

### UTAH

### UPLAND GAME

### Annual Report

1991

### Prepared by:

### Dean L. Mitchell Upland Game Biologist

and

Linda Erickson Office Technician/Word Processing

### PUBLICATION NO. 92-11

Annual Performance Report for Federal Aid Project W-65-R-39 Job A-4 Utah Department of Natural Resources DIVISION OF WILDLIFE RESOURCES

An Equal Opportunity Employer

Timothy H. Provan Director

#### "FINDING OUT HOW MANY THERE ARE LEFT <u>EFT IS</u> CENSUS. THE LEAST PURPOSES OF GAME **OF** THE IONS RESPONSE **OF** GAME MEASURI NG ΡΛ P THE **O**R ΤÔ NGES BERATE ACCI DEN \_ D CHA PURPOSE. IS THE BIG ĪN ΕN TRO MENT **ARDSTICK** OF IS CENSUS THE CON NUOUS 11 **SUCCESS** ION. CONSERVA URE ΤN OR FΔ

## ALDO LEOPOLD 1932

### TABLE OF CONTENTS

Ĭ

| Abstract  |   |
|---|---|
| Objectives  |   |
| Procedures  |   |
| Recommendations   |   |
| Introduction  |   |
| Pheasant  |   |
| Migratory Upland Game Birds                             |   |
| Mourning Dove   |   |
| Band-tailed Pigeon                                      | ; |
| Chukar Partridge  | 1 |
| Sage Grouse   | ; |
| Forest Grouse   | 3 |
| Quail   | ) |
| Hungarian Partridge                                     | 5 |
| Wild Turkey   | 2 |
| Sharp-tailed Grouse                                     | C |
| White-tailed Ptarmigan                                  | 3 |
| Rabbits and Hares                                       | 9 |
| Cottontail Rabbit                                       | 0 |
| Snowshoe Hare   | 6 |
| Appendix A: Weather Conditions                          | 5 |
| Appendix B: License Sales                               | 0 |
| Appendix C: DWR Summer Survey Effort                    | 4 |
| Appendix D: Season Dates, Bag Limits, Areas Open - 1991 | 9 |
| Appendix E: Summary Harvest Questionnaire Returns       | 4 |
|   |   |

<u>Page</u>

### JOB PERFORMANCE REPORT

RESEARCH PROJECT SEGMENT (Inventory)

| State: <u>UTAH</u>     | Project Title: <u>Statewide Wildlife</u><br>Management Inventory  |
|------------------------|---|
| Project No.: <u>W</u>  | -65-R-39  |
| Job Title:<br>Job No.: | <u>Statewide Upland Game</u><br>A-4   |
| Period Covered:        | October 1, 1990 to September 30, 1991   |
| Abstract:              | This report includes upland game inventory and harvest data<br>collected during 1990-91. Results of annual inventory and<br>harvest surveys and long-term trends of indices derived by<br>each method are included in the final report. Data obtained<br>in 1991 are compared to 1990 and long-term averages.   |
| Objectives:            | <ol> <li>Conduct efficient breeding and production surveys.</li> <li>Determine annual harvest, hunters, hunter-days and<br/>success rates.</li> <li>Inventory critical seasonal habitat.</li> </ol>   |
| Procedures:            | Annual inventory procedures for ring-necked pheasants<br>included winter sex ratio counts and summer roadside counts.<br>The winter sex ratio counts were conducted from December 15,<br>1990 through February 10, 1991, as snow cover conditions<br>allowed. Indices derived include hen-cock ratios and<br>pheasants observed per 100 hours. Annual summer roadside<br>counts (three or more per route) were conducted from July<br>22-August 22 on permanently established routes. Indices<br>derived include pheasants per mile, young per mile, young<br>per hen, mean brood and percent of hens with young.<br>Mourning dove breeding population trend was determined via |
|                        | the annual call count survey. This survey is part of a  |

the annual call count survey. This survey is part of a nationwide survey administered by the U. S. Fish and Wildlife Service. Call counts are conducted over 15 permanent, 20-mile routes. One count was made on each route between May 20-30.

Random brood counts were conducted on chukar and gray partridge, forest grouse (ruffed and blue), sage grouse, sharp-tailed grouse, wild turkey and quail from June 15-August 22. Indices derived for each species include mean brood size, young per 100 adults and birds observed per 100 hours of effort.

Sage grouse strutting ground counts and sharp-tailed grouse dancing ground counts were conducted from March 15-May 15. Total cocks counted, average cocks per ground and percent change from 1990 for comparable grownds were determined on a county basis.

The Gambel's quail long period waterhole counts were completed in July and August. Limited valley quail random brood counts were made in several counties.

Cottontail rabbit roadside counts were conducted over preestablished routes between July 15 and August 22. Indices derived include rabbits per mile and young per 100 adults.

Harvest questionnaires were mailed to determine the harvest of upland game birds, cottontail rabbit, and snowshoe hare. A sample of eligible licensees from the current year's (1991) resident small game license file and 1991 combination license file was used. The modified computerized pull-apart mailer was again used to obtain harvest data. Separate questionnaires were mailed to all band-tailed pigeon, ptarmigan and wild turkey permittees. Indices derived include total hunters, hunter-days, total harvest and hunter success per day, plus success for each season.

The upland game questionnaires were processed by the Division of Wildlife Resources Information Systems Services Subsection. General upland game questionnaires as well as band-tailed pigeon, wild turkey and ptarmigan questionnaires were analyzed by Game Management Section personnel.

Upland game hunters were checked at checking stations, and random field bag checks were made during each hunting season. Indices derived include bag per hunter (per day), bag per 100 hours, average hours per hunter-day and average hours per bird bagged. Additional sex and age composition data were compiled for some species using wing samples collected at checking stations.

Recommendations:

This project should be continued for the purpose of determining trends of upland game populations and harvest statistics in Utah.

## INTRODUCTION

The objective of Utah's upland game management program is to provide recreational hunting opportunity for sportsmen within the limits of the annual harvestable surplus for each species. It is based on the knowledge that populations of upland game experience relatively high rates of annual turnover. High reproductive rates are naturally compensated for by high death rates, whether hunting is allowed or not. Annual surveys are conducted to measure the production, trend and harvest of each upland game population hunted.

This is the twenty-first edition of this annual Upland Game Report. It is an annual performance report of information compiled during inventory and harvest surveys conducted under Federal Aid Project W-65-R, Job A-4. Information contained herein was compiled by conservation officers, biologists, game managers and the upland game management staff of the Utah Division of Wildlife Resources.

This report serves as a handbook of inventory and harvest data. It is designed primarily for the use of those concerned with the management of upland game in Utah. A separate section is devoted to each species of upland game in Utah. Data are presented primarily in tabular form with limited narrative comment. The first page of each section provides a brief summary of population status and trend as indicated by inventory and harvest data.

During 1991, a total of 61,922 Utah sportsmen spent 435,726 days afield in pursuit of various upland game species (Table 1). The harvest of upland game totaled 452,664 animals. The proportion of the total upland game hunters which pursued each species is shown in Table 2 and the percentage failing to bag at least one bird (from general mail questionnaire) of each species in Table 3. The regulations for 1991 upland game hunting seasons are shown in Appendix D.



|                        | Hunters | Total   | Hunter  | Bag Per    | Bag/Hunter |
|------------------------|---------|---------|---------|------------|------------|
| Species                | Afield  | Harvest | Days    | Hunter-Dav | For Season |
| Pheasant               | 42,813  | 72,612  | 150,096 | 0.48       | 1.70       |
| Mourning dove          | 22,632  | 178,853 | 78,405  | 2.28       | 7.90       |
| Chukar partridge       | 10,577  | 24,355  | 34,010  | 0.72       | 2.30       |
| Sage grouse            | 8,018   | 12,542  | 18,596  | 0.67       | 1.56       |
| Forest grouse          | 14,421  | 34,897  | 42,517  | 0.82       | 2.42       |
| Ouail                  | 2,644   | 5,775   | 7,393   | 0.78       | 2.18       |
| Hungarian partridge    | 2,662   | 7,376   | 8,367   | 0.88       | 2.77       |
| Wild turkey            | 532     | 59      | 1,792   | 0.03       | 0.11       |
| Band-tailed pigeon     | 15      | 31      | 20      | 1.50       | 2.10       |
| Sharp-tailed grouse    |         |         |         |            |            |
| White-tailed ptarmigan | 13      | 26      | 16      | 1.63       | 2.00       |
| Cottontail rabbit      | 21,137  | 111,407 | 82,772  | 1.35       | 5.27       |
| Snowshoe hare          | 3,427   | 4,731   | 11,742  | 0.40       | 1.38       |
|                        |         |         | <u></u> | <u>.</u>   |            |

Table 1. Summary of harvest statistics from the general mail questionnaire for 1991.

### GENERAL HARVEST QUESTIONNAIRE

Harvest statistics were obtained from a random sample of licensed hunters by their response to a hunter questionnaire. The combined upland game bird and rabbit-hare questionnaire was again used.

A total of 15,054 upland game questionnaires, a 13.93 percent sample, were mailed. Of the total, 661 (4.39%) questionnaires were undeliverable. Of the 14,393 questionnaires delivered, 6,212 (43.16%) useable upland game questionnaires were returned. Of those, 2,655 purchased a license but did not hunt upland game. By dividing the total of 108,067 eligible licensees by the usable returns (6,212), a projection factor of 17.396491 is derived.

The 1991 hunter questionnaire sample size increased from 1990, so a follow-up questionnaire was not sent to those who failed to return the first one. A high rate of return is desirable in order to obtain an adequate sample of harvest estimates in counties where hunting pressure and harvest are limited. Extremely small samples from these counties tend to over estimate the harvest and thus bias the results. Although harvest, number of functions and days-afield may be over-estimated where small samples are obtained, harvest per hunter-day should be relatively precise.

 $\mathbf{r}_{\mathbf{r}}$ 

Table 2. Number and percent of total upland game hunters afield who reported hunting each species during 1984-91.

| •  | •           |        |        | Number o | ber of Hunters |        |        |        |       |       |       | Percent of Total | Total |       |       |       |
|--|-------------|--------|--------|----------|----------------|--------|--------|--------|-------|-------|-------|------------------|-------|-------|-------|-------|
| Species  | 1984        | 1985   | 1986   | 1987     | 1988           | 1989   | 1990   | 1991   | 1984  | 1985  | 1986  | 1987             | 1988  | 1989  | 1990  | 1991  |
| Phessant   | 76.840      | 688,69 | 59,987 | 57,118   | 54,514         | 50,382 | 47,025 | 42,813 | 86.90 | 86.20 | 84.20 | 83.80            | 77.70 | 75.20 | 72.50 | 69,14 |
| Mourning Dove  | 30.573      | 28.183 | 26,583 | 22,553   | 22,457         | 21,696 | 22,700 | 22,632 | 11.10 | 9.80  | 13.20 | 16.50            | 16.00 | 16.30 | 17.30 | 36.55 |
| Chukar   | 9.846       | 7.930  | 9,397  | 11.276   | 11,237         | 10,910 | 11,195 | 10,577 | 34.60 | 34.70 | 37.30 | 33.00            | 32.00 | 32.40 | 35,00 | 17.08 |
| Sage Grouse  | 8.283       | 7.586  | 7,233  | 7,060    | 8,499          | 9,002  | 9,014  | 8,018  | 9.40  | 9.40  | 10.20 | 10.40            | 12.10 | 13.40 | 13.90 | 12.95 |
| Farest Grouse  | 11.511      | 12.645 | 12.117 | 14,831   | 16,947         | 16,988 | 14,591 | 14,421 | 13.00 | 15.60 | 17.00 | 21.80            | 24.20 | 25.40 | 22.50 | 23.29 |
| Ouail  | 3.654       | 3,065  | 2,432  | 2,549    | 2,671          | 3,111  | 2,614  | 2,644  | 4.10  | 3.80  | 3.40  | 3.70             | 3.80  | 4.60  | 4.00  | 4.27  |
| - Hungarian Partridge                                    | 1.523       | 1.157  | 1.257  | 2.010    | 2,471          | 2,136  | 2,305  | 2,662  | 1.70  | 1.40  | 1.80  | 2.90             | 3.50  | 3.20  | 3.60  | 4.30  |
| Wild Turkey**  | 155         | 270    | 335    | 347      | 421            | 477    | 531    | 532    | 0.30  | 0.30  | 0.50  | 0.50             | 0.60  | 0.70  | 0.80  | 0.86  |
| Sharp-Tailed Grouse**                                    | 1           | 1      |        | I,       | :              |        | 1      | I      |       | -     | :     |                  | 1     | ļ     |       |       |
| Band-Tailed Pigeon <sup>4,*</sup>                        | i           | i      | à      | ;        | Π              | 13     | 6      | 15     | ł     | 0.10  |       | Ĩ                | 0.00  | 0.03  | 0.01  | 0.02  |
| White-Tailed Ptarmigan**                                 | 20          | 2      | 14     | <b>6</b> | 15             | ŝ      | Π      | 13     | 0.02  | 0.02  | 0.02  | 0.01             | 0.02  | 0.00  | 0.02  | 0.02  |
| Cottontail Rabbit  | 18,616      | 14.059 | 13,992 | 20,322   | 24,076         | 22,878 | 23,079 | 21,137 | 21.10 | 17.30 | 19.60 | 29.80            | 34.30 | 34.20 | 35.60 | 34.13 |
| Snowshoe Hare  | 3,796       | 3,365  | 3,277  | 3,702    | 4,725          | 4.895  | 4,095  | 3,427  | 4.30  | 4.10  | 4.60  | 5.40             | 6.70  | 7.30  | 6.30  | 5.53  |
| Total Hunters***   | 88,431      | 81,119 | 71,259 | 68,174   | 70,142         | 67,017 | 64,868 | 61,922 |       |       |       |                  |       |       |       |       |
| <ul> <li>Includes both spring and fall bunts.</li> </ul> | fall bunts. |        | -      |          |                |        |        | ÷      |       |       |       |                  |       |       |       |       |

++Although wild turkey, sharp-tailed grouse, band-tailed pigeon and white-tailed ptarmigan harvest was determined by separate questionnaires, it is assumed that these hunters are derived from the same group of hunters who reported hunting other uptand game bird species.

\*\*\*This is not the total of the columns because many upland game hunters hunted more than one species.

|          |                | Phoneant       |            |            | Phoneaut Mourning Days | a Dave |                | Chukar     |              |          | Sage Grouse | use |     | Forest Grouse | rouse      |            | Quall    |          | LINGUL   | Hungarian Lauruge | 2             |
|----------|----------------|----------------|------------|------------|------------------------|--------|----------------|------------|--------------|----------|-------------|-----|-----|---------------|------------|------------|----------|----------|----------|-------------------|---------------|
|          | Na             | Hunting        |            | 2          | Hunting                |        | <sup>9</sup> Z | Hunting    |              | 9N       | Ilunting    | ļ   | z   | Hanting       |            | °N<br>N    | Hunting  |          | ŝ        | Hunting           |               |
|          |                | Trine          | 2          | Ran        | Trins                  | 5      | Bag            | Trios      | \$           | Bag      | Trips       | 52  | Bag | Trips         | ж          | Bag        | Trips    | 8        | Bag      | Trips             | 8             |
| ľ        | 114            | ad 11          | 2          |            | 5                      |        | 118            | 110        | 6            | 1        | .           | •   | :   | 1             |            | 109        | 383      | 78       | 1        | 123               | 5             |
| •        | t 14           | 207 6          | 1 9        | 5          | ARK (                  |        | 147            | 291        | Ŧ            | ı        | ł           | 1   | I   | 1             | 1          | 3          | 201      | 31       | 36       | 108               | 33            |
| - •      | 00C            | C00'7          | 4          | 2 A        |                        | ~ 9    | 346            |            | : 4          | 220      | 468         | 47  | 188 | 281           | 67         | Ľ          | 305      | 8        | 56       | 177               | 33            |
|          |                | 110.0          | 1 2        | 8 5        | 140                    | • •    |                | 272        | 5            | 4        | 154         | 20  | 144 | 229           | 63         | 16         | 316      | 30       | 62       | 150               | 4             |
|          | 1116           | 3,115          | <b>R</b> 2 | 00         | 100                    | ~      | 201            | 000        | ; ;          | 2 S      | 168         | 4   | 225 | 311           | 1          | 128        | 371      | 34       | 93       | 233               | <del>\$</del> |
|          | 1,102          | 4,009          | G          | ı į        |                        | 1      |                | 100        | 5 9          | 3 2      | 111         | Ŧ   | 113 | 331           | 40         | 106        | 315      | 34       | 63       | 219               | 29            |
| -        | 1,242          | 4,297          | 29         | 136        | 1,067                  | n :    |                | 190        | fi           | <b>1</b> | 161         | F 2 | 104 | 100           | 5          | 191        | 424      | <b>8</b> | 116      | 315               | 37            |
|          | 1,353          | 4,833          | 28         | 153        | 1,319                  | 12     | 411            | 0          | 2            | 901      | 007         |     |     |               | ; ;        | 171        | 457      | 2        | 132      | 347               | 28            |
| -        | 1,422          | 5,223          | 11         | 236        | 1,312                  | 81     | 495            | 1,095      | ÷.           | 182      | 449         | 41  |     | 8             | 1          | 1          |          | 5        | 148      | 202               | 5             |
| T        | 1,897          | 5.335          | 36         | 214        | 1,568                  | 14     | 647            | 1,250      | 3            | 241      | 648         | 5   | 273 | 92 i          | 7          | 791        | <u>_</u> | 6 4      | <u> </u> | 110               | 9             |
| 1        | 1.546          | 4,686          | 33         | 193        | 1,274                  | 15     | 466            | 962        | <del>8</del> | 257      | 603         | \$  | 209 | 666           | 5          | 971        | 514      | \$ \$    |          | 1                 | ₽ :           |
| -        | 1.783          | 5.049          | 35         | 210        | 1.333                  | 16     | 464            | 934        | ନ            | 234      | 625         | 37  | 123 | 673           | ŝ          | 162        | 382      | 42       | 19       | 710               | -             |
|          | 1 743          | 4 617          | ŝ          | 270        | 1.421                  | 19     | 457            | 827        | 55           | 259      | 593         | 44  | 271 | 794           | 34         | 154        | 339      | \$       | 120      | 224               |               |
|          | 1 650          | 1 600          | 2          | 000        | 1 506                  | : #    | 414            | 824        | 20           | 226      | 553         | 41  | 329 | 1,019         | 32         | 128        | 311      | 41       | 5        | 196               | <del>6</del>  |
|          | 1 3 47         | 101            | 8 P        | Ì          | 1.951                  | 1      | 511            | 955        | 5            | 292      | 668         | 4   | 388 | 1,259         | 31         | 157        | 333      | 47       | 108      | 227               | <b>\$</b>     |
|          | 1 473          | E KNA          | 44         | 110        | 1.554                  | 1      | 607            | 1.105      | 5            | 374      | 901         | 4   | 535 | 1,354         | 4          | 177        | 406      | 44       | 121      | 220               | 55            |
|          | 1 720          | FUC K          | •          | Ì          | 1 700                  | 1      | 408            | 781        | 2            | 259      | 783         | 33  | 371 | 1,131         | 33         | 105        | 266      | 66       | 87       | 184               | 4             |
|          | PLO            |                | 2          | 205        | 1 067                  | 1      | 115            | 943        | 5            | 394      | 572         | 41  | 528 | 1,388         | 38         | 125        | 299      | 42       | 106      | 247               | 3             |
|          | 5014<br>507    | OLD V          | 3 5        | 010        | 1 086                  | 7      | 143            | 882        | 39           | 301      | 853         | 35  | 419 | 1,419         | 30         | 103        | 306      | 3        | 8        | 246               | 33            |
|          | , nc, 1        | 0C04           | 5 5        | 242        | 10211                  | 1 2    | 518            | 1.150      | <b>9</b> 9   | 400      | 1.215       | 33  | 585 | 1,691         | 35         | 130        | 403      | 33       | 119      | 243               | 4             |
| • •      | 77767 -        | 1,904          | 3 5        |            | 11/2/4                 | 3 5    | 84             | 1.008      | 4            | 392      | 944         | 4   | 501 | 1,283         | 39         | 87         | 254      | 5        | 75       | 206               | 36            |
| - •      | 1,004<br>1,205 | 100%           | 2.06       |            | 1.550                  | 3 2    |                | 699        | 4            | 184      | 493         | 37  | 297 | 741           | <b>\$</b>  | 5          | 241      | ą        | 57       | 172               | 33            |
| - •      | c)/.1          |                | 92         | 67         |                        | 2 2    |                | 100        | 9 9          | 192      | 620         | 4   | 325 | 919           | 35         | 128        | 292      | 4        | 68       | 176               | 51            |
| - •      | 1,708          | 677.6          | 9 8        | 505        | 1000                   | 2 2    | 00F            | 680        | •            | 707      | 729         | 9   | 006 | 1.118         | 27         | 105        | 310      | 3        | 82       | 225               | 36            |
| - 1      | 2645           | (i);           | 3 8        | 8          | 10017                  | 2 2    | 100            | 648<br>E48 | ; ;          | 202      | 435         | 4   | 270 | 640           | 42         | 84         | 189      | 44       | 51       | 76                | 6             |
| - 1      | 1,245          | 040°           | 3 8        |            | 11/11                  | 2 2    | 107            | 940        | 3            | IVI      | 176         | 4   | 228 | 656           | 35         | 61         | 148      | 14       | 35       | 54                | 8             |
|          | 1,207          | 4,017          | 3 8        | 177        | MC I                   | 3 ¥    | 127            | 117        | PP           | 130      | 346         | 2   | 221 | (67           | 33         | <b>3</b> 8 | 125      | 46       | 36       | 61                | 8             |
| -        | 11,211         | 610,5<br>220,6 | 3 5        | 477<br>477 |                        |        | to.            | 112        | ; ;;         | ). S     | 307         | 8   | 143 | 671           | 21         | \$         | 111      | 41       | 34       | 94                | 35            |
| •        | 863            | 1.00,1         | 5          | <b>P</b>   | 1 575                  | •      | 1/1<br>1/1     | ig E       | 3 9          | 5        |             | e e | 224 | 1,184         | 19         | 63         | 171      | 37       | 13       | 154               | 47            |
| 1988     | 210,1          |                | 8 5        |            | C45(1                  |        |                | PLY        | 4            | 181      | 468         | 30  | 157 | 961           | 27         | 89         | 160      | \$       | 53       | 108               | ę,            |
| -        | 071,1          | 20%*7          | 8 ¥        |            | 1 124                  |        |                | 5          | 4            | 162      | 483         | 34  | 233 | 810           | <b>3</b> 6 | 5          | 132      | 4        | 46       | 117               | 8             |
|          | 200            | 2.461          | 34         | 507<br>507 | 1.301                  | 2 2    | 60g            | 809        | 5            | 198      | 461         | \$  | 262 | 829           | 32         | 69         | 152      | Ş        | 67       | 153               | 4             |
| AVERAGES | S              | i<br>T         |            |            |                        | ;      |                |            | 9            |          |             | UP  |     |               | 37         |            |          | 38       |          |                   | \$            |
| 2        |                |                | 2          |            |                        | 4      |                |            | f            |          |             |     |     |               | 2          |            |          |          |          |                   |               |

·

1. 2

The upland game questionnaire is designed to monitor statewide harvest trend from year to year. The more extensively a species is hunted, the more accurately the questionnaire measures the trend data. In an effort to improve the accuracy of indices for species which receive very little hunting pressure and harvest, and which have low densities and limited distribution, a unique questionnaire for that species is mailed to the permit holder. This method has been used for wild turkey, band-tailed pigeon, sharp-tailed grouse and white-tailed ptarmigan.

The annual harvest report is sometimes criticized for being inaccurate and without value. However, report users must recognize that the accuracy of the questionnaire is based on some basic assumptions. These assumptions are: (1) the returned useable sample is a completely random sample, (2) respondents recorded data correctly, i.e., they clearly understood the questionnaire, (3) respondents recorded data accurately, did not guess or lie, and (4) respondents correctly identified species hunted. If these assumptions are not met, projections of harvest by county may be over-estimated due to nonrespondent or memory biases. Extreme caution should be used in the interpretation of estimated harvest and hunters for specific species in specific counties. Rather, the long-term trend in these indices should be used in managing the populations.

Presently, the Upland Game Annual Report contains the best data available and therefore constitutes the basic facts of upland game management. Although this report has its limitations, the trend data is valuable in making professional judgments regarding upland game populations and harvest.

The annual report is used in wildlife planning. It can be used to establish relative importance among species and for developing new resources through transplants or habitat developments. It points out areas of needed research by indicating problems and possible causes. It documents population trends and it combines all this inventory information into one easily accessible publication. Thus it is used extensively by federal land management agencies in environmental impact statements and management plans. It will become increasingly more important in developing management plans and assessing impacts on wildlife habitat.

## **RING-NECKED PHEASANT**

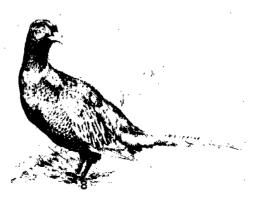
### SUMMARY

The 1990-91 winter was slightly colder and drier than normal and survival of brood stock should have been good. Vegetation continues to return to inundated mud flats around the Great Salt Lake after the flooding of 1984. Aquatic vegetation such as cattails and bulrushes conducive to winter survival or pheasants is re-establishing noticeably.

Weather conditions during the nesting season were questionable in 1991. Statewide monthly average temperatures were at or above normal; average precipitation was above normal across several climatic subdivisions in May. Temperatures were at or above normal through the rest of the year and precipitation was scatterd and sparse. Pheasants observed on roadside routes was below 1990, but more hens appeared to have young. Overall, production was slightly up.

Harvest statistics compiled from the questionnaire indicated the same success compared to 1990. Overall, harvest declined and was below average, resulting in the lowest recorded values since 1950. Opening weekend success was up compared to the previous year based upon field bag check data and despite cold, windy and snowy hunting conditions.

Hunters did not react to reduced pheasant populations in a strongly density dependent fashion. While they hunted fewer days or not at all, the reduction in hunters and days hunted was not in direct proportion to the reduction in harvest.



Results of the survey for the winter of 1990-91 and long-term trends are shown in Tables 1, 2 and Figure 1 of this section. Statewide comparisons to the winter of 1989-90 and the 10-year (1981-90) average are as follows:

|                                    | Winter of      | <u>Percent ch</u> | <u>ange from</u> |
|------------------------------------|----------------|-------------------|------------------|
|                                    | <u>1990-91</u> | <u>1989-90</u>    | <u>Average</u>   |
| Total pheasants counted (roadside) | 844            | -<br>+77          | -75              |
| Hens per cock                      | 2.65           | +56               | -28              |
| Pheasants observed per 100 hours   | 1,468          | +152              | +3               |
| Total hours effort (roadside)      | 59             | -28               | -71              |

Winter sex ratio counts indicated a 152 percent increase in pheasants observed per unit of effort. However, density estimates can be biased due to the non-random nature of the survey technique if effort is minimal. The hen-cock ratio increased 56 percent from 1990 and was 28 percent below the long-term average. Access was good, but the lack of snow kept birds scattered. Less than average effort also reduced pheasant observations. No effort was expended in the Southeastern Region.

#### Roadside Counts

A summary of summer roadside pheasant counts for 1991 is shown in Table 3. Long-term trends of pheasants per mile, young per mile, young per hen, percent of hens with young and mean brood size are found in Tables 4-8 and Figure 2. Summer 1991 survey results compared to 1990 and the previous 10-year (1981-90) average follow:

|                            |             | Perce                 | nt change from                           |
|----------------------------|-------------|-----------------------|--|
|                            | <u>1991</u> | <u>1990</u>           | Average                                  |
| Total pheasants observed   | 793         | ÷<br>1 <b>⊷23</b> /14 | -62                                      |
| Total miles driven         | 1,566       | <b>48</b>             | -25                                      |
| Pheasants per mile         | 0.51        | -28                   | -47 # Adda                               |
| Average brood size         | 4.61        | -4                    | ——————————————————————————————————————   |
| Young per hen              | 3.81        | · +3                  | -3 · · · · · · · · · · · · · · · · · · · |
| Percent of hens with young | 79          | · +4                  | · * 6 · 佛······························· |
|                            |             | · · ·                 |  |

December 1990 through January 1991 temperatures were below normal. The average monthly temperatures of all reporting stations in the seven climatic subdivisions in Utah were 4.1 degrees below normal in January (Appendix A). Temperatures in April, May and June were just below normal. Precipitation was below normal during April and June and slightly above normal in March and April. Temperature was below normal and precipitation slightly above normal during the critical month of May. Could, wet weather may have affected brood success. Below average accumulated precipitation continued through December, January and February resulting in drought over most of the state. Average temperatures throughout the state were at or above average July through October. Brood survival may again have declined due to hot, dry weather during July through August. Pheasant production increased from 1990 in Utah. The statewide density index (pheasants per mile) decreased (0.51) in 1991, and is 47 percent below the 10-year average.

Vegetation is re-establishing on alkaline soils around the Great Salt Lake. This should increase both the quantity and quality of wintering, nesting and brood-rearing habitat in Box Elder, Salt Lake, Davis and Weber counties.

#### <u>Harvest</u>

### Hunter Questionnaire

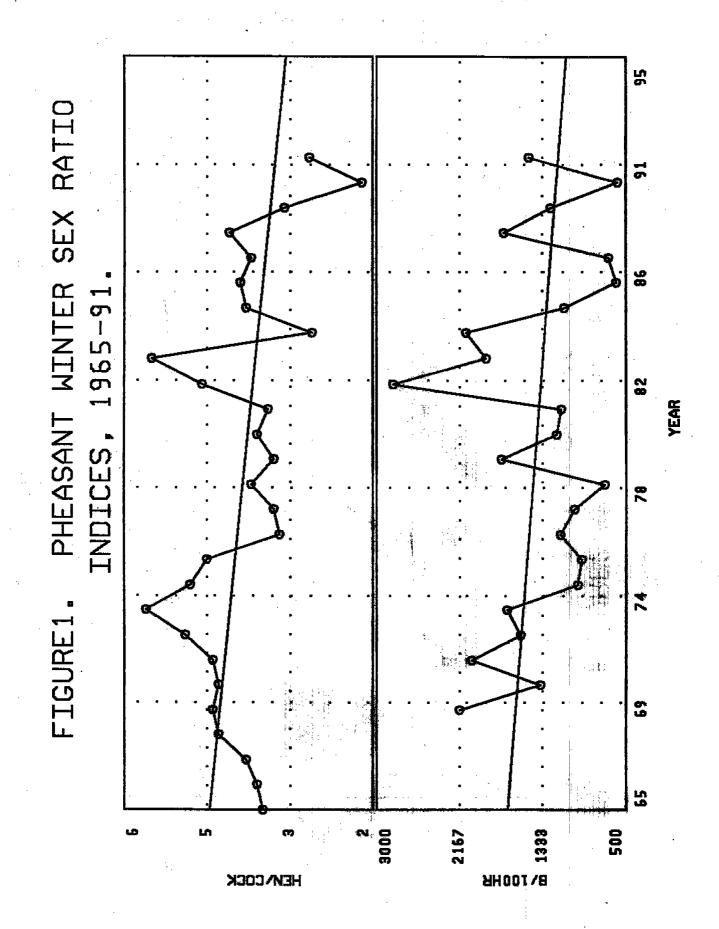
Results of the hunter questionnaire for 1991 are shown in Table 9. Long-term trends of pheasants bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 10-12, and total statewide harvest statistics in Table 13. A comparison of 1991 harvest statistics to 1990 and the previous 43-year average follow:

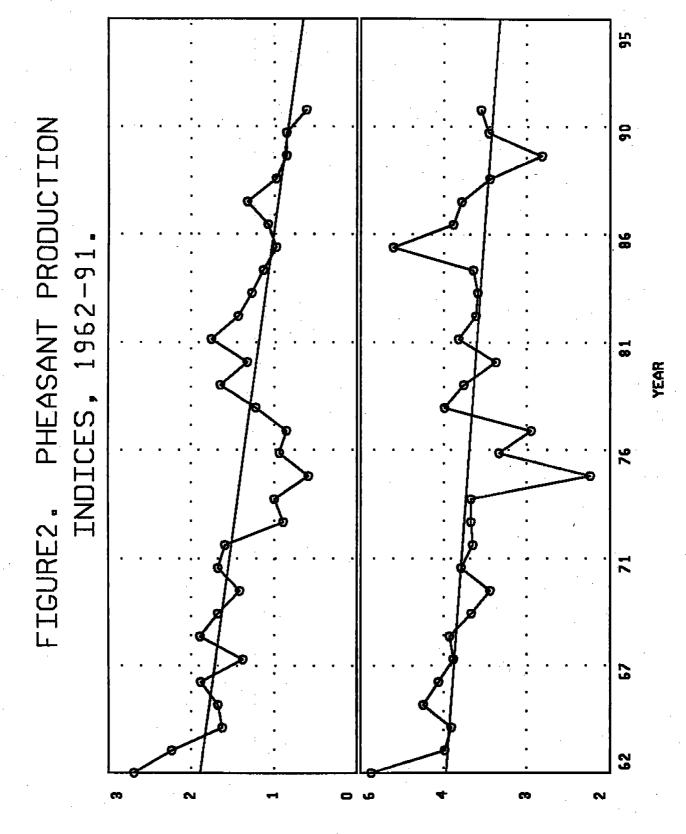
|                          | · · · ·     | Percent | <u>change from</u> |
|--------------------------|-------------|---------|--------------------|
| :                        | <u>1991</u> | 1990    | <u>Average</u>     |
| Pheasant hunters         | 42,813      | 9       | -46                |
| Pheasants harvested      | 72,612      | -8      | -66                |
| Hunter-days afield       | 150,096     | -7      | -33                |
| Pheasants per hunter-day | 0.48        | ~1      | -50                |
| Pheasants per hunter     | 1.70        | +1      | -36                |

Hunters were told to expect poor hunting with slight improvement in hunter success compared to 1990. Low breeding populations were noted. Production was slightly below average for those birds which made it through the winter. We predicted 55,000 hunters and 70,000 harvest.

Total hunters again decreased (9 percent) from 1990 and remained below the long-term (1948-90) average. Total harvest decreased 8 percent from 1990. Hunter success (pheasants per hunter-day) decreased 1 percent from 1990. Pheasants per hunter increased (1 percent), but remains 36 percent below the long-term average.

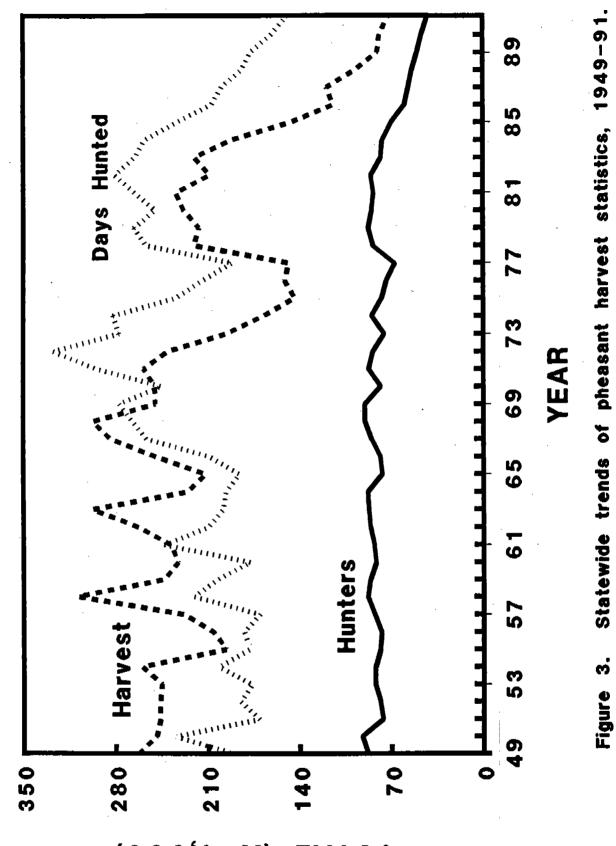
Long-term trends (1948-91) of total hunters, hunter-days, harvest and hunter success are shown in Figures 3 and 4. Generally, the recent trend is toward less hunter-days with declines in total pheasants harvested and hunter success. We believe this is the result of the accumulated effects of loss of quantity and quality of habitat due to urbanization, flooding, modern agricultural practices, and habitat fragementation resulting in increased predation.

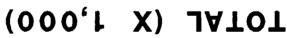


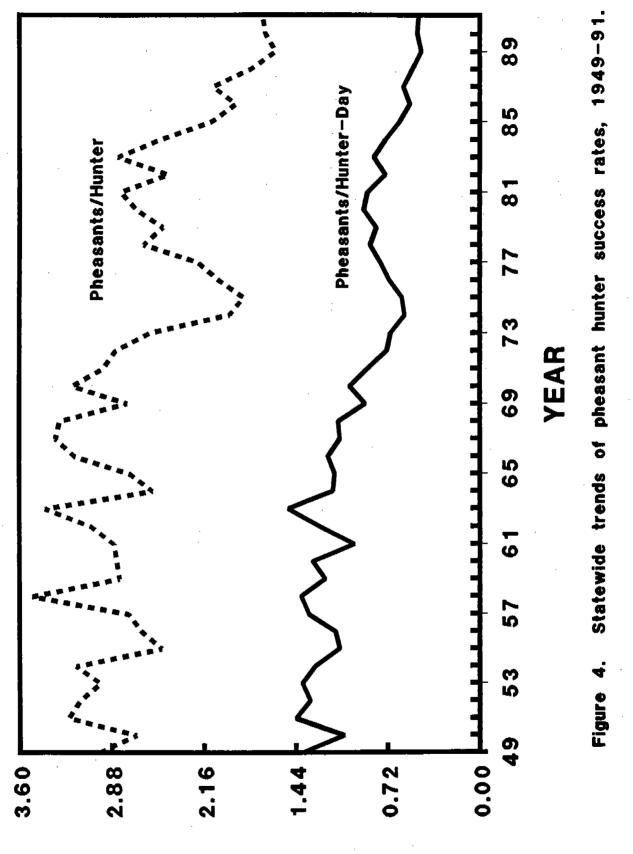


**БН/МІГЕ** 

NHOA\2NY







Ì

Ĩ

Ì

YAD A39 QNA A3TNUH A39 STNASA3H9

ۍ ۵ PHEASANT FIELD BAG CHECK 16 87 1966 - 9168 YEAR INDICES, 78 Œ 74 FIGURES. 2 99 22 30 13 0 S -

PHA 100HR



- ----

### Field Bag Checks

A summary of pheasant field bag check data for 1991 is shown in Table 14. The hunter success trend determined via bag checks since 1986 is found in Table 15 and Figure 5. A comparison of 1991 data, on a statewide basis, to 1990 and the previous 10-year (1981-90) average follow:

|  | <u>1991</u>  | <u>Percent</u><br><u>1990</u> | <u>change from</u><br><u>Average</u> |
|--|--------------|-------------------------------|--------------------------------------|
| Total hunters checked                                | 217          | -87                           | -93                                  |
| Total hours hunted<br>Pheasants per hunter           | 570          | -89                           | -94                                  |
| (complete hunts)<br>Pheasants bagged per 100 hours   | 0.42<br>16   | +17<br>+33                    | -19<br>+10                           |
| Average hours per hunter-day                         |              |                               |                                      |
| (complete hunts)                                     | 2.63<br>6.26 | -17                           | -24<br>-14                           |
| Hours hunted per pheasant bagged<br>(complete hunts) | 0.20         | -20                           | -14                                  |

On opening day, weather conditions were cold, windy and snowy.

Hunting pressure was down in most of Utah. This is attributed to decreasing pheasant populations and to less land being accessible to hunters.

Although hunter pressure and numbers decreased from 1990, persistent hunters seemed to be successful in taking birds and spent less time doing so.

Statewide hunter success was up compared with 1990 through the entire season.

Table 1. Summary of pheasant winter ser ratio counts, 1990-91.

| LANKE 14 JUNIOR OF DIRESSAULT WILLIEF SEE FRUD COUNTS, 1996-9- |               | uer ser ra | 190 COUN | 1641 3 | .1.           |            |                        |          |        |          |         | 2               |                  |          |              |
|--|---------------|------------|----------|--------|---------------|------------|------------------------|----------|--------|----------|---------|-----------------|------------------|----------|--------------|
| ,  |               |            | Net venu |        |               |            | r ausonig Unservations | IBAT9804 | SUOI   |          | 2       | Ettort Expended | ended            |          | Pheas. Obs./ |
| Region and   |               |            |          | Hens/  | Cocks/        |            |                        |          | llens/ | Cocks/   | Vehicle | llou            | llours of Effort | fort     | 100 Hours of |
| County   | Cncks         | Hens       | Total    | Cock 1 | Cock 100 Hens | Cocks      | Hens                   | Total    | Ceck   | 100 Hens | Miles   | Vehicle         | Walk             | Total    | Road. Obs.   |
| Northern Region  |               |            |          |        |               |            |                        |          |        |          |         |                 |                  |          |              |
| Rox Elder  | 30            | 74         | 104      | 2.47   | 41            | 1          | ł                      | I        | 1      | 1        | 1       | ;               | 1                | I        | 1            |
| Cache  | ۲             | 24         | 31       | 3.43   | 29            | I          | 1                      | ł        | ł      | 1        | ;       | ł               | I                | 1        | I            |
| Davis  | 10            | 69         | 61       | 6.9    | 14            | T          | 4                      | ŝ        | 4.00   | 25       | 111     | Ŷ               |                  | 7        | 1.317        |
| Morgan   | 1             | ł          | ł        | ł      | ł             | ì          | 1                      | 1        | ł      | :        | :       | 1               | · 1              | . ;      |              |
| Rich   | <b>1</b><br>- | 1          | I        | I      | 1             | :          | ł                      | ł        | ł      | I        | ;       | ŧ               | ;                | 1        | · 1          |
| Summit   | I             | 1          | 1        | I      | 1             | 1          | ł                      | I        | ł      | ł        | 1       | !               | ł                | ł        | :            |
| Weber  | •             | 28         | 37       | 3.11   | 32            | I          | ł                      | :        | ;      | ;        | ı       |                 | 1                | :        |              |
| REGIONAL TOTALS  | 26            | 195        | 251      | 3.48   | 29            | _          | 4                      | S        | 4.00   | 25       | Ξ       | 6               | -                | F        | 4.183        |
| Central Region   |               |            |          |        |               |            |                        |          |        |          |         |                 |                  |          |              |
| Juah   | 6             | 32         | 41       | 3.56   | 28            | 1          | ł                      | I        | ;      | I        | æ       | 7               | 1                | 2        | 2.050        |
| Salt Lake  | 11            | 19         | 30       | 1.73   | 58            | :          | :                      | 1        | !      | 1        | 65      | un              | ;                | un un    | 909          |
| Sanpele  | :             | I          | ł        | 1      | 1             | 1          | ł                      | I        | ;      | I        | 1       | I               | I                | • 1      | ,<br>,<br>,  |
| Tonele   | I             | 1          | I        | ł      | ;             | 1          | 1                      | I        | ł      | I        | I       | !               | 1                | 1        |              |
| Utah   | ¥             | 222        | 368      | 4 0K   | 30            |            |                        |          |        |          | 164     |                 | ł                | •        |              |
| Wasatch  | )             | 1          | <b>i</b> | Ŗ      | 2 1           | <b>1 1</b> |                        | 1        | 1      | <b>I</b> | 0.01    | <u>ה</u>        | I.               | q        | 1,187        |
| REGIONAL TOTALS  | 5             | 274        | 110      | 4 77   | 14            |            |                        |          |        |          |         | ;   ;           | ;                | ،<br>ا : |              |
| Southern Region  |               |            |          |        |               |            |                        |          |        |          | (and    |                 |                  | 4        | 1401         |
| Beaver   | 1             | 1          | 1        | I      | 1             | I          | 1                      | I        | :      | t        | 1       | ł               | 1                | 1        | 1            |
| Iron   | <b>I</b>      | 1          | 1        | :      | :             | ı          | ł                      | I        | :      | 4        | 1       | I               | :                | 1        | 1            |
| Kane   | 1             | 1          | 1        | ł      | I             | I          | 1                      | I        | 1      | 1        | I       | I               | I                | I        | I            |
| Millard  | 19            | 42         | 61       | 2.21   | 45            | 90         | 11                     | 19       | 1.38   | £        | 35      | <b>6</b> 23     | I                | -        | 2.033        |
| Piute  | 1             | I          | I        | ı      | ł             | ł          | I                      | ł        | 1      | ı        | 1       | ;               | I                | 1        | 1            |
| Sevier   | ł             | I          | I        | ı      | 1             | 1          | 1                      | 1        | I      | ı        | 1       | 1               | I                | I        | ı            |
| Washington   | 1             | I          | I        | 1      | 1             | ł          | ł                      | 1        | I      | 1        | 1       | 1               | 1                | I        | I            |
| Wayne  | 1             | 1          | 1        | I      | ł             | ł          | ł                      | I        | 1      | I        | I       | 1               | 1                | 1        | ı            |
| <b>REGIONAL TOTALS</b>   | 19            | 42         | 61       | 2.21   | 45            | œ          | =                      | 1        | 1.38   | 73       | 35      | •               | •                |          | 2.033        |
| Northeastern Region  |               |            |          |        |               |            |                        |          |        |          |         |                 |                  |          |              |
| Daggett  | I             | .1         | I        | 1      | ł             | ł          | ;                      | ł        | 1      | 1        | ı       | ł               | I                | :        |              |
| Duchesne   | 13            | 21         | 33       | 1.75   | -ST           | ł          | :                      | I        | I      | . 1      | 276     | 17              | I                | 17       | 200          |
| Uintah   | 79            | 81         | 160      | 1.03   | 98            | 1          | ł                      | ł        | ;      | 1        | 158     | 10              | 1                | 10       | 1,600        |
| REGIONAL TOTALS  | 91            | 102        | 193      | 1.12   | 8             | 1          | ,                      | ;        | 1      | 1        | 434     | 27              | 1                | 27       | 728          |
| Southeastern Region  |               |            |          |        |               |            |                        |          |        |          |         |                 |                  |          |              |
| Carbon   | 1             | I          | i I      | 1      | 1             | 1          | ;                      | 1        | 1      | t        | 1       | :               | 1                | t        | <b>t</b>     |
| Emery  | ı             | 1          | I        | 1      | ł             | 1          | ;                      | 1        | 1      | 1        | 1       | 1               | I                | 1        | I            |
| Grand  | . 1           | I          | 1        | ł      | 1             | ł          | I                      | ;        | 1      | ł        |         | I               | I                | ſ        | I            |
| San Juan   | 1             | ı          | 1        | 1      | 1             | 1          | ł                      | ſ        | 1      | :        | ı       | 1               | I                | 1        | I            |
| <b>REGIONAL TOTALS</b>   | :             |            | 1        | 1      | 1             | .          | ,                      | 1        | 1      |          | .       | 1               | 1                | ,        |              |
| STATE TOTALS   | 231           | 613        | 844      | 2.65   | 38            | 0          | 15                     | 24       | 1.67   | 8        | 808     | 5               | -                | 8        | 1.468        |
|  |               |            | ,        |        | 2             |            |                        |          |        | 22       | 200     | 3               | -                | 5        | 1977 L       |

| 1985-866            | 1985-86 |         | 19-06241 |        | 00-70/1    |        | 20-00/F |         | NK-K0K1 |         | 1990-91 |          |           |       |
|---------------------|---------|---------|----------|--------|------------|--------|---------|---------|---------|---------|---------|----------|-----------|-------|
| Region and          | llens/  | Birde/  | Hens/    | Birds/ | Hens/      | Birds/ | Hens/   | Birds/  | llens/  | Birds/  | Hens/   | Birda/   | Average   |       |
| County              | Cock    | 100 IIr | Cock     | 100 Hr | Cock       | 100 Hr | Cock    | 100 IIr | Cnek    | -100 Hr | Cock    | 100 Nr   | 1985-1990 | -     |
| Northern Region     |         |         |          |        |            |        |         |         |         |         |         |          |           |       |
| Box Flder           | 2.40    | 1,453   | 5.80     | 524    | 4.80       | 2,409  | 4.20    | 3,100   | 3.60    | 533     | 2.50    | ;        |           |       |
| Cache               | 17.20   | 585     | 6.80     | 168    | 4,30       | 390    | 2.70    | 386     | 1.30    | 253     | 3.40    | ł        |           |       |
| Davia               | 8.40    | 4,683   | 7.50     | 340    | 11.30      | 2,667  | 7.30    | 2,014   | 1.50    | 143     | 6.90    | 1,317    |           |       |
| Morgan              | :       | 1       | ł        | ł      | 1          | ;      | 1       | :       | I       | I       | :       | :        |           |       |
| Rich                | I       | ;       | ł        | ł      | 1          | 1      | ;       | 1       | :       | 1       | 1       | ł        |           |       |
| Summit              | 1       | 1       | 1        | t      | I          | 1      | 1       | ł       | 1       | 1       | ł       | ;        |           |       |
| Weber               | 27.00   | 350     | 6.30     | 587    | I          | 1      | 4.20    | 700     | 3.30    | 90      | 3.10    | 1        |           |       |
| REGIONAL TOTALS     | 5.50    | 1,235   | 6.30     | 379    | 5.50       | 925    | 4.10    | 833     | 2.10    | 321     | 3.50    | 4,183    | 4.50      | 1,313 |
| Central Region      |         |         |          | 1      |            |        |         |         |         |         |         |          |           |       |
| Juab                | 3.40    | 947     | 3.90     | 1,005  | 1.80       | 1,486  | 2.40    | 1,100   | 2.10    | 1,100   | 3,60    | 2,050    |           |       |
| Salt Lake           | 0.00    | •       | 4.50     | 1      | 2.50       | 233    | 1       | ł       | 1.30    | 533     | 1.70    | 600      |           |       |
| Sanpete             | 0.00    | •       | 6.10     | 3,900  | 6.40       | 1,920  | ł       | i       | I       | :       | I       | 1        |           |       |
| Tooele              | 0.00    | •       | ı        | ;      | ł          | I      | ł       | :       | 08.0    | 2,600   | I       | ł        |           |       |
| Ulah                | 3.40    | 965     | 3.50     | 857    | 2.40       | 2,650  | 10.00   | 2,200   | 2.60    | 1,016   | 5.00    | 1,787    |           |       |
| Wasstch             | 1       | 1       | 1        | t      | I          | 1      | 1       | 1       | :       | ;       | ł       | 1        |           |       |
| REGIONAL TOTALS     | 3.40    | 958     | 3,80     | 1,057  | 3.00       | 1,893  | 3.50    | 1,344   | 1.70    | 1,119   | 4,20    | 1,541    | 3.27      | 916,1 |
| Southern Region     |         |         |          |        |            |        |         |         |         |         |         |          |           |       |
| Beaver              | ł       | I       | 1        | ŀ      | 1          | 1      | 1       | ł       | ł       | 1       | ł       | ;        |           |       |
| Iron                | ł       | I       | 1        | I      | 1          | ł      | I       | 1       | ł       | ;       | ł       | 1.       |           |       |
| Kane                | 1       | 1       | 1        | ł      | I          | 1      | 1       | 1,      | 1       | I       | 1       | <b>1</b> |           |       |
| Millard             | ŀ       | 1       | 3.40     | 4,270  | 7.00       | 4,135  | 1.60    | 8       | 1       | I       | 2.20    | 2,033    |           |       |
| Piute               | 1       | I       | 1        | I      | <b>I</b> . | I      | 1       | 1       | I       | :       | 1       | 1        |           |       |
| Sevier .            | 1       | ł       | 9.60     | 209    | 3.90       | 2,230  | 12.60   | I       | 1       | ł       | ł       | I        |           |       |
| Washington          | 1       | ı       | 1        | I      | I          | :      | I       | :       | I       | I       | 1       | t        |           |       |
| Wayte               | I       | ł       | ı        | 1      | 1          | ,      | 1       | 1       | 1       | 1       | :       | •        |           |       |
| REGIONAL TOTALS     | t       | ı       | 3.70     | 2,943  | 5.40       | 3,105  | 3.60    | 2,778   | 1       | 1       | 2.20    | 2,033    | 4.23      | 2,942 |
| Northeastern Region |         |         |          |        |            |        |         |         |         |         |         |          |           |       |
| Daggett             | 1       | :       | 1        | 1      | I          | I      | :       | 1       | !       | 1       | :       | 1        |           |       |
| Duchesne            | 1.50    | 241     | 2.00     | 139    | 1.60       | 1,400  | 1.60    | 1,425   | 0.80    | 550     | 1.80    | 200      |           |       |
| Uinteh              | 1.70    | 285     | 0.60     | 145    | 1.60       | 1,627  | 2.50    | 5,600   | 1.20    | 526     | 1.00    | 1,600    |           |       |
| REGIONAL TOTALS     | 1.50    | 255     | 1.20     | 1,741  | 1.80       | 1,556  | 1.80    | 1,889   | 1.10    | 660     | 1.10    | 728      | 1.42      | 1,138 |
| Southeastern Region |         |         |          |        |            |        |         |         |         |         |         |          |           | •     |
| Carbon              | 2.50    | 538     | 1        | ł      | 1          | 1      | 1       | t       | ŀ       | 1       | ı       | 1        |           |       |
| Enery               | 1,60    | 161     | ;        | 1      | :          | 1      | 1       | 1       | 1       | 1       | ;       | 1        |           |       |
| Grand               | 1       | I       | I        | 1      | ł          | 1      | 1       | ł       | I       | 1       | ı       | 1        |           |       |
| San Juan            | 1       |         | r        | 1      | 1          | 1      | ;       | 1       | 1       | 1       | ı       | 1        |           |       |
| REGIONAL TOTALS     | 2.00    | 261     | 1        | 1      | 1          | 1      | 1       | 1       | 1       | 1       | 1       | ı        | 2.00      | 261   |
| STATE TOTALS        | S.      | 50.5    |          |        |            |        |         |         | 1       | 2       | 45.6    |          |           |       |

and a line Table 2. Vrend of pheasant

| Young/<br>Ad. 11en<br>1.92<br>1.57<br>3.00<br>4.15<br>4.17<br>4.17<br>4.17<br>4.17<br>4.17<br>4.17<br>4.17<br>4.17   |                        |        |       |       | Dis        | Distinct | Mixed | 2     | Adults w/o | 0/M 5    |        |       |          |            |         |        |          |         |          |
|--|------------------------|--------|-------|-------|------------|----------|-------|-------|------------|----------|--------|-------|----------|------------|---------|--------|----------|---------|----------|
|  | Region and             |        | Total |       | Bru        | spor     | Obse  | ц.    | Your       | ji<br>B  | Total  | Total |          | Total      | Pheas./ | Young/ | Mean     | Young/  | Tellens  |
| Integrat  | County                 | Routes | Miles | Total | Hens       | Young    | Hens  | Young | Cocks      | Hens     | Hens   | Young |          | Pheas.     | Mile    | Mile   | Brood    | Ad. Hen | M/Young  |
| $ \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$  | orthern Region         |        |       |       |            |          |       |       |            |          |        |       |          |            |         |        |          |         | ş        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | ox Elder               | H      | 170   | N)    | ŝ          | 16       | S     | ۲     | 1          | 4        | 12     | 23    | -        | 36         | 0.21    | 0.14   | 3.20     | 1.92    | 2        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | ache                   | ÷      | 158   | ŝ     | ŝ          | 26       | Π     | 01    | <b>ان</b>  | -        | 23     | 36    | ŝ        | 64         | 0.41    | 0.23   | 5.20     | 1.57    | P        |
|  | avis                   | T      | 70    | •7    | Ð          | 18       | t     | :     | ••         | ÷        | 9      | 18    | e,       | 27         | 65.0    | 0.26   | · 6.00   | 3.00    | 8        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | in roam                | I      | 1     | I     | ;          | ;        | 1     | ŀ     | 1          | 1        | I      | 1     | 1        | ı          | 1       | ı      | ł        | ı       | <b>I</b> |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | 194 oct                | 1      | I     | 1     | :          | I        | ;     | :     | :          | ł        | 1      | ı     | 1        | I          | ı       | 1      | ł        | 1       | I        |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |                        | 1      | l     | ļ     | l          |          |       |       |            | ١        | 1      | 1     | I        | - :        | ı       | ۱      | 1        | 1       | 1        |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  | ummit                  | I      | 1.    | I I   | 1          | 1        | 1     | 1     | •          | •        | 1      | 24    |          | Ę          | 94.0    | A 20   | 21 F     | 2.60    | 99       |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | leber .                | -      | 87    | ۵     | •          | 36       | 1     | 1     | e<br>  ا   | +<br> ;  | 2      | 9     | -        | 3          | 0.10    | 110    |          | 2 10    | 9        |
| Region         Regin         Regin         Regin <td>EGIONAL TOTALS</td> <td>٢</td> <td>485</td> <td>19</td> <td><u>6</u></td> <td>\$</td> <td>16</td> <td>11</td> <td>15</td> <td><u>_</u></td> <td>12</td> <td></td> <td><u>e</u></td> <td>6</td> <td>cc.n</td> <td>1770</td> <td></td> <td>41.4</td> <td></td>   | EGIONAL TOTALS         | ٢      | 485   | 19    | <u>6</u>   | \$       | 16    | 11    | 15         | <u>_</u> | 12     |       | <u>e</u> | 6          | cc.n    | 1770   |          | 41.4    |          |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | entral Region          |        |       |       |            |          |       |       |            |          |        |       |          |            |         |        |          |         |          |
| $ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$  | ab da                  | I      | 1     | ł     | 1          | ł        | ı     | 1     | ı          | 1        | 1      | 1     | ł        | ı          | I       | 1      | 1        | L       | 1        |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  | lt Lake                | -      | 41    | 4     | 4          | 17       | 4     | 21    | 4          | 1        | 6      | 38    | 4        | 51         | 1.24    | 0.93   | 4.25     | 4.22    | 8        |
| NAL TOTALS         7         96         7         9         7         9         1         77         9         25         0.55         5.13         6.13         5.13         6.14         5.14         6.14         5.14         6.14         5.14         6.14         5.14         6.14         5.14         6.14         5.14         5.14         5.15         5.14         5.14         5.15         5.14         5.14         5.15 <t< td=""><td>unate</td><td>•</td><td>180</td><td>12</td><td>12</td><td>9</td><td>12</td><td>61</td><td>m</td><td>ŝ</td><td>29</td><td>121</td><td>÷</td><td>153</td><td>0.85</td><td>0.67</td><td>5.00</td><td>4.17</td><td>22</td></t<>  | unate                  | •      | 180   | 12    | 12         | 9        | 12    | 61    | m          | ŝ        | 29     | 121   | ÷        | 153        | 0.85    | 0.67   | 5.00     | 4.17    | 22       |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | unpette<br>Stanla      | • -    | 5     | { =   | -          | -        | 0     | 27    | 0          | l        | -      | 27    | 0        | 28         | 0.55    | 0.53   | 1,       | 1       | ł        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |                        |        | 224   |       |            | 41       | v     | 89    | 4          | 4        | 17     | 109   | 4        | 130        | 0.58    | 0.49   | 5.13     | 6.41    | 76       |
|  | launtah<br>Laantah     | ן נ    |       | •     | <b>,</b> 1 | : 1      | • 1   | 1     | :          | I        | 1      | ı     | I        | ı          | 1       | 1      | I        | ł       | ı        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | ECTONAL TOTALS         |        | 404   | 2     | 24         | 118      | 11    | 177   | =          | =        | 56     | 295   | Ξ        | 362        | 0.73    | 0.59   | 4.92     | 5.27    | 8        |
|  | ithern Revion          |        |       |       |            |          |       |       |            |          |        |       |          |            |         |        |          |         |          |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 94PT                   | 1      | 1     | 1     | 1          | 1        | ł     | 1     | :          | 1        | 1      | ı     | ł        | ł          | 1       | ı      | I        | 1       | :        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | arfield                | 1      | I     | 1     | 1          | 1        | 1     | I     | :          | 1        | 1      | I     | 1        | ı          | 1       | :      | I        | 1       | 1        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |                        | 1      | ł     | 1     | 1          | ł        | 1     | I     | ;          | 1        | ı      | 1     | 1        | ł          | 1       | 1      | 1        | 1       | 1        |
| 1         1         120         5         2         7         4         0         7         34         4         5         3.0         4.86         1           1         1         1         10         5         5         27         2         7         4         0         7         34         4         5         0.38         5.40         4.86         1           return         - </td <td>- 46</td> <td>I</td> <td>ł</td> <td>:</td> <td>1</td> <td>;</td> <td>1</td> <td>ł</td> <td>1</td> <td>I</td> <td>1</td> <td>I</td> <td>1</td> <td>ł</td> <td>ł</td> <td>1</td> <td>1</td> <td>1</td> <td>ł</td>  | - 46                   | I      | ł     | :     | 1          | ;        | 1     | ł     | 1          | I        | 1      | I     | 1        | ł          | ł       | 1      | 1        | 1       | ł        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | illard                 | -      | 120   | N)    | NO.        | 27       | 7     | 1     | 4          | •        | ٢      | 34    | 4        | <b>4</b> 5 | 0.38    | 0.28   | 5.40     | 4.86    | 100      |
| wgton         - <td>te<br/>te</td> <td>1</td> <td>   </td> <td>t</td> <td>1</td> <td>;</td> <td>ł</td> <td>;</td> <td>ł</td> <td>1</td> <td>1</td> <td>I</td> <td></td> <td>1</td> <td>I</td> <td>ı</td> <td>I</td> <td>1</td> <td>I</td>  | te<br>te               | 1      |       | t     | 1          | ;        | ł     | ;     | ł          | 1        | 1      | I     |          | 1          | I       | ı      | I        | 1       | I        |
| uppediation     -  |                        | 1      | 1     | I     | 1          | ;        | 1     | 1     | I          | 1        | I      | 1     | 1        | I          | I       | 1      | <b>I</b> | 1       | ľ        |
| NAL TOTALS     I   | rici<br>sobitotot      |        |       | 1     | 1          | ł        | 1     | 1     | I          | 1        | ı      | ł     | ;        | ı          | I       | ı      | 1        | ļ       | ł        |
| NAL TOTALS     1     120     5     27     2     7     4     0     7     34     4     45     0.38     5.40     4.86       stern Region     -  |                        |        | 1     | 1     | I          | 1        | 1     | 1     | ı          | 1        | ı      | I     | 1        | 1          | I       | I      | I        | ı       | T        |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$   | ayue<br>BCIONAL TOTALS | -      | 120   |       | ľ          | 27       | 2     | F     | 4          | -        | -      | 34    | 4        | 45         | 0.38    | 0.28   | 5.40     | 4.86    | 100      |
| Internation     Inte   | artheastern Region     | •      |       | ,     |            |          |       |       |            |          |        |       |          |            |         |        |          |         |          |
| ne     3     278     16     16     72     10     46     15     5     31     118     15     164     0.59     0.42     4.50     3.81       NAL TOTALS     4     375     22     92     10     46     17     5     37     138     17     192     0.21     3.33     3.33       NAL TOTALS     4     375     22     22     92     10     46     17     5     37     138     17     192     0.21     3.33     3.33       Istern Region     -  | areaft                 | I      | 1     | 1     | 1          | :        | :     | ;     | 1          | 1        | 1      | ;     | ł        | ł          | ı       | ł      | 1        | ŀ       | 1        |
| 1         97         6         6         20         0         2         20         2         0         6         20         2         3.33   | uchesne                | 17     | 278   | 16    | 16         | 11       | 10    | 46    | 15         | N)       | 31     | 118   | 15       | 164        | 0.59    | 0.42   | 4.50     | 3.81    | 28       |
| NALTOTALS 4 375 22 22 92 10 46 17 5 37 138 17 192 0.51 0.37 4.18 3.73<br>Istern Region<br>1 90 4 4 18 0 2 1 0 4 20 1 25 0.18 0.22 4.50 5.00<br>1 90 4 2 1 0 4 20 1 25 0.18 0.22 4.50 5.00<br>1 90 4 4 18 0 2 1 0 4 20 1 25 0.28 0.22 4.50 5.00<br>NALTOTALS 1 90 4 4 18 0 2 1 0 4 20 1 25 0.28 0.24 4.50 5.00<br>NALTOTALS 1 90 4 4 18 0 2 1 0 4 20 1 25 0.28 0.24 4.50 5.00<br>NALTOTALS 1 90 4 4 18 0 2 1 0 4 20 1 25 0.38 0.51 0.38 4.61 3.81<br>NALTOTALS 1 90 4 24 34 34 34 37 155 5.00<br>NALTOTALS 1 90 4 4 1 34 34 34 37 155 5.00<br>NALTOTALS 1 90 4 4 1 34 34 34 34 37 155 5.00<br>NALTOTALS 1 90 4 4 4 18 0 2 1 0 4 20 1 25 0.38 0.51 0.38 4.61 3.81<br>NALTOTALS 1 90 4 0 2 1 0 0 2 1 0 38 4.61 3.81<br>NALTOTALS 1 90 4 0 1 2 0.38 0.51 0.38 4.61 3.81<br>NALTOTALS 1 90 4 0 1 2 0.38 0.51 0.38 4.61 3.81<br>NALTOTALS 1 90 4 0 1 2 0.51 0.58 4.61 3.81<br>NALTOTALS 1 90 5.00<br>NALTOTALS 1 90 6.02<br>NALTOTALS 1 90 7.02<br>NALTOTALS 1 9 | intah                  | -      | 5     | 9     | 9          | 20       | ¢     | 0     | 1          | 0        | 9      | 20    | 7        | 28         | 0.29    | 0.21   | 3.33     | 3.33    | 울 <br>   |
| Istern Region Istern Region I 90 4 4 18 0 2 1 0 4 20 1 25 0.28 0.22 4.50 5.00 I 90 4 4 18 0 2 1 0 4 20 1 25 0.28 0.22 4.50 5.00 II 90 4 4 18 0 2 1 0 4 20 1 25 0.28 0.22 4.50 5.00 INAL TOTALS I 90 4 4 1 18 0 2 1 0 4 20 1 25 0.28 0.22 4.50 5.00 INAL TOTALS I 90 4 4 4 18 0 2 1 0 4 20 1 25 0.28 0.21 4.50 5.00 INAL TOTALS I 90 4 4 4 18 0 2 1 0 4 20 1 25 0.28 0.21 4.50 5.00 INAL TOTALS I 90 4 4 4 18 0 2 1 0 4 20 1 25 0.28 0.21 4.50 5.00 INAL TOTALS I 90 4 4 4 18 0 2 1 0 4 20 1 25 0.28 0.21 4.50 5.00 INAL TOTALS I 90 4 4 4 18 0 2 1 0 4 20 1 25 0.58 0.51 0.38 4.61 3.81 INAL TOTALS I 90 4 4 4 18 0 2 1 0 4 20 1 28 0.51 0.38 4.61 3.81 INAL TOTALS I 90 4 4 4 18 0 2 1 0 0 4 18 73 0.51 0.38 4.61 3.81 INAL TOTALS I 90 4 4 4 18 0 2 1 0 0 4 18 73 0.51 0.38 4.61 3.81 INAL TOTALS I 90 4 4 4 18 0 0 2 1 0 0 4 18 73 0.51 0.38 4.61 3.81 INAL TOTALS I 90 4 4 4 18 0 0 2 1 0 0 4 18 73 0.51 0.38 4.61 3.81 INAL TOTALS I 90 4 4 4 18 0 0 2 1 0 0 4 18 73 0.51 0.38 4.61 3.81 INAL TOTALS I 90 4 4 4 18 0 0 2 1 0 0 4 18 73 0.51 0.38 4.61 3.81 INAL TOTALS I 90 4 0 4 4 4 18 0 0 2 1 0 0 4 18 73 0.51 0.38 4.61 3.81 INAL TOTALS I 90 4 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4   | EGIONAL TOTALS         | 4      | 375   | 22    | 22         | 26       | 9     | 4     | 17         | Ś        | 37     | 138   | 17       | 192        | 0.51    | 0.37   | 4.18     | 3.73    | 80       |
| I     90     4     4     18     0     2     1     0     4     20     1     25     0.28     0.22     4.50     5.00       II     90     4     4     18     0     2     1     0     4     20     1     25     0.28     0.22     4.50     5.00       III     - <td< td=""><td>outheastern Region</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>  | outheastern Region     |        |       |       |            |          |       |       |            |          |        |       |          |            |         |        |          |         |          |
| 1     90     4     4     18     0     2     1     0     4     20     1     25     0.28     0.22     4.50     5.00       m     - </td <td>arbon</td> <td>1</td> <td>ł</td> <td>I</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>I</td> <td>:</td> <td>1</td> <td>1</td> <td>ł</td> <td>1</td> <td>ı</td> <td>I</td> <td>1</td> <td>t</td> <td>1</td>  | arbon                  | 1      | ł     | I     | 1          | 1        | 1     | 1     | I          | :        | 1      | 1     | ł        | 1          | ı       | I      | 1        | t       | 1        |
| au   |                        | -      | ŝ     | 4     | 4          | 81       | 0     | 7     | -          | 0        | ,<br>Ŧ | 20    | -        | 52         | 0.28    | 0.22   | 4.50     | 5.00    | 100      |
| ALS 1 90 4 4 18 0 2 1 0 4 20 1 25 0.28 0.22 4.50 5.00  |                        | 1      | 1     | 1     | 1          |          | 1     | I     | 1          | :        | :      | I     | ;        | :          | 1       | 1      | I        | ł       | I        |
| ALS 1 90 4 4 18 0 2 1 0 4 20 1 25 0.28 0.22 4.50 5.00  | an luon                | 1      | 1     | I     | 1          | ;        | 1     | 1     | ı          | ۱        | 1      | :     | :        | :          | :       | 1      | 1        | •       | 1        |
| <u> </u>   | FGIONAL TOTALS         | -      | 8     | 4     | 4          | 18       | •     | 64    | -          | -        | 4      | 20    | 1        | 25         | 0.28    | 0.22   | 4.50     | 5.00    | 2        |
|  |                        | •      |       | ·     |            |          |       |       |            |          |        |       |          |            |         | ~ ~    |          |         | 2        |

| Region and             |      |      |      |      |      | Үеаг |      |      |      |      |      | Anorogo |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|---------|
| County                 | 1981 | 1982 | 1981 | 1984 | 1985 | 1986 | 1987 | 1988 | 1080 | 1000 | 1001 | ATCI 40 |
| Northern Region        |      |      |      |      |      |      |      |      |      |      |      | AC-10(1 |
| Box Elder              | 1.40 | 0.74 | 1.43 | 0.46 | 16.0 | 0.44 | 0.81 | 0.63 | 0.19 | 0.32 | 0.21 |         |
| Cache                  | 0.92 | 0.17 | 0.04 | 0.19 | 0.03 | 0.01 | 0.29 | 0.13 | 0.23 | 60.0 | 0.41 |         |
| Davis                  | 1.38 | 0.83 | 1.07 | 0.34 | 0.71 | 1.04 | 1.30 | 0.70 | 0.41 | 0.48 | 0.39 |         |
| Morgan                 | ;    | ł    | :    | ł    | ł    | ł    | 1    | t    | ł    | ł    | 1    |         |
| Rich                   | ł    | 1    | :    | ł    | ;    | ;    | :    | 1    | ı    | I    | ł    |         |
| Summit                 | I    | :    | ł    | ł    | :    | ł    | ı    | 1    | :    |      | :    |         |
| Weber                  | 3.17 | 1.79 | ;    | 1.56 | 1    | 0.86 | ł    | :    | 0.52 | 1.26 | 0.48 |         |
| REGIONAL TOTALS        | 1.56 | 0.78 | 0.63 | 0.48 | 0.50 | 0.43 | 0.71 | 0.40 | 0.30 | 0.42 | 0.35 | 0.62    |
| Central Region         |      |      |      |      |      |      |      |      |      |      |      |         |
| Juab                   | 0.89 | 0.61 | 0.44 | 0.77 | 0.48 | 0.71 | :    | 0.38 | 0.50 | 0.14 | ł    |         |
| Salt Lake              | 1.09 | 1.24 |      | 1.80 | 0.46 | 2.10 | 1.08 | ł    | 1    | 1.26 | 1.24 |         |
| Sanpete                | 5.25 | 1.78 | 1.74 | 0.99 | 1.87 | 1.15 | 1.63 | 1.18 | 1.70 | 1.23 | 0.85 |         |
| Tonele                 | 0.48 | 0.45 | 1    | :    | 1    | 0.20 | 0.08 | 0.15 | 1    | 0.17 | 0.55 |         |
| Utah                   | 2.19 | 3.89 | 1.95 | 2.21 | ı    | 2.13 | 2.35 | 2.00 | 1.00 | 1.45 | 0.58 |         |
| Wasatch                | :    | ;    | :    | 1    | 1    | :    | ł    | 1    | t    | ł    | :    |         |
| REGIONAL TOTALS        | 2.01 | 2.15 | 1.72 | 1.49 | 1.35 | 1.61 | 1.79 | 1.42 | 1.50 | 1.09 | 0.73 | 1.6[    |
| Southern Region        |      |      |      |      |      |      |      |      |      |      |      |         |
| Beaver                 | 0.63 | 0.66 | 0.23 | 0.11 | 0.63 | 0.23 | 0.08 | 0.17 | 1    | I    | 1    |         |
| Garfield               | ı    | ı    | 1    | 1    | 1    | ł    | ł    | ł    | I    | ł    | 1    |         |
| lren                   | 1.24 | 0.07 | 0.31 | 1    | 0.06 | 10.0 | ł    | ł    | 1    | I    | 1    |         |
| Kane                   | I    | ;    | ł    | 1    | 1    | ;    | 1    | I    | I    | ł    | 1    |         |
| Millard                | 2.85 | 1.15 | 1.28 | 1.09 | 2.27 | 86.0 | 0.67 | 0.67 | 1    | 0.34 | 0.38 |         |
| Piute                  | 1    | ł    | ł    | ł    | ;    | ł    | 1    | I    | 1    | 1    | ł    |         |
| Sevier                 | 0.87 | 1.37 | 1.27 | 1.52 | 0.62 | 1.82 | 1.95 | 1.30 | 1    | 1    | ł    |         |
| Washington             | 1.41 | 0.62 | 1.09 | ı    | 0.13 | 1.30 | 0.47 | 0.22 | 90.0 | ł    | I    |         |
| Wayne                  | 1.04 | 0.40 | 0.26 | 1    | 0.39 | 0.38 | 1    | ł    | 1    | 1    | I    |         |
| <b>REGIONAL TOTALS</b> | 0.17 | 1.05 | 0.94 | 1.09 | 1.25 | 1.07 | 1.44 | 0.78 | 0.06 | 0.34 | 0.38 | 0.82    |
| Northeastern Region    |      |      | l    |      |      |      |      |      |      |      |      |         |
| Daggett                | 1    | ł    | ;    | ;    | 1    | ł    | 1    | :    | ł    | ı    | ı    |         |
| Duchesne               | 0.84 | 0.73 | 0.72 | 0.68 | 0.16 | 0.44 | 0.38 | 0.58 | 0.39 | 0.93 | 0.59 |         |
| Uintah                 | 1.05 | 1.27 | 2.97 | 1.33 | 0.35 | 0.46 | 0.55 | 0.45 | 0.24 | 0.52 | 0.29 |         |
| REGIONAL TOTALS        | 0.91 | 0.90 | 1.39 | 16.0 | 0.22 | 0.45 | 0.45 | 0.54 | 0.32 | 0.71 | 0.51 | 9.68    |
| Southeastern Region    |      |      |      |      |      |      |      |      |      |      |      |         |
| Carbon                 | 1.22 | 0.28 | 0.42 | I    | 0.12 | 0.26 | . 1  | ;    | ł    | ł    | 1    |         |
| Emery                  | 0.74 | 0.74 | 0.32 | 0.66 | 0.83 | 0.73 | 0.72 | 1.06 | 1.00 | 0.61 | 0.28 |         |
| Grand                  | :    | 1    | 1.70 | 1    | 1    | ı    | ł    | ł    | ł    | ł    | 1    |         |
| San Juan               | ı    | ,    | 1    | 1    | 1    | ı    | ;    | ;    | ı    | 1    | t    |         |
| <b>REGIONAL TOTALS</b> | 0.86 | 0.61 | 0.39 | 0.66 | 0.59 | 0.61 | 0.72 | 1.06 | 1.00 | 0.61 | 0.28 | 0.71    |
| STATE TOTALS           | 1.46 | 1.19 | 1.06 | 0.94 | 0.81 | 0.80 | 1.10 | 0.81 | 0.71 | 0.71 | 0.51 | 0.96    |
|                        |      |      |      |      |      |      |      |      |      |      |      |         |

Table 4. Trend of pheasants observed per mile during summer roadside pheasant counts, 1981-91.

Table 5. Trend of young observed per mile during summer roadside pheasant counts, 1981-91.

ļ

h

| County                 | 1981 | 1982 | 1983 | 1984     | 1985     | 1986 | 1987 | 1988 | 1989 | 1990 | 1661 | 1981-90 |
|------------------------|------|------|------|----------|----------|------|------|------|------|------|------|---------|
| Northern Region        |      |      |      |          |          |      |      |      |      |      |      |         |
| \ Box Elder            | 1.07 | 0.44 | 0.63 | 0.26     | 0.65     | 0.29 | 0.62 | 0.39 | 0.16 | 0.27 | 0.14 |         |
| 2 Cache                | 0.70 | 0.11 | 0.00 | 0.13     | 0.02     | 0.00 | 0.25 | 0.09 | 0.14 | 0.06 | 0.23 |         |
| 3 Davis                | 0.81 | 0.43 | 0.78 | 0.16     | 0.35     | 0.85 | 0.98 | 0.52 | 0.22 | 0.31 | 0.26 |         |
| 👍 Morgan               | 1    | 1    | 1    | ;        | ł        | ł    | 1    | ł    | I    | I    | I    |         |
| S Rich                 | 1    | 1    | ı    | ł        | <b>:</b> | ł    | 1    | 1    | :    | :    | 1    |         |
| (, Summit              | I    | ł    | ł    | ı        | 1        | ;    | 1    | I    | I    | 1    | 1    |         |
| ブ Weber                | 2.38 | 1.38 | ı    | 1.27     | 1        | 0.76 | 1    | ı    | 0.39 | 0.97 | 0:30 |         |
| REGIONAL TOTALS        | 1.15 | 0.52 | 0.35 | 0.32     | 0.33     | 0.32 | 0.55 | 0.28 | 0.20 | 0.32 | 0.21 | 0.43    |
| <b>Central Region</b>  |      |      |      | -        |          |      |      |      |      |      |      |         |
| & Juab                 | 0.63 | 0.42 | 0.36 | 0.58     | 0.39     | 0.57 | 1    | 0.17 | 0.08 | 0.09 | ł    |         |
| 9 Salt Lake            | 0.57 | 0.84 | 1    | 1.26     | 0.31     | 1.62 | 0.79 | ł    | 1    | 0.97 | 0.93 |         |
| ( <sup>0</sup> Sanpete | 4.40 | 1.44 | 1.44 | 0.76     | 1.54     | 0.00 | 1.23 | 0.96 | 1.30 | 16.0 | 0.67 |         |
| \\ Tooele              | 0.28 | 0.22 | 1    | ;        | :        | 0.08 | 0.07 | 0.07 | 1    | 0.10 | 0.53 |         |
| (2 Utah                | 1.68 | 1.52 | 1.34 | 1.36     | :        | 1.68 | 1.81 | 1.57 | 1.00 | 1.15 | 0.49 |         |
| رح Wasatch             | I    | ł    | 1    | 1        | ı        | ł    | 1    | 1    | 1    | 1    | ı    |         |
| REGIONAL TOTALS        | 1.51 | 1.63 | 1.31 | <u> </u> | 1.09     | 1.26 | 1.37 | 1.11 | 1.10 | 0.87 | 0.59 | 1.22    |
| Southern Region        |      |      | -    |          |          |      |      |      |      |      |      |         |
| (4 Beaver              | 0.54 | 0.48 | 0.17 | 0.08     | 0.51     | 0.14 | 0.07 | 0.10 | ł    | 1    | ł    |         |
| ر) Garfield            | 1    | 1    | 1    | ;        | ı        | 1    | 1    | I    | ł    | ł    | I    |         |
| \6 Iron                | 1.07 | 0.04 | 0.23 | ı        | 0.05     | 1    | 0.00 | ı    | 1    | ł    | I    |         |
| 7 Kane                 | I    | 1    | I    | 1        | ł        | :    | 1    | ł    | ł    | 1    | ł    |         |
| & Millard              | 1.17 | 0.83 | 1.00 | 0.89     | 0.20     | 0.76 | 1.55 | 0.50 | 1    | 16.0 | 0.28 |         |
| 14 Piute               | 1    | 1    | 1    | ł        | ł        | ı    | 1    | t    | 1    | 1    | I.   |         |
| 20Sevier               | 0.67 | 1.07 | 0.94 | 1.19     | 1.25     | 1.48 | 1.54 | 0.95 | 1    | 1    | 1    |         |
| 2 Washington           | 0.89 | 0.43 | 0.68 | :        | 1        | 0.86 | 0.22 | 0.16 | 1    | 1    | ı    |         |
| 2.2Wayne               | 0.87 | 0.21 | 0.12 | ı        | 0.28     | 0.19 | 1    | I    | 1    | T    |      |         |
| <b>REGIONAL TOTALS</b> | 1.30 | 0.76 | 0.68 | 0.86     | 1.03     | 0.84 | 1.12 | 0.57 | 1    | 0.31 | 0.28 | 0.83    |
| Northeastern Region    |      |      |      |          |          |      |      |      |      |      |      |         |
| > ) Daggett            | I    | 1    | t    | ı        | ł        | ł    | ł    | I    | t    | ł    | 1    |         |
| えけ Duchesne            | 0.52 | 0.54 | 0.55 | 0.46     | 0.07     | 0.29 | 0.25 | 0.32 | 0.20 | 0.58 | 0.42 |         |
| 7 SUintah              | 0.83 | 0.95 | 1.25 | 1.12     | 0.29     | 0.33 | 0.40 | 0.30 | 0.14 | 0.35 | 0.21 |         |
| <b>REGIONAL TOTALS</b> | 0.63 | 0.66 | 1.06 | 0.69     | 0.14     | 0.30 | 0.31 | 0.32 | 0.17 | 0.46 | 0.37 | 0.47    |
| Southeastern Region    |      |      |      |          |          |      |      |      |      |      |      |         |
| 26 Carbon              | 0.93 | 0.18 | 0.27 | ł        | 0.02     | 0.15 | 1    | 1    | I    | 1    | 1    |         |
| Eatery                 | 0.52 | 0.45 | 0.18 | 0.45     | 0.63     | 0.56 | 0.59 | 0.86 | 1.00 | 0.43 | 0.22 |         |
| 28 Grand               | I    | t    | 1.10 | ı        | 1        | ł    | 1    | 1    | 1    | I    | 1    |         |
| Sen Juan               | 1    | 1    | 1    | :        | ı        | :    | 1    | 1    | ł    | 1    | 1    |         |
| <b>REGIONAL TOTALS</b> | 0.65 | 0.68 | 0.23 | 0.45     | 0.42     | 0.34 | 0.59 | 98.0 | 1.00 | 0.43 | 0.22 | 0.57    |
| CTATE TOTAL C          |      |      |      |          |          |      |      |      |      |      |      |         |

| Acçuentia         Factor         Fact | LADIE 0. LIFERE OF YOUNG | young per aunit nen rauos round untrig summer roausage pueasan counts, 1961-91 |      |      |       | manc brices |      | 12-10/1 |      |      |       |      |         |
|---|--------------------------|--|------|------|-------|-------------|------|---------|------|------|-------|------|---------|
| Conney         1841         1942         1943         1944         1945         1944         1945         1944         1945         1944         1945         1949         1940         1941         1944         1945         1944         1945         1944         1945         1944         1944         1945         1945         1945         1944         1945         1944         1945         1944         1945         1944         1945         1944         1945         1944         1945         <   | kegion and               |  |      |      |       |             | Year |         |      |      |       |      | Average |
| I Region         Alt         Al   | County                   | 1981   | 1982 | 1983 | 1984  | 1985        | 1986 | 1987    | 1988 | 1989 | 1990  | 1991 | 1981-90 |
| r         440         340         141         2.44         3.53         1.38         4.42         2.31         7.00         5.86         1.92           7 <t< td=""><td>Northern Region</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>   | Northern Region          |  |      |      |       |             |      |         |      |      |       |      |         |
| 418         314         -         314         157         133         157         133         157         133         157         133         157         133         157         133         157         133         157         133         157         133         153         133         153         133         153         133         156         133         240         533         240         534         240         536         240   | Box Elder                | 4.09   | 3.00 | 1.41 | 2.44  | 3.63        | 2.38 | 4.42    | 2.21 | 7.00 | 5.86  | 1.92 |         |
| 181         1.25         3.31         1.67         1.36         5.92         3.39         6.86         1.30         2.41         3.00   | Cache                    | 4.18   | 3.43 | 1    | 3.40  | 1.50        | I    | 7.17    | 2.33 | 2.60 | 5.50  | 1.57 |         |
|   | Davis                    | 1.81   | 1.25 | 3.31 | 1.67  | 1.26        | 5.92 | 3.30    | 6.86 | 1.30 | 2.41  | 3.00 | -       |
|   | Morgan                   | :  | 1    | 1    | I     | ł           | 1    | 1       | I    | 1    | 1     | 1    |         |
| 3         4         7         5   | Rich                     | ł  | I    | ł    | ł     | 1           | I    | ł       | 1    | ł    | ł     | ;    |         |
| M. TOTAIN         338         4.70         -         5.60         -         7.31         -         4.80         5.50         2.00         3.95         2.00         3.95         2.00         3.95         2.00         3.95         2.00         3.95         2.00         3.95         2.00         3.95         2.00         3.95         2.00         3.95         2.00         3.95         2.00         3.96         2.00         3.96         2.00         3.96         2.00         3.96         2.00         3.96         2.00         3.96         2.00         3.96         2.00         4.00         -         2.00         3.96         4.00         -         2.00         3.96         4.00         -         2.00         3.96         4.00         -         2.00         3.96         4.00         -         2.00         3.96         4.00         -         2.00         4.00         -         2.00         4.00         -         2.00         4.00         -         2.00         4.00         -         2.00         4.00         -         2.00         4.00         2.00         4.00         2.00         4.00         2.00         4.00         2.00         4.00         2.00         4.00   | Summit                   | T  | 1    | ı    | 1     | 1           | I    | I       | I    | 1    | 1     | ł    |         |
| ALTOTAL         3.30         1.98         3.23         2.60         3.92         4.18         3.44         2.90         3.86         2.02           Regim         2.04         2.73         5.8         3.13         5.10         3.88         5.48         3.30         4.17           Regim         2.04         2.73         5.8         5.10         3.88         5.10         3.88         5.10         3.88         5.10         3.86         4.40         5.10         3.34         4.17           6.71         5.48         5.38         5.10         3.88         3.10         4.18         3.30         4.31         6.10         3.94         4.10         4.21         4.11           7.00         4.89         3.53         5.51         2.33         5.51         2.36         5.30         5.33         5.51         5.34         4.30         3.34         4.31           6.66         3.66         3.53         5.51         2.33         5.51         2.34         3.30         5.27           6.71         6.33         5.31         2.40         3.56         4.00         4.70         3.56         2.30         3.34           6.71         7.80  | Weber                    | 3.38   | 4.70 | :    | 5.50  | ſ           | 7.33 | ł       | 1    | 4.80 | 5.50  | 2.60 |         |
| Regint          2.10         3.15         6.30         4.33         5.10         3.35         4.00          3.00         4.37           c         2.04         2.31         5.48         5.33         5.10         3.36         4.00          3.00         4.37           c         6.71         5.48         5.85         5.38         6.10         3.98         3.20         3.34         4.17           2.43         2.17         -         -         -         1.50         4.00         2.00         -         2.00         -         2.00         -         2.00         -         2.00         -         2.00         -         2.00         -         2.00         -         2.00         -         2.00         -         -         0.03         3.34         4.17           3.00         3.53         1.6         1.8         3.89         3.80         3.81         2.00         -         -         -         -         -         -         2.00         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -  | REGIONAL TOTALS          | 3.39   | 3.00 | 1.98 | 3.23  | 2.60        | 3.92 | 4.18    | 3.44 | 2.90 | 3.86  | 2.02 | 3.25    |
| 4.29         3.75         6.50         4.20         4.33         4.00          2.00         0.23         4.00            6         7.11         5.85         5.85         5.13         5.10         3.86          3.80         4.21           6         7.11         5.8         5.85         5.13         5.10         3.86          3.80         4.01           3.80         4.01           3.80         4.01           3.80         4.01           3.80         4.01           3.80         4.01           4.15         4.13         5.0         4.31         6.41           1.86         3.53         2.59         5.11         2.60         4.01         2.00         1.90   | Central Region           |  |      |      |       |             |      |         |      |      |       |      |         |
| e         2.04         2.73         -         3.58         3.13         5.10         3.88         -         -         3.80         4.17           2.41         2.41         2.44         2.44         2.40         2.34         4.17           2.41         2.41         2.46         -         -         4.16         4.18         3.96         4.10         4.10         4.16         4.13           3.40         3.53         2.51         1.66         -         -         4.16         4.18         3.96         4.31         6.41           -<  | Juab                     | 4.29   | 3.75 | 6.50 | 4.20  | 4.33        | 4.00 | 1       | 2.00 | 0,23 | 4.00  | 1    |         |
|   | Salt Lake                | 2.04   | 2.73 | 1    | 3.58  | 3.13        | 5.10 | 3.88    | :    | 1    | 3.80  | 4.22 |         |
| 2.43         2.17          1.50         4.10         2.00          2.00          1.50         4.16          1.50         4.31         6.41           3.30         3.53         2.51         1.66          4.16         4.19         3.96         4.31         6.41           ALL TOTALS   | Sanpete                  | 6.71   | 5.48 | 5.85 | 5.38  | 6.10        | 3.98 | 3.25    | 4.48 | 3.20 | 3.34  | 4.17 |         |
| 3.80         3.53         2.51         1.66          4.16         4.18         3.94         3.80         4.31         6.41           MLTOTALS         -   | Tooele                   | 2.43   | 2.17 | :    | ı     | :           | 1.50 | 4.00    | 2.00 | I    | 2.00  | 1    |         |
| NLT TOTALS         -  | Utah                     | 3.80   | 3.53 | 2.51 | 1.66  | •           | 4.16 | 4.18    | 3.94 | 3.80 | 4.31  | 6.41 |         |
| N.N. TOTALS         4.06         3.95         3.69         2.59         5.61         4.18         3.89         4.00         4.70         3.92         5.27           n Region         -         <   | Wasatch                  | 1  | 1    | I    | I     | 1           | t    | 1       | ı    | 1    | 1     | 1    |         |
| n Region<br>7.00 4.89 3.75 2.33 5.11 2.60 6.00 1.80   | REGIONAL TOTALS          | 4.08   | 3.95 | 3.69 | 2.59  | 5.61        | 4.18 | 3.89    | 4.00 | 4.70 | 3.92  | 5.27 | 4.06    |
| 7.00         4.89         3.75         2.33         5.11         2.60         6.00         1.80         - <td>Southern Region</td> <td></td>  | Southern Region          |  |      |      |       |             |      |         |      |      |       |      |         |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$   | Beaver                   | 7.00   | 4.89 | 3.75 | 1.33  | 5.11        | 2.60 | 6.00    | 1.80 | 1    | 1     | I    |         |
| 8.56       3.00       5.33       -       3.00       5.33       -  | Garfield                 | ı  | ł    | 1    | ;     | ł           | ;    | ,       | I    | I    | 1     | I    |         |
| -     -     -     -     -     -     -     -     -       1     1     1     1     1     1     1     1     1     1       2     -     -     -     -     -     -     -     -     1       2     -     -     -     -     -     -     -     -     1       4     18     3.94     3.46     4.58     5.22     5.14     3.77     -     -     -       1     1.66     3.93     5.05     5.92     4.43     4.32     3.64     -     -       1     1.75     1.66     3.33     5.05     5.92     4.43     4.32     3.64     -     -       1     1.75     3.17     2.43     -     -     -     -     -       1     1.75     3.13     3.67     3.67     2.33     3.39     3.33       1     1.75     3.73     3.64     2.13     3.67     2.33     3.39       1     2.56     4.96     5.16     13.00     11.50     4.13     3.65     3.67     2.33     3.39       1     5.57     4.96     5.16     5.33     3.64     2.01 <td>Iron</td> <td>8.56</td> <td>3.00</td> <td>5.33</td> <td>:</td> <td>3.00</td> <td>1</td> <td>ı</td> <td>ł</td> <td>I</td> <td>1</td> <td>I</td> <td></td>   | Iron                     | 8.56   | 3.00 | 5.33 | :     | 3.00        | 1    | ı       | ł    | I    | 1     | I    |         |
| 4.65       4.48       6.37       6.24       4.33       4.04       3.99       3.64       -       15.00       4.86         -  | Kane                     | ı  | 1    | 1    | ;     | 1           | ı    | 1       | 1    | . 1  | I     | 1    |         |
|   | Millard                  | 4.65   | 4.48 | 6.37 | 6.24  | 4.33        | 4.04 | 3.99    | 3.64 | I    | 15.00 | 4.86 |         |
| 4.18         3.94         3.49         4.64         4.58         5.21         5.14         3.77         - <td>Pinte</td> <td>ı</td> <td>I</td> <td>1</td> <td>ı</td> <td>I</td> <td>1</td> <td>1</td> <td>ł</td> <td>ł</td> <td>:</td> <td>I</td> <td></td>   | Pinte                    | ı  | I    | 1    | ı     | I           | 1    | 1       | ł    | ł    | :     | I    |         |
| gton         2.69         3.46         2.23         -         -         2.78         1.11         3.50         -  | Sevier                   | 4.18   | 3.94 | 3.49 | 4.64  | 4.58        | 5.22 | 5.14    | 3.77 | ı    | ł     | 1    |         |
| 8.75         1.67         3.33         -         3.17         2.43         -         15.00         4.86         -         -         15.00         4.86         - <th< td=""><td>Washington</td><td>2.69</td><td>3.46</td><td>2.23</td><td>ı</td><td>ļ</td><td>2.78</td><td>11.1</td><td>3.50</td><td>I</td><td>1</td><td>I</td><td></td></th<>                        | Washington               | 2.69   | 3.46 | 2.23 | ı     | ļ           | 2.78 | 11.1    | 3.50 | I    | 1     | I    |         |
| 4.66 $3.93$ $3.69$ $5.05$ $5.92$ $4.43$ $4.32$ $3.61$ $ 15.00$ $4.96$ $2.94$ $6.10$ $5.03$ $3.81$ $3.00$ $3.73$ $3.40$ $2.36$ $1.68$ $2.60$ $3.81$ $5.50$ $4.96$ $5.16$ $13.00$ $11.50$ $4.13$ $3.65$ $3.67$ $2.33$ $3.33$ $3.73$ $5.54$ $5.11$ $6.38$ $5.83$ $3.52$ $2.64$ $2.01$ $2.32$ $3.73$ $7.91$ $5.67$ $3.13$ $ 0.50$ $3.00$ $                                     -$ <td< td=""><td>Wayne</td><td>8.75</td><td>1.67</td><td>3.33</td><td>1</td><td>3.17</td><td>2.43</td><td>1</td><td>1</td><td>ł</td><td>ı</td><td>I</td><td></td></td<>   | Wayne                    | 8.75   | 1.67 | 3.33 | 1     | 3.17        | 2.43 | 1       | 1    | ł    | ı     | I    |         |
| ion<br>$\begin{array}{cccccccccccccccccccccccccccccccccccc$   | REGIONAL TOTALS          | 4.66   | 3.93 | 3.69 | 5.05  | 5.92        | 4.43 | 4.32    | 3.61 | 1    | 15.00 | 4.86 | 5.62    |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$   | Northeastern Region      |  |      |      |       |             |      |         |      |      |       |      |         |
| $ \begin{array}{l cccccccccccccccccccccccccccccccccccc$   | Daggett                  | ı  | ı    | 1    | ł     | I           | ł    | ;       | ı    | ı    | :     | ı    |         |
| $ \begin{array}{l c c c c c c c c c c c c c c c c c c c$  | Duchesne                 | 2.94   | 6.10 | 5.03 | 3.81  | 3.00        | 3.73 | 3.40    | 2.36 | 1.68 | 2.60  | 3.81 |         |
| ALS 3.73 5.54 5.11 6.38 5.83 3.88 3.52 2.64 2.01 2.82 3.73<br>iou<br>7.91 5.67 3.13 - 0.50 3.00   | Uintab                   | 5.50   | 4.96 | 5.16 | 13.00 | 11.50       | 4.13 | 3.65    | 3.67 | 2.33 | 3.30  | 3.33 |         |
| 100       7.91       5.67       3.13       -       0.50       3.00       -  | REGIONAL TOTALS          | 3.73   | 5.54 | 5.11 | 6.38  | 5.83        | 3.88 | 3.52    | 2.64 | 2.01 | 2.82  | 3.73 | 4.15    |
| $\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$  | Southeastern Region      |  |      |      |       | 8           |      |         |      |      |       |      |         |
| 3.97         2.56         2.93         3.75         4.17         5.15         6.63         6.42         3.60         3.50         5.00           -         -         5.50         -   | Carhon                   | 1.91   | 5.67 | 3.13 | I     | 0:50        | 3.00 | ł       | :    | I    | :     | ŀ    |         |
| -         -         5.50         -  | Emery                    | 3.97   | 2.56 | 2.93 | 3.75  | 4.17        | 5.15 | 6.63    | 6.42 | 3.60 | 3.50  | 5.00 |         |
| -           | Grand                    | ı  | I    | 5.50 | 1     | ł           | 1    | 1       | I    | 1    | I     | 1    |         |
| ALS         4.98         4.93         3.21         3.75         3.80         4.04         6.63         6.42         3.60         3.50         5.00           4.12         3.88         3.85         3.92         5.04         4.20         4.08         3.68         3.70         3.81  | San Juan                 | 1  | '    | 1    | 1     | ;           | 1    | 1       | 1    | T    | ;     | 1    |         |
| 4.12 3.88 3.85 3.92 5.04 4.20 4.08 3.68 2.95 3.70 3.81  | <b>REGIONAL TOTALS</b>   | 4.98   | 4.93 | 3.21 | 3.75  | 3.80        | 4.04 | 6.63    | 6.42 | 3.60 | 3.50  | 5.00 | 4.49    |
|   | STATE TOTALS             | 4.12   | 3.88 | 3.85 | 3.92  | 5.04        | 4.20 | 4.08    | 3.68 | 2.95 | 3.70  | 3.81 | 3.94    |

Table 6. Trend of young per adult hen ratios found during summer roadside pheasant counts, 1981-91.

| C,                     |      |      |       |      |            | rear |      |      |              |      |          | Average |
|------------------------|------|------|-------|------|------------|------|------|------|--------------|------|----------|---------|
| County                 | 1981 | 1982 | 1983  | 1984 | 1985       | 1986 | 1987 | 1988 | 1989         | 1990 | 1001     | 1981-90 |
| Northern Region        |      |      |       |      |            |      |      |      |              |      |          | AC-10/1 |
| Box Elder              | 4.90 | 4.13 | 4.00  | 4.63 | 5.77       | 5.33 | 6.00 | 4.80 | 8.00         | 5.40 | 3.20     |         |
| Cache                  | 5.93 | 6.50 | 1     | 3.40 | 3.00       | ł    | 4.80 | 4.00 | 4.00         | 4.50 | 10.2     |         |
| Davis                  | 3.64 | 2.00 | 5.40  | 3.33 | 3.50       | 5.12 | 4.40 | 6.60 | 4.50         | 4.20 | 6.00     |         |
| Morgan                 | ł    | 1    | 1     | 1    | 1          | 1    | 1    | :    | 1            | ļ    |          |         |
| Rich                   | ł    | 1    | ;     | 1    | 1          | ;    | ;    | :    | :            | ſ    |          |         |
| Summit                 | :    | 1    | ;     | ;    | I          | 1    | 4    | ļ    |              | I    | I        |         |
| Weber                  | 3.70 | 5.66 | ł     | 6.00 | 6.33       | ļ    | 1    | 1 2  | - T          | :    | : ;      |         |
| REGIONAL TOTALS        | 4.48 | 4.98 | 4 58  | 4 72 | 5 11       | 5 41 | £ 10 | 2.20 | 964.3        |      | <u>,</u> |         |
| Central Region         |      |      | 0.011 |      | 1110       |      | AFIC | 04.0 | <b>1+</b> 'C | 00.0 | 4.03     | 5.01    |
| Juah                   | 3.80 | 3.75 | 6.50  | 6.00 | 4.33       | 4.67 | :    | 4.00 | 4.00         | 4.00 | 1        |         |
| Salt Lake              | 4.67 | 4,44 | 4.44  | 4.75 | 5.00       | 5.70 | 3.80 | 3.80 | I            | 2 00 | 4 75     |         |
| Sanpete                | 7.24 | 5.93 | 6:39  | 6.38 | 8.28       | 5.10 | 4.80 | 5.80 | 4.20         | 4.40 | 00 5     |         |
| Tooele                 | 3.67 | 3.50 | ł     | :    | I          | 3.00 | 4.00 | 4.00 | 1            | 3.00 |          |         |
| Utah                   | 5.38 | 4.99 | 4.02  | 2.95 | I          | 4.75 | 4.90 | 4.80 | 5.10         | 5.00 | 5.13     |         |
| Wasatch                | ł    | :    | 1     | ł    | 1          | 1    | I    | 1    | I            | ł    | 1        |         |
| <b>REGIONAL TOTALS</b> | 5.66 | 5.15 | 5.01  | 3.75 | 7.42       | 4.89 | 4.80 | 5.00 | 4.40         | 4.70 | 4.92     | 5.08    |
| Southern Region        |      |      |       |      |            |      |      |      |              |      |          |         |
| Beaver                 | 6.50 | 5.00 | 6.50  | 7.00 | 5.75       | 3.25 | 6.00 | 4.50 | ì            | ł    | . 1      |         |
| Garfield               | ı    | ł    | ł     | I    | 1          | ł    | 1    | 1    | ł            | ı    | 1        |         |
| Iron                   | 8.14 | 3,00 | 5.33  | I    | 1          | ł    | 1    | 1    | ł            | ı    | ı        |         |
| Kane                   | I    | 1    | ł     | I    | 1          | ı    | ı    | ł    | 1            | ł    | 1        |         |
| Millard                | 6.30 | 6.30 | 6.40  | 6.00 | 40.63      | 3.72 | 5.30 | 4.90 | ł            | 3.80 | 5.40     |         |
| Piute                  | ł    | ł    | ı     | 1    | 1          | ı    | 1    | ł    | I            | 1    | I        |         |
| Sevier                 | 5.00 | 4.56 | 5.14  | 5.10 | 5.17       | 5.69 | 5.80 | 5.60 | I            | 1    | :        |         |
| Washington             | 5.90 | 4.40 | 3.90  | 1    | <b>,</b> 1 | 4.14 | 5.00 | 7.00 | 1            | 1    | 1        |         |
| Wayne                  | 1.00 | 2.00 | 1     | ;    | 3.33       | 2.25 | 1    | 1    | 1            | 1    | ł        |         |
| <b>REGIONAL TOTALS</b> | 6.14 | 4.98 | 5.18  | 5.42 | 1.35       | 4.70 | 5.60 | 5.30 | 1            | 3.80 | 5.40     | 5.39    |
| Northeastern Region    |      |      |       |      |            |      |      |      |              |      |          |         |
| Daggett                | :    | 1    | 1     | I    | 1          | :    | ł    | 1    | ł            | ł    | 1        |         |
| Duchesne               | 4.58 | 7.31 | 4.50  | 5.87 | 4.00       | 5.75 | 3.90 | 5.30 | 2.70         | 5.30 | 4.50     |         |
| Uintah                 | 5.50 | 4.25 | 5.11  | 5.50 | 6.33       | 5.71 | 4.40 | 5.30 | 4.20         | 4.90 | 3.33     |         |
| REGIONAL TOTALS        | 4.89 | 5.84 | 4.87  | 5.72 | 4.78       | 5.74 | 4.10 | 5.30 | 3.50         | 5.10 | 4.18     | 4.98    |
| Southeastern Region    |      |      |       |      | -          |      |      |      |              |      |          |         |
| Carbon                 | 7.67 | 6.00 | 3.00  | 1    | 1.00       | 1    | ľ    | 1    | ı            | 1    | ł        |         |
| Emery                  | 6.00 | 4.42 | 6.60  | 5.00 | 5.20       | 6.89 | 5.00 | 7.10 | 5.70         | 5.60 | 4.50     |         |
| Grand                  | 1    | 1    | 5.50  | ł    | ı          | I    | 1    | :    | 1            | ı    | i        |         |
| San Juan               | I    | 1    | ı     | 1    | 1          | 1    | I    | ł    | 1            | :    | ł        |         |
| REGIONAL TOTALS        | 6.24 | 4.64 | 5.30  | 5.00 | 4.82       | 5.46 | 5.00 | 7.10 | 5.70         | 5 60 | 4 50     | 6 40    |
|                        |      |      |       |      |            |      |      |      |              |      | 200      |         |

Table 9. Summary of pheasant hunter success and distribution of harvest and hunting pressure by region and county, 1991.

| EGION AND<br>COUNTY | SAMPLE<br>SIZE* | HUNTER-DAYS<br>AFIELD | BIRDS<br>BAGGED | BIRDS PER<br>HUNTER-DAY | V OF<br>PRESSURE | % OF<br>HARVEST |          |
|---------------------|-----------------|-----------------------|-----------------|-------------------------|------------------|-----------------|----------|
| ORTHERN REGION      |                 |                       |                 |                         |                  |                 |          |
| BOX ELDER           | 331             | 16,004                | 8,472           | 0.53                    | 10.66            | 11.67           |          |
| CACHE               | 248             | 13,778                | 7,028           | 0.51                    | 9.18             | 9.68            |          |
|                     | 191             | 9,463                 | 3,183           | 0.34                    | 6.31             | 4.38            |          |
| DAVIS               |                 | 347                   | 52              |                         | 0.23             | 0.07            |          |
| MORGAN              | 8               |                       |                 | 0.00                    | 0.02             | 0.00            |          |
| RICH                | 2               | 34                    | 0               |                         |                  | 0.02            |          |
| SUMMIT              | 4               | 347                   | 17              | 0.05                    | 0.23             |                 |          |
| WEBER               | 266             | 15,709                | 5,827           | 0.37                    | 10.47            | 8.03            |          |
| REGIONAL TOTALS     | 1,050           | 55,686                | 24,581          | 0.44                    | 37.10            | 33.85           | <u> </u> |
| CENTRAL REGION      |                 |                       |                 |                         |                  | ·               |          |
| JUAB                | 84              | 3,166                 | 1,791           | 0.57                    | 2.11             | 2.47            |          |
| SALT LAKE           | 123             |                       | 1,617           | 0.32                    | 3.41             | 2.23            |          |
| SALI LARE           | 166             | 7,306                 | 4,314           | 0.59                    | 4.87             | 5.94            |          |
|                     | 69              | 2,870                 | 1,252           | 0.44                    | 1.91             | 1.72            |          |
| TOOELE              | 659             | 36,028                | 19,918          | 0.55                    | 24.00            | 27.43           |          |
| UTAH                |                 |                       | 365             | 0.68                    | 0.36             | 0.50            |          |
| WASATCH             | 12              | 539                   |                 |                         |                  |                 |          |
| REGIONAL TOTALS     | 1,113           | 55,025                | 29,260          | 0.53                    | 36.66            | 40.30           |          |
| SOUTHERN REGION     |                 |                       |                 |                         |                  |                 |          |
| BEAVER              | 19              | 922                   | 504             | 0.55                    | 0.61             | 0.69            |          |
| GARFIELD            | 1               | 17                    | 0               | 0.00                    | 0.01             | 0.00            |          |
| IRON                | 25              | 1,374                 | 400             | 0.29                    | 0.92             | 0.55            |          |
|                     | 25              | ÷, 5, 4               | 0               | 0.00                    | 0.00             | 0.00            |          |
| KANE                | -               |                       | 5,532           | 0.59                    | 6.27             | 7.62            |          |
| MILLARD             | 185             | 9,411                 |                 |                         |                  | 0.02            |          |
| PIUTE               | 4               | 173                   | 17              | 0.10                    | 0.12             |                 |          |
| SEVIER              | 142             | 7,289                 | 2,626           | 0.36                    | 4.86             | 3.62            |          |
| WASHINGTON          | 29              | 1,513                 | 313             | 0.21                    | 1.01             | 0.43            |          |
| WAYNE               | 2               | 34                    | 17              | 0.50                    | 0.02             | 0.02            |          |
| REGIONAL TOTALS     | 407             | 20,736                | 9,411           | 0.45                    | 13.82            | 12.96           |          |
| NORTHEASTERN REG    | ION             |                       |                 |                         |                  |                 |          |
| DAGGETT             | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |          |
| DUCHESNE            | 130             | 6,332                 | 4,157           | 0.66                    | 4.22             | 5.73            |          |
| UINTAH              | 89              | 4,749                 | 2,226           | 0.47                    | 3.16             | 3.07            |          |
| REGIONAL TOTALS     | 219             | 11,081                | 6,384           | 0.58                    | 7.38             | 8.79            |          |
| SOUTHEASTERN REG    | ION             |                       |                 |                         |                  |                 |          |
| CARBON              | 38              | 2,800                 | 608             | 0.22                    | 1.87             | 0.84            |          |
| EMERY               | 71              | 4,209                 | 2,122           | 0.50                    | 2.80             | 2.92            |          |
| GRAND               | 3               | 365                   | 173             | 0.48                    | 0.24             | 0.24            |          |
| SAN JUAN            | 6               | 191                   | 69              | 0.36                    | 0.13             | 0.10            |          |
| REGIONAL TOTALS     | 118             | 7,567                 | 2,974           | 0.39                    | 5.04             | 4.10            |          |
| UNKNOWN             | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |          |
| STATE TOTALS        | 2,907           | 150,096               | 72,612          | 0.48                    | 100.00           | 100.00          |          |

\*Total hunter trips from questionnaire returns.

| Region and         |        |        |        | · .    | Year   | ·      |             | ••            |
|--------------------|--------|--------|--------|--------|--------|--------|-------------|---------------|
| County             | 1984   | 1985   | 1986   | 1987   | 1988   | 1989   | 1990        | 1991          |
| Northern Region    |        |        |        |        |        |        | <u>1990</u> | 1991          |
| Box Elder          | 0.81   | 0.66   | 0.52   | 0.62   | 0.49   | 0.40   | 0.58        | 0.53          |
| Cache              | 0.66   | 0.42   | 0.44   | 0.52   | 0.47   | 0.32   | 0.46        | 0.51          |
| Davis              | 0.56   | 0.46   | 0.36   | 0.43   | 0.32   | 0.28   | 0.26        | 0.34          |
| Morgan             | 0.44   | 0.05   | 0.18   | 0.70   | 1.71   | 0.40   | (0.67)      | (0.15)        |
| Rich               | (0.80) | (0.17) | 0.00   | (1.00) |        | (0.17) | 0.00        | 0.00          |
| Summit             | (0.80) | `0.00' | 0.00   | (0.67) | 0.00   | (0.67) | 0.00        | (0.05)        |
| Weber              | 0.69′  | 0.55   | 0.39   | 0.40   | 0.34   | 0.29   | 0.34        | 0.37          |
| REGIONAL TOTALS    | 0.68   | 0.53   | 0.42   | 0.49   | 0.40   | 0.32   | 0.42        | 0.44          |
| Central Region     |        |        |        |        |        |        | 0.42        | <u> </u>      |
| Juab               | 0.86   | 0.70   | 0.64   | 0.66   | 0.49   | 0.38   | 0.39        | 0.57          |
| Salt Lake          | 0.51   | 0.53   | 0.40   | 0.45   | 0.26   | 0.32   | 0.51        | 0.32          |
| Sanpete            | 1.08   | 0.98   | 0.72   | 0.73   | 0.80   | 0.65   | 0.51        | 0.59          |
| Tooele             | 0.58   | 0.60   | 0.44   | 0.56   | 0.31   | 0.29   | 0.36        | 0.44          |
| Utah               | 0.82   | 0.65   | 0.64   | 0.68   | 0.64   | 0.58   | 0.53        | 0.55          |
| Wasatch            | (0.29) | (0,55) | (0.17) | (0.32) | (0.60) | (1.33) | 0.00        | 0.68          |
| REGIONAL TOTALS    | 0.79   | 0.69   | 0.60   | 0.65   | 0,5    | 0.54   | 0.51        | 0.53          |
| Southern Region    |        |        |        |        |        |        | <u> </u>    |               |
| Beaver             | 0.66   | 0.52   | 0.56   | 0.37   | 0.41   | 0.39   | 0.68        | 0.55          |
| Garfield           | 0.52   | 0.17   | 0.58   | 0.14   | 2.75   | 0.71   | 0.00        | 0.00          |
| Iron               | 0.43   | 0.49   | 0.32   | 0.28   | 0.23   | 0.34   | 0.34        | 0.29          |
| Kane               | (0.50) | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00        | 0.00          |
| Millard            | 0.92   | 0.88   | 0.77   | 0.68   | 0.60   | 0.66   | 0.74        | 0.59          |
| Piute              | 0.66   | 0.56   | 0.83   | 0.67   | 0.42   | 1.12   | (0.50)      | (0.10)        |
| Sevier             | 0.87   | 0.71   | 0.68   | 0.65   | 0.57   | 0.45   | 0.42        | 0.36          |
| Washington         | 0.24   | 0.42   | 0.40   | 0.21   | 0.39   | 0.33   | 0.38        | 0.21          |
| Wayne              | 0.25   | 1.22   | 0.33   | 0.24   | 0.63   | (0.46) | 0.00        | (0.50)        |
| REGIONAL TOTALS    | 0.79   | 0.73   | 0.67   | 0.60   | 0.77   | 0.52   | 0.56        | 0.45          |
| Northeastern Regio |        |        |        |        |        |        | ·····       |               |
| Daggett            | (0.00) | (0.50) | 0.00   | (0.50) | (0.20) | 0.00   | 0.00        | 0.00          |
| Duchesne           | 0.99   | 0.88   | 0.84   | 0.87   | 0.90   | 0.62   | 0.78        | 0.66          |
| Uintah             | 0.86   | 0.62   | 0.79   | 0.80   | 0.64   | 0.42   | 0.57        | 0.47          |
| REGIONAL TOTALS    | 0.92   | 0.75   | 0.81   | 0.83   | 0.56   | 0.53   | 0.69        | 0.58          |
| Southeastern Regio |        |        |        |        |        |        |             |               |
| Carbon             | 0.44   | 0.42   | 0.39   | 0.47   | 0.51   | 0.39   | 0.30        | 0.22          |
| Emery              | 0.65   | 0.58   | 0.46   | 0.48   | 0.68   | 0.44   | 0.44        | 0.50          |
| Grand              | 0.38   | (2.00) | (0.50) | (0.86) | (0.20) | (0.33) | (0.33)      | (0.48)        |
| San Juan           | 2,50   | 0.40   | 0.58   | 1.64   | 1.50   | (2.00) | 0.00        | <u>(0.36)</u> |
| REGIONAL TOTALS    | 0.57   | 0.51   | 0.44   | 0.53   | 0.63   | 0.43   | 0.39        | 0.39          |
| Unknown Counties   | 0.47   | 1.00   | 0.40   | 0.63   | 0.54   | 0.60   | 0.00        | 0.00          |
| STATE TOTALS       | 0.74   | 0.63   | 0.55   | 0.60   | 0.53   | 0.46   | 0.49        | 0.48          |

Table 10. Summary of pheasants bagged per hunter-day by region and county, 1984-91.

( )Data may be biased because small sample size inflated county harvest beyond reasonable estimate for known pheasant populations.

Table 11. Percentage distribution of pheasant harvest by region and county, 1984-91.

|                        |              |                |             |        |              |                |              | ······         |
|------------------------|--------------|----------------|-------------|--------|--------------|----------------|--------------|----------------|
| egion and              |              |                |             |        | Year         |                | 1000         | 1991           |
| county                 | 1984         | 1985 _         | <u>1986</u> | 1987   | <u>1988</u>  | 1989           | 1990         | 1771           |
| lorthern Region        |              |                | -           |        |              |                |              | 11.67          |
| Box Elder              | 10.02        | 9.84           | 8.16        | 9.00   | 8.30         | 7.65           | 12.70        |                |
| Cache                  | 4.92         | 3.61           | 4.07        | 4.83   | 5.09         | 4.01           | 7.53         | 9.68           |
| Davis                  | 7.84         | 7.34           | 5.80        | 6.12   | 5.48         | 4.80           | 3.96         | 4.38           |
|                        | 0.08         | 0.01           | 0.05        | 0.14   | 0.20         | 0.15           | (0.21)       | (0.07)         |
| Morgan                 | (0.04)       | (0.01)         | 0.00        | (0.02) | (0.03)       | (0.03)         | 0.00         | 0.00           |
| Rich                   | (0.13)       | 0.00           | 0.00        | (0.04) | 0.00         | (0.05)         | 0.00         | 0.02           |
| Summit                 | 12.82        | 12.28          | 8.81        | 5.46   | 7.42         | 7.40           | <u>8.39</u>  | <u>(8.03</u> ) |
| Weber                  | 35.69        | 33.08          | 26.90       | 25.63  | 26.55        | 24.09          | 32.79        | 33.85          |
| REGIONAL TOTALS        | 33.09        | 33.00          |             |        |              |                |              |                |
| Central Region         | 1.80         | 2.13           | 2.95        | 3.47   | 1.94         | 1.69           | 2.09         | 2.47           |
| Juab                   | 4.64         | 5.28           | 4.90        | 4.48   | 2.18         | 2.67           | 4.30         | 2.23           |
| Salt Lake              | 4.84<br>9.11 | 10.25          | 10.32       | 9.53   | 10.63        | 10.76          | 7.92         | 5.94           |
| Sanpete                |              | 2.61           | 2.63        | 2.79   | 2.20         | 2.03           | 2.19         | 1.72           |
| Tooele                 | 2.29         | 17.24          | 22.25       | 23.70  | 25.83        | 27.35          | 23.44        | 27.43          |
| Utah                   | 18.69        |                | (0.02)      | (0.12) | (0.15)       | (0.51)_        | 0.00         | 0.50           |
| Wasatch                | (0.06)       | (0.09)         | 43.07       | 44.12  | 42.96        | 45.02          | 39.94        | 40.30          |
| REGIONAL TOTALS        | 36.52        | 37.52          | _43.07      | 44.12  | 42.90        | <u>. 40.02</u> |              | <u></u>        |
| <u>Southern Region</u> |              |                | 0.65        | 0.45   | 0.56         | 0.36           | 0.73         | 0.69           |
| Beaver                 | 0.58         | 0.51           | 0.65        |        | 0.18         | 0.13           | 0.00         | 0.00           |
| Garfield               | 0.12         | 0.04           | 0.13        | 0.02   |              | 0.62           | 0.50         | 0.55           |
| Iron                   | 0.35         | 0.72           | 0.47        | 0.32   | 0.25<br>0.00 | 0.02           | 0.00         | 0.00           |
| Kane                   | (0.04)       | 0.00           | 0.00        | 0.00   |              |                | 8.71         | 7,62           |
| Millard                | 6.93         | 7.85           | 8.30        | 6.29   | 6.03         | 7.99<br>0.74   | (0.08)       |                |
| Piute                  | 0.24         | 0.13           | 0.18        | 0.24   | 0.18         |                |              | 3.62           |
| Sevier                 | 6.06         | 6.58           | 7.42        | 7.07   | 6.34         | 5.75           | 3.94         | 0.43           |
| Washington             | 0.35         | 0.70           | 0.61        | 0.24   | 0.22         | 1.05           | 0.78         |                |
| Wayne                  | 0.01         | 0.16           | 0.04        | 0.16   | 0.08         | (0.15)         | 0.00         | (0.02          |
| REGIONAL TOTALS        | 14.74        | 1 <u>6.</u> 70 | 17.80       | 14.82  | 13.88        | 16.80          | <u>14.73</u> | 12.96          |
| Northeastern Region    |              |                | _           |        |              | • • •          | 0 00         | 0.00           |
| Daggett                | 0.00         | (0.03)         | 0.00        | (0.08) | (0.05)       | 0.00           | 0.00         | 5.73           |
| Duchesne               | 4.64         | 5.04           | 4.11        | 5.26   | 6.34         | 5.86           | 5.71         |                |
| Uintah                 | 4.87         | 3.72           | 4.16        | 4.74   | <u>3.91</u>  | 3.16           | 3.15         | 3.07           |
| REGIONAL TOTALS        | 9.74         | 8.76           | 8.27        | 10.09  | 10.30        | 9.01           | 8.86         | 8.79           |
| Southeastern Region    |              |                |             |        |              |                |              |                |
| Carbon                 | 1.01         | 1.26           | 1.37        | 1.37   | 1.48         | 1.90           | 0.76         | 0.84           |
| Emery                  | 2.13         | 2.44           | 2.32        | 3.00   | 3.93         | 2.88           | 2.76         | 2.92           |
| Grand                  | 0.05         | 0.06           | 0.11        | 0.37   | (0.01)       | (0.08)         | (0.16)       |                |
| San Juan               | 0,05         | 0.03           | 0.13        | 0.47   | 0.10         | (0.15)         | 0.00         | (0.10          |
| REGIONAL TOTALS        | 3.25         | 3.78           | 3.93        | 5.22   | 5,53         | 5.01           | 3.68         | 4.10           |
| Unknown Counties       | 0.30         | 0.16           | 0.04        | 0.10   | 0.75         | 0.08           | 0.00         | 0.00           |
| STATE TOTALS           | 100.00       | 100.00         | 100.00      | 100.00 | 100.00       | 100.00         | 100.00       | 100.00         |

( )Data may be biased because small sample size inflated county harvest beyond reasonable estimate for known pheasant populations.

|                        |        |        |              | · ·          |              |                |        |               |
|------------------------|--------|--------|--------------|--------------|--------------|----------------|--------|---------------|
| Region and             |        |        |              |              | Year         |                |        |               |
| County                 | 1984   | 1985   | 1986         | <u>1</u> 987 | 1988         | 1989           | 1990   | 1991          |
| Northern Region        |        |        |              |              |              |                |        |               |
| Box Elder              | 9.26   | 9.38   | 8.60         | 8.67         | 8.91         | 8.77           | 10.67  | 10.66         |
| っ<br>と<br>Cache        | 5.53   | 5.39   | 5.16         | 5.59         | 5.69         | 5.68           | 7.98   | 9.18          |
| ን Davis                | 10.33  | 10.00  | 8.92         | 8.43         | 8.95         | 7.85           | 7.32   | 6.31          |
| 4 Morgan               | 0.14   | 0.20   | 0.17         | 0.12         | 0.06         | 0.18           | (0.15) |               |
| 5 Rich                 | (0.04) | (0.05) | 0.00         | 0.01         | 0.09         | (0.07)         | (0.01) |               |
| 6 Summit               | (0.12) |        | (0.01)       |              | 0.09         | (0.04)         | (0.01) | (0.23         |
| lWeber                 | 13.93  | 14.05  | <u>12.36</u> | 8.19         | 11.42        | 11.59          | 12.13  | _10.47        |
| REGIONAL TOTALS        | 39.20  | 39.03  | 35.22        | 31.06        | 35.24        | _34.17         | 38.29  | 37.10         |
| Central Region         |        |        |              |              |              |                |        |               |
| 8 Juab                 | 1.55   | 1.91   | 2.54         | 3.15         | 2.11         | 2.02           | 2.61   | 2.11          |
| 9 Salt Lake            | 7.79   | 6.31   | 6.72         | 5.91         | 4.54         | 3.84           | 4.11   | 3.41          |
| (b Sanpete             | 6.28   | 6.55   | 7.86         | 7.76         | 7.04         | 7.55           | 6.81   | 4.87          |
| B Tooele               | 2.93   | 2.76   | 3.29         | 2.99         | 3.80         | 3.17           | 2.95   | 1.91          |
| 12 <b>Utah</b>         | 16.90  | 16.81  | 19.12        | 20.72        | 21.42        | 21.39          | 21.57  | 24.00         |
| <b>Wasatch</b>         | (0.17) | (0.10) | (0.06)       |              |              |                | 0.00   | 0.36          |
| REGIONAL TOTALS        | 34.46  | 34.34  | 39.59        |              | 39.06        | 38.15          |        | 36.66         |
| Southern Region        |        | + -    |              |              |              |                | 30.00  | 30.00         |
| <sup>(4</sup> Beaver   | 0.65   | 0.66   | 0.64         | 0.73         | 0.72         | 0.42           | 0.52   | 0.61          |
| Garfield               | 0.17   | 0.17   | 0.12         | 0.08         | 0.03         | 0.08           | (0.08) | 0.01          |
| d Iron                 | 0.61   | 0.91   | 0.80         | 0.70         | 0.58         | 0.83           | 0.71   |               |
| v Kane                 | (0.06) | (0.02) |              |              | 0.00         | (0.01)         | 0.00   | 0.92          |
| -%Millard              | 5.61   | 5.60   | 5.95         | 5.49         | 5.29         | 5.52           | 5.74   | 6.27          |
| 14 Piute               | 0.28   | 0.15   | 0.12         | 0.22         | 0.23         | 0.30           | (0.08) |               |
| 2º Sevier              | 5.17   | 5.83   | 6.00         | 6.48         | 5.91         | 5.79           | 4.58   | (0.12<br>4.86 |
| 2) Washington          | 1.10   | 1.04   | 0.84         | 0.71         | 0.29         | 1.47           | 1.02   | 1.01          |
| o'tWayne               | 0.31   | 0.08   | 0.06         | 0.41         | 0.07         | <u>(0.</u> 15) | (0.06) |               |
| REGIONAL TOTALS        | 13.89  | 14.39  | 14.56        | 14.85        | 13.16        | 14.58          | 12.80  |               |
| Northeastern Region    | 10.02  | 14.00  | 14.50        |              |              | 14.30          | 12.00  | 13.82         |
| z <sup>5</sup> Daggett | (0.06) | (0 04) | (0.02)       | (0.09)       | (0.13)       | (0.01)         |        | 0 00          |
| z4 Duchesne            | 3.48   | 3.58   | 2.69         | 3.61         | 3.74         | 4.27           |        | 0.00          |
| 7 <b>Uinta</b> h       | 4.24   | 3.77   | 2.09         | 3.56         | 3.22         | <u> </u>       | 3.55   | 4.22          |
| REGIONAL TOTALS        | 7,72   | 7.34   | 5.62         | 7.27         |              | 7.70           | 2.71   | 3.16          |
| Southeastern Region    | / ;./2 | /      | 5.02         | 1.21         | 7.10         |                | 6.28   | 7.38          |
| & Carbon               | 1.97   | 1.71   | 1.90         | 1.92         | 1 76         | 1 6 4          | 0.01   |               |
| Z Emery                | 2.51   | 2.43   | 2.66         | 2.79         | 1.76<br>3.71 | 1.54           | 2.21   | 1.87          |
| <i>l'</i> Grand        | 0.04   | 0.10   | 0.02         |              |              | 3.05           | 2.99   | 2.80          |
| 29 San Juan            |        |        |              | 0.12         | 0.25         | 0.04           | (0.11) | (0.24         |
| REGIONAL TOTALS        | 0.02   | 0.05   | 0.12         | 0.17         | 0.03         | (0.04)         | (0.01) | (0.13         |
| VEATONAP IOINPS        | 4.25   | 4.63   | 4.94         | 5.91         | 4.67         | 5.34           | 4.57   | 5.04          |
| Unknown Counties       | 0.32   | 0.47   | 0.25         | 0.05         | 0.09         | 0.74           | 0.06   | 0.00          |
| STATE TOTALS           | 100.00 | 100.00 | 100.00       | 100.00       | 100.00 :     | 100.00 1       | 100.00 | .00.00        |

Table 12. Percentage distribution of pheasant hunting pressure by county hunted, 1984-91.

( )Data may be biased because sample size inflated county harvest beyond reasonable estimate for known pheasant populations.

| Table 13. | Statewide summary of | pheasant harvest statistics, 1948-91. |
|-----------|----------------------|---------------------------------------|
|           |                      |                                       |

| Table 13. St | tatewide summa   |           | arvest statistics, 1 | 948-91.       |               |
|--------------|------------------|-----------|----------------------|---------------|---------------|
|              | Total            | Total     | Hunter-Days          | Pheasants Per | Pheasants Per |
| Year         | Hunters          | Harvest   | Afield               | Hunter-Day    | Hunter        |
| 1948         | 96,534           | 280,914   | -                    |               | 2.91          |
| 1949         | 88,369           | 263,340   | 189,453              | 1.39          | 2.98          |
| 1950         | 92,724           | 249,428   | 235,309              | 1.06          | 2.69          |
| 1951         | 76,576           | 246,575   | 171,233              | 1.44          | 3.22          |
| 1952         | 78,773           | 246,559   | 185,383              | 1.33          | 3.13          |
| 1953         | 82,595           | 245,307   | 176,480              | 1.39          | 2.97          |
| 1954         | 82,370           | 260,289   | 201,774              | 1.29          | 3.16          |
| 1955         | 78,793           | 196,195   | 178,359              | 1.10          | 2,49          |
| 1956         | 77,826           | 206,239   | 182,512              | 1.13          | 2.65          |
| 1957         | 83,025           | 228,319   | 170,387              | 1.34          | 2.75          |
| 1958         | 88,290           | 309,015   | 220,725              | 1.40          | 3.50          |
| 1959         | 86,268           | 243,276   | 202,730              | 1.21          | 2.82          |
| 1960         | 81,976           | 232,812   | 177,719              | 1.31          | 2.84          |
| 1961         | 83,493           | 238,439   | 243,305              | 0.98          | 2.86          |
| 1962         | 86,336           | 262,448   | 209,921              | 1.25          | 3.04          |
| 1962         | 87,647           | 297,873   | 198,582              | 1.50          | 3.40          |
| 1965         | 88,242           | 225,775   | 196,314              | 1.15          | 2.56          |
|              | 88,242<br>77,409 | 211,876   | 186,215              | 1.14          | 2.74          |
| 1965         |                  | 249,814   | 209,082              | 1.19          | 3.17          |
| 1966         | 78,721           | 284,000   | 257,033              | 1.19          | 3.32          |
| 1967         | 85,664           |           | 267,788              | 1.10          | 3.29          |
| 1968         | 90,453           | 297,752   | 207,7887             | 0.90          | 2.76          |
| 1969         | 90,573           | 250,241   |                      | 1.02          | 3.19          |
| 1970         | 78,585           | 250,503   | 244,958              | 0.88          | 2.95          |
| 1971         | 87,878           | 259,189   | 294,618              |               |               |
| 1972         | 84,311           | 240,573   | 327,669              | 0.73          | 2.85          |
| 1973         | 75,968           | 196,012   | 278,033              | 0.70          | 2.58          |
| 1974         | 85,252           | 167,408   | 282,294              | 0.59          | 1.96          |
| 1975         | 77,566           | 143,783   | 234,615              | 0.61          | 1.85          |
| 1976         | 74,029           | 151,476   | 214,023              | 0.71          | 2.05          |
| 1977         | 67,195           | 148,168   | 191,142              | 0.78          | 2.21          |
| 1978         | 83,800           | 220,398   | 257,305              | 0.86          | 2.63          |
| 1979         | 87,462           | 216,700   | 266,245              | 0.81          | 2.48          |
| 1980         | 84,868           | 228,442   | 249,770              | 0.91          | 2.69          |
| 1981         | 83,408           | 234,217   | 265,381              | 0.88          | 2.81          |
| 1982         | 85,368           | 208,437   | 280,624              | 0.74          | 2.44          |
| 1983         | 77,847           | 220,074   | 265,731              | 0.83          | 2.83          |
| 1984         | 76,840           | 192,190   | 258,169              | 0.74          | 2.50          |
| 1985         | 69,889           | 146,807   | 233,328              | 0.63          | 2.10          |
| 1986         | 59,987           | 114,389   | 207,346              | 0.55          | 1.91          |
| 1987         | 57,118           | 119,236   | 199,470              | 0.60          | 2.09          |
| 1988         | 54,514           | 97,658    | 184,180              | 0.53          | 1.79          |
| 1989         | 50,382           | 80,769    | 177,364              | 0.46          | 1.60          |
| 1990         | 47,025           | 78,944    | 161,634              | 0.49          | 1.68          |
| 1991         | 42,813           | 72,612    | 150,096              | 0.48          | 1.70          |
| Totals       |                  | -         |                      |               |               |
| (1948-91)    | 3,454,762        | 9,314,471 | 9,562,186            | _             | _             |
| Averages     |                  | ·         |                      |               |               |
| (1948-90)    | 79,348           | 214,927   | 224,097              | 0.97          | 2.66          |
|              |                  |           |                      |               |               |

| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |                    |              | HIN VIII | All Hunts |              |              |                |                   | Conniete | Hunte            |                  |        |
|--|--------------------|--------------|----------|-----------|--------------|--------------|----------------|-------------------|----------|------------------|------------------|--------|
|  | Region and         | Total        | Total    | Tatal     | Total        | Birdel       | Complete       | Tatel             | Total    |                  |                  |        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | County             | Parties      | Hunters  | Hours     | Birds        | 100 Hr       | Units          | 1 OCAL<br>Hunters | Hours    | l otal<br>Rirde  | Birds/<br>100 H- | Birds/ |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | Vorthern Region    |              |          |           |              |              |                |                   |          |                  |                  |        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | lox Elder          | 27           | 67       | 76        | 26           | 34           |                | -                 | -        | -                | 100              | 1 00   |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | Cache              | 33           | 2        | 105       | 30           | 29           | •              | •                 | 10       | . 7              | 4                | 1.51   |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | Javis              | 15           | 27       | 25        | 1            | 4            | 80             | 16                | 17       |                  | ۲ (              |        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | Aorgan             | 1            | 1        | ŀ         | I            | I            | I              | 1                 | 1        | • 1              | 1                |        |
| $ \begin{array}{ cccccccccccccccccccccccccccccccccccc$   | tich               | 1            | ł        | ;         | 1            | ł            | I              | I                 | 1        | ł                |                  | l      |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  | kuntait            | 1            | :        | 1         | 1            | I            | I              | 1                 |          | ].               | :                | ł      |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | Vaher              | ŗ            | ų        | 42        | Ę            | -            | •              | ; •               | . :      | 1 •              | 1                | 1      |
| Allow yee         233         210         67         24         16         27         34         8         24           1         5         174         27         16         5         19         117         20         17           1         5         174         27         16         6         19         117         20         17           1         2         2         367         105         13         57         107         38         20         13           130         257         807         105         13         57         107         38         50         14           147         357         807         105         13         57         107         38         50         14           15         1         5         57         107         38         50         14           15         1         57         107         38         50         14           16         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1  |                    |              |          |           | <b>≥</b>   ! | <del>1</del> | 4              | ~                 | =        | -                | 12               | 8      |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | FGIUNAL TUTALS     | 8            | 233      | 276       | 61           | 24           | 16             | 27                | 3        | 8                | 24               | 0.30   |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | entral Region      |              |          |           |              |              |                |                   |          |                  |                  |        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | nab                | 1            | ş        | 33        | Π            | 33           | 1              | :                 | 1        | J                | ł                | . 1    |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | alt Lake           | 1            | ;        | ı         | :            | 1            | I              | :                 | ı        | 1                | 1                |        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | anpete             | 17           | 20       | 174       | 11           | 16           | <b>.</b>       | 10                | 117      | 90               | -                | 1 05   |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | ooele              | ł            | ;        | 1         | 1            |              | >              |                   |          | i                | 1                | 50.1   |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | tah                | 130          | 250      | UU9       | 67           | 11           | 5              | 8                 | 1 10     | ļ                | 1 \$             | ı      |
| $ \begin{array}{ cccccccccccccccccccccccccccccccccccc$   | Jacatria           |              |          |           | 5            | 44           | 5              | 8                 | 107      | <b>N</b> C       | IJ               | 0.34   |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |                    | -   <u>-</u> | :        | 1         |              | '            | •              | ,                 | ,        | •                | 1                | ;      |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | ELENAL TUTALS      | 141          | 357      | 807       | 105          | 2            | 57             | 107               | 348      | 50               | 7                | 0.47   |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | NURELL KERNOR      |              |          |           |              |              |                |                   |          | 2                |                  |        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | eaver              | 1            | 1        | 1         | I            |              | 1              | 1                 | :        | ł                | 1                | I      |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | arfield            | 1            | ı        | 1         | ł            | ł            | ł              | I                 | I,       | ı                | 1                | I      |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 0 U                | 1            | Ì        | 1         | I            | 1            | 1              | 1                 | I        | 1                | 1                | 1      |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | ane                | 1            | I        | 1         | 1            | I            | ł              | r                 | I        | 1                | I                | 1      |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | illard             | 1            | 1        | I         | I            | 1            | ı              | 1                 | 1        | ł                | 1                | ł      |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$   | ute                | I            |          | ı         | 1            | 1            | 1              | :                 | 1        | I                | 1                | 1      |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | vier               | ı            | 1        | 1         | 1            | I            | 1              | I                 | 1        | ł                | ł                | I      |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | ashington          | ı            | 1        | I         | ı            | ł            | ı              | ı                 | 1        | ł                | 1                | ł      |
| ALS     -     -     -     -     -     -     -     -     -       ion     -     -     -     -     -     -     -     -     -     -       23     98     311     52     17     7     26     97     13     13       21     68     186     22     12     1     1     2     0     -       21     68     186     22     12     1     1     2     0     -       21     68     186     22     12     1     1     2     0     -       21     68     166     497     74     15     8     27     99     13     13       101     -     -     -     -     -     -     -     -     -       43     100     161     33     20     28     56     89     20     23       -     -     -     -     -     -     -     -     -     -       -     -     -     -     -     -     -     -     -     -     -       61     33     20     28     56     89     20 <td< td=""><td>ayne</td><td>1</td><td>I.</td><td>1</td><td>I</td><td>1</td><td>1</td><td>I</td><td>ł</td><td>ł</td><td>·</td><td></td></td<>  | ayne               | 1            | I.       | 1         | I            | 1            | 1              | I                 | ł        | ł                | ·                |        |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | EGIONAL TOTALS     | 1            |          | ,         |              | 1            | 1              |                   |          |                  |                  |        |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$   | ortheastern Region |              |          |           |              |              |                |                   |          |                  |                  |        |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$   | aggett             | ı            | 1        | I         | I            | I            | 1              | 1                 | 1        | 1                | 1                |        |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | ochesne            | 23           | 98       | 311       | 52           | 17           | F              | 36                | 10       | 11               | -                | 0 2 0  |
| ALS 44 166 497 74 15 8 27 99 13 13<br>iou 43 100 161 33 20 28 56 89 20 22<br>ALS 43 100 161 33 20 28 56 89 20 22<br>ALS 43 100 161 33 20 28 56 89 20 22<br>ALS 43 100 161 33 20 28 56 89 20 22<br>ALS 43 100 161 33 20 28 56 89 20 22<br>ALS 43 100 161 33 20 28 56 89 20 22<br>ALS 43 100 161 33 20 28 56 89 20 22<br>ALS 43 100 161 33 20 28 56 89 20 22<br>ALS 43 100 161 33 20 28 56 89 20 22<br>ALS 43 100 161 33 20 28 56 89 20 22<br>ALS 43 100 161 33 20 28 56 89 20 20 22<br>ALS 43 100 161 33 20 28 56 89 20 20 22<br>ALS 43 100 161 33 20 28 56 89 20 20 22<br>ALS 43 100 161 33 20 28 56 89 20 20 22<br>ALS 43 100 161 33 20 28 56 89 20 20 22<br>ALS 43 100 161 33 20 28 56 89 20 20 20<br>ALS 43 100 161 33 20 28 56 89 20 20 20<br>ALS 43 100 161 33 20 28 56 89 20 20<br>ALS 43 100 161 33 20 28 56 89 20 20<br>ALS 43 100 161 33 20 28 56 89 20 20<br>ALS 43 100 161 33 20 28 56 89 20 20<br>ALS 43 100 161 33 20 28 56 89 20 20<br>ALS 43 100 161 33 20 28 56 89 20 20<br>ALS 43 100 161 33 20 28 56 89 20 20<br>ALS 43 100 161 30 20<br>ALS 43 100 161 33 20 28 56 89 20 20<br>ALS 43 100 161 30 20<br>ALS 44 100 161 20<br>ALS 44 | intah              | 21           | 89       | 186       | 22           | 12           | . <del>.</del> | <b>; -</b>        | ; r      | 3 <              | 3                | 00.00  |
| 101<br>  | EGIONAL TOTALS     | 4            | 166      | 497       | 74           | 15           |                | 1                 | 8        | - 2              | 2                |        |
| 43       100       161       33       20       28       56       89       20       22         43       100       161       33       20       28       56       89       20       23         71       -       <   | outheastern Region |              |          |           |              |              | ,              |                   |          | 2                | 2                |        |
| 43     100     161     33     20     28     56     89     20     22       -     -     -     -     -     -     -     -     -     2       ALS     43     100     161     33     20     28     56     89     20     22  | arbon -            | 1            | ł        | ł         | ı            | ı            | ;              | :                 | :        | I                | I                | I      |
| ALS 43 100 161 33 20 28 56 89 20 22  | mery               | 4            | 100      | 161       | 33           | 20           | 28             | <b>36</b>         | 8        | 20               | 11               | YL U   |
| ALS 43 100 161 33 20 28 56 89 20 22  | rand               | 1            | ł        | 1         | ł            | ł            | I              | 1                 | ; 1      | ¦ 1              | 1                |        |
| ALS 43 100 161 33 20 28 56 89 20 22  | an Juan            | I            | ł        | ;         | ł            | · I          | 1              | 1                 | 1        |                  |                  |        |
|  | EGIONAL TOTALS     | 4            | 8        | 191       | E            | 90           | 2              | 1                 | 1 8      | ı   <del>;</del> | 1 2              |        |
|  | FATE TOTAL C       | 111          | 061      |           |              |              |                | 8                 | 6        |                  | 77               | 65.0   |

Table 14. Pheasant field bag check summary, 1991.

Tahle 15. Pheasant hunder success froud as determined by field check, 1986-91.

|   | 14%                 | IVXA   |         | 1987       | -      | 19KK       |          | 1989      |        | 1061      |         | 1661       |         |
|---|---------------------|--------|---------|------------|--------|------------|----------|-----------|--------|-----------|---------|------------|---------|
|   | Region and =        | Birds/ |         | Birds/     | Birds/ | llirds/    | Birds/   | Birds/    | Birds/ | Birds/    | Birds/  | Birds/     | Rirds/  |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$  | County              | 100 Hr | llunter | 100 Mr     | Hunter | 100 Hr     | Hunter   | 100 Nr    | Hunter | 100 I Î.r | llunter | 100 Hr     | llunter |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$   | Northern Region     |        |         |            |        |            |          |           |        |           |         |            |         |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$   | Box Elder           | v,     | 0.14    | Ξ          | 0.29   | L          | 0.21     | œ         | 0.22   | 8         | 0.27    | 9 <u>1</u> | 90. I   |
| 6         0.19         18         0.20         2         0.06         8         0.19           1         1         0.11         0.11         0.11         0.11         0.11         0.11         0.11           1         0.1  | Cache               | ;      | :       | К          | 1.25   | 1          | 0.08     | -         | 0.10   | -         | 0.23    | 4          | 0.57    |
|   | 1.1vis              | ÷      | 0.19    | 81         | 0.80   | æ          | 0.20     | 7         | 0.06   | æ         | 0.19    | ł          | 0.00    |
| M.I. TOTALS         7         0.11         0.21         9         0.13         11         0.21         9         0.13         13         0.27         33         0.23         3   | Mortan              | 1      | :       | 1          | ;      | ł          | <b>,</b> | 1         | :      | 1         | 1       | 1          | ł       |
|   | Rich                | ;      | ;       | :          | :      | 1          | ;        | 1         | ł      | ł         | ł       | ł          | 1       |
|   | Scend               | 1      | 1       | 1          | ;      | ;          | ;        | ı         | 1      | :         | 1       | ;          | ı       |
| MALTOTALS         7         0.16         11         0.23         29         0.26         33         0.27           Region         2         2         2         0.16         11         0.23         29         0.26           Region         2 <th2< th=""> <th2< td="" th<=""><td>Weher</td><td>12</td><td>0.21</td><td>ø</td><td>0.13</td><td>Ξ</td><td>0.21</td><td>•</td><td>0.12</td><td>;</td><td>1</td><td>27</td><td>1.00</td></th2<></th2<>   | Weher               | 12     | 0.21    | ø          | 0.13   | Ξ          | 0.21     | •         | 0.12   | ;         | 1       | 27         | 1.00    |
| Region         Region <thregion< th=""> <thregion< th=""> <thregion< td="" th<=""><td>RECTONAL TOTALS</td><td>-</td><td>0.16</td><td> =</td><td>0.23</td><td>78</td><td>0.20</td><td>œ</td><td>0.18</td><td>33</td><td>0.27</td><td>24</td><td>0.30</td></thregion<></thregion<></thregion<>  | RECTONAL TOTALS     | -      | 0.16    | =          | 0.23   | 78         | 0.20     | œ         | 0.18   | 33        | 0.27    | 24         | 0.30    |
| w $=$   | Central Region      |        |         |            |        |            |          |           |        |           |         |            |         |
| 6     1     0.38     1     0.36     1     0.38       1     1     1     1     1     1     1     1     0.38       1     1     1     1     1     1     1     1     1     0.38       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1 <td>Juah</td> <td>;</td> <td>1</td> <td>;</td> <td>ł</td> <td>;</td> <td>;</td> <td>1</td> <td>I</td> <td>:</td> <td>;</td> <td>1</td> <td>1</td>  | Juah                | ;      | 1       | ;          | ł      | ;          | ;        | 1         | I      | :         | ;       | 1          | 1       |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$   | Salt Cake           | 1      | ;       | 1          | ;      | ł          | 1        | 1         | 1      | 13        | 0.38    | <b>1</b>   | I       |
| 28         0.74         24         0.66         16         0.50         24         0.25         24         0.60         17         0.60           MALTOTALS         28         0.73         24         0.11         16         0.60         24         0.53         19         0.60           MALTOTALS         28         0.12         24         0.11         16         0.66         17         0.60           MALTOTALS         28         0.13         24         0.13         24         0.24         24         0.60           MALTOTALS         28         0.16         9         0.50         10         0.46         17         0.40           MALTOTALS         11         0.51         12         0.23         4         0.24         8         0.46           MALTOTALS         11         0.51         12         0.37         4         0.24         1         0.60         1         1         0.66         1         1         0.66         1         1         0.60         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1 <td>sianpete</td> <td>:</td> <td>:</td> <td>,<b>!</b></td> <td>;</td> <td>;</td> <td>1</td> <td>1</td> <td>I</td> <td>ł</td> <td>1</td> <td>11</td> <td>1.05</td>   | sianpete            | :      | :       | , <b>!</b> | ;      | ;          | 1        | 1         | I      | ł         | 1       | 11         | 1.05    |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$  | Torele              | 1      | ł       | 1          | 1      | :          | 1        | <b>90</b> | 0.26   | ;         | 1       | I          | 1       |
| WAI. TOTALS         28         0.11         26         0.11         16         0.06         19         0.46         17         0.40           N Region         1         1         1         1         1         1         0.46         17         0.40           N Region         1         1         1         1         1         1         0.46         1         0.40         0.40         0.40         0.40         0.   | litah               | - 38   | 0.74    | 24         | 0.68   | 91         | 0.50     | 34        | 0.53   | 61        | 0.40    | 13         | 0.34    |
| NAT TOTALS         28         0.11         24         0.11         16         0.06         17         0.40         17         0.40           n Region         -   | Wasatch             | 1      | 1       | 1          | 1      | ;          | ;        | 1         | 1      | :         | 1       | -          | 1       |
| n Region<br>n Region<br>n Region<br>n Region<br>n n n n n n n n n n n n n n n n n n   | REGIONAL TOTALS     | 28     | 0.12    | 24         | 0.11   | 16         | 0.08     | 6         | 0.46   | 17        | 0.40    | Ξ          | 0.47    |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$   | Southern Region     |        |         |            |        |            |          |           |        |           |         |            |         |
| 1     2     2     0.33     4     0.34     5       1     0.48     9     0.50     10     0.33     4     0.34     8       1     0.46     5     0.56     2     2     2     2       1     0.55     6     1.67     56     0.33     4     0.34     8       1     0.56     5     0.56     2     2     2     2       1     0.51     13     0.50     17     0.33     8     0.71       1     0.51     12     0.40     12     0.31     4     0.24     8       0.11     0.51     12     0.40     12     0.37     4     0.43       1     0.50     20     11     14     0.68     14     0.65       1     0.50     20     14     14     0.68     14     0.65       1     0.33     6     0.31     26     0.51     26     26       1     0.35     14     0.46     14     14     0.65       1     0.33     6     0.31     26     26     26       1     1     1.3     0.50     26     26     26 <t< td=""><td>Веачег</td><td>:</td><td>ł</td><td>÷</td><td>0.18</td><td>ı</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></t<>   | Веачег              | :      | ł       | ÷          | 0.18   | ı          | 1        | 1         | 1      | 1         | 1       | 1          | 1       |
| 10     0.48     9     0.50     10     0.33     4     0.24     8     0.46       11     0.48     9     0.50     17     0.33     4     0.24     8     0.46       14     0.65     6     1.67     56     0.56     2     2     2     2       14     0.65     6     1.67     56     0.37     4     0.24     8     0.46       15     13     0.50     17     0.37     4     0.24     8     0.65       MAL TOTALS     11     0.51     12     0.37     4     0.24     8     0.65       17     0.50     13     0.50     20     1.41     1.4     0.66     14     0.65       17     0.31     0     0.90     25     1.41     1.4     0.66     14       0.41     0.79     13     0.50     20     1.4     0.66     14     0.65       MAL TOTALS     24     18     0.71     15     0.30     14     0.66     14       17     0.50     20     13     0.50     14     0.66     14     0.65       MAL TOTALS     24     14     0.73     26     0.41 <t< td=""><td>Garfield</td><td>t</td><td>1</td><td>1</td><td>ı</td><td>:</td><td>ł</td><td>I</td><td>1</td><td>1</td><td>1</td><td>ı</td><td>:</td></t<>  | Garfield            | t      | 1       | 1          | ı      | :          | ł        | I         | 1      | 1         | 1       | ı          | :       |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$   | Iron                | :      | :       | :          | 1      | :          | ı        | ı         | I      | 1         | :       | 1          | 1       |
| 10         0.48         9         0.50         10         0.33         4         0.24         8         0.48           11         0.65         6         1.67         56         0.56         -   | Kane                | ł      | ł       | 1          | :      | :          | :        | 1         | 1      | :         | ı       | :          | I       |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$   | Millard             | 2      | 0.48    | •          | 0.50   | 01         | 673      | ◄.        | 0.24   | 80        | 0.48    | i          | 1       |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$   | Nute                | 1      | ł       | ;          | :      | :          | I        | 1         | ı      | :         | 1       | I          | 1       |
| (i)         6         0.07         33         0.50         17         0.21         38         0.71         -  | Sevier              | 14     | 0.65    | ÷          | 1.67   | <b>3</b> 6 | 0.56     | ł         | ι      | I         | ł       | I          | ı       |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$  | Washington          | ÷      | 0.07    | ſſ         | 0.50   | 11         | 0.22     | 38        | 0.71   | I         | 1       | 1          | I       |
| NAL T(TALS 11 0.51 12 0.40 12 0.37 4 0.24 8 0.05<br>stern Region<br>17 0.50 13 0.50 21 1.96 16 0.85 16 0.84<br>NAL TOTALS 24 0.79 13 0.50 20 1.41 14 0.68 14 0.65<br>NAL TOTALS 24 0.79 13 0.50 20 1.41 14 0.68 14 0.65<br>stern Region<br>1 0.33 6 0.33 0.11 25 0.50 1 1 0.65<br>1 0.33 6 0.33 0.41 25 0.50 1 1 0.65<br>NAL TOTALS 13 0.35 5 0.31 26 0.63 9 0.19<br>NAL TOTALS 13 0.35 5 0.32 11 0.35 10 0.30 11 0.36<br>TOTALS 12 0.39 13 0.32 11 0.35 10 0.30 12 0.36<br>NAL TOTALS 12 0.39 13 0.32 11 0.35 10 0.30 12 0.36<br>NAL TOTALS 12 0.39 13 0.32 11 0.35 10 0.30 12 0.36<br>NAL TOTALS 12 0.39 13 0.32 11 0.35 10 0.30 12 0.36<br>NAL TOTALS 12 0.39 13 0.32 11 0.35 10 0.30 13 0.36<br>NAL TOTALS 13 0.39 13 0.32 11 0.35 10 0.30 13 0.36<br>NAL TOTALS 13 0.39 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.39 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.39 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 12 0.39 13 0.32 11 0.35 10 0.30 13 0.36<br>NAL TOTALS 13 0.39 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.39 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.30 13 0.30 13 0.30 13 0.36<br>NAL TOTALS 13 0.30 13 0.3 | Wayne               | 1      | :       | :          | :      | ;          | 1        | 1         | ı      | •         | :       | 1          | 1       |
| Istera Region<br>17 0.50 13 0.50 27 1.96 16 0.85 16 0.84<br>17 0.50 - 8 0.53 4 0.15 10 0.43<br>NAL TOTALS 24 0.79 13 0.50 20 1.41 14 0.68 14 0.65<br>Natera Region<br>14 0.35 6 0.31 0.43 26 0.63 9 0.19<br>NAL TOTALS 13 0.30 25 0.71 25 0.50<br>14 0.35 5 0.31 26 0.63 9 0.19<br>NAL TOTALS 12 0.49 13 0.32 11 0.35 10 0.30 12 0.36   | RECIONAL TOTALS     | 11     | 0.51    | 12         | 0.40   | 12         | 0.37     | 4         | 0.24   | œ         | 0.05    | 1          | L       |
| Inc.         38         I.S0         13         0.50         27         1.96         16         0.85         16         0.84           IT         0.50         -         -         8         0.53         4         0.15         10         0.43           NAL TOTALS         24         0.79         13         0.50         20         1.41         14         0.68         14         0.63         14         0.63         14         0.63         14         0.63         14         0.63         14         0.63         14         0.65         0.43         16         0.65         16         0.63         14         0.65         0.43         16         0.65         16         0.65         16         0.65         16         0.65         16         0.65         16         0.65         16         0.65         16         0.65         16         0.65         16         0.65         16         0.65         16         0.65         16         0.65         16         0.65         16         0.65         16         0.65         16         16         0.65         16         16         16         16         16         16         16         16  | Northeastern Region |        |         |            |        |            |          |           |        |           |         |            |         |
| ne         38         1.50         13         0.50         27         1.96         16         0.85         16         0.84           17         0.50         -         -         8         0.53         4         0.15         10         0.43           MAL TOTALS         24         0.79         13         0.50         20         1.41         14         0.68         14         0.65           stern Region         7         0.33         0         0.00         25         0.71         25         0.63         9         0.65           14         0.35         6         0.33         0.43         26         0.63         9         0.19           14         0.35         6         0.33         0.43         26         0.63         9         0.19           1         1         0.35         5         0.31         26         0.63         9         0.19           1         1         0.35         1         0.32         11         0.35         9         0.19   | Daggedt             | ł      | :       | :          | ;      | 1          | 1        | ł         | 1      | ł         | 1       | 1          | I J     |
| I7         0.50         -         8         0.53         4         0.15         10         0.43           NAL TOTALS         24         0.79         13         0.50         20         1.41         14         0.68         14         0.65           steen Region         7         0.33         0         0.60         25         0.71         25         0.50         -         -         -           14         0.35         6         0.33         0.43         26         0.63         9         0.19           14         0.35         6         0.33         0.43         26         0.63         9         0.19           14         0.35         6         0.33         0.43         26         0.63         9         0.19           1         - <td>Duchesne</td> <td>38</td> <td>05° I</td> <td>13</td> <td>0.50</td> <td>27</td> <td>1.96</td> <td>16</td> <td>0.RS</td> <td>16</td> <td>0.84</td> <td>5</td> <td>0.50</td>  | Duchesne            | 38     | 05° I   | 13         | 0.50   | 27         | 1.96     | 16        | 0.RS   | 16        | 0.84    | 5          | 0.50    |
| NALTOTALS 24 0.79 13 0.50 20 1.41 14 0.68 14 0.65<br>stern Region 1 7 0.33 0 0.00 25 0.71 25 0.50 14 0.35 6 0.33 0.43 26 0.63 9 0.19 14 0.35 5 0.31 26 0.53 9 0.19 10 10 10 12 0.39 13 0.32 11 0.35 10 0.30 12 0.36   | Lintah              | 17     | 0.50    | ;          | 1      | œ          | 0.53     | -         | 0.15   | 2         | 0.43    | •          | ,       |
| stieru Regiun<br>1 0.33 0 0.00 25 0.71 25 0.50<br>14 0.35 6 0.33 0.43 26 0.63 9 0.19<br>14 0.35 5 0.33 25 0.71 26 0.53 9 0.19<br>NAL TOTALS 13 0.35 5 0.32 11 0.35 10 0.30 12 0.36  | REGIONAL TOTALS     | 54     | 0.79    | 13         | 0.50   | 20         | 1.41     | Ξ         | 0.68   | 2         | 0.65    | 2          | 0.48    |
| 1         0.33         0         0.06         25         0.71         25         0.50         -         -           14         0.35         6         0.33         0.43         26         0.63         9         0.19           11         0.35         6         0.33         0.43         26         0.63         9         0.19           11         0.35         5         0.32         25         0.71         26         0.53         9         0.19           11         0.35         10         0.30         11         0.36         10         0.36   | Southeastern Region |        |         |            |        |            |          |           | ·      |           |         |            |         |
| IA 0.35 6 0.33 0.43 26 0.63 9 0.19  | Carbon              | -      | 0.33    | •          | 0.0    | 52         | 0.71     | 52        | 0.50   | 1         | I       | 1          | 1       |
| an<br>NALTOTALS 13 0.35 5 0.32 25 0.31 26 0.53 9 0.19<br>TOTALS 12 0.39 13 0.32 11 0.35 10 0.30 12 0.36   | Emery               | 1      | 0.35    | ÷          | 0.33   |            | 0.43     | 26        | 0.63   | •         | 0.19    | 11         | 0.36    |
| ALS 13 0.35 5 0.32 25 0.71 26 0.53 9 0.19<br>12 0.39 13 0.32 11 0.35 10 0.30 12 0.36  | Grand               | 1      | 1       | 1          | ;      | 1          | :        | ł         | 1      | 1         | 1       | I,         | 1       |
| ALS 13 0.35 5 0.32 25 0.71 26 0.53 9 0.19<br>12 0.39 13 0.32 11 0.35 10 0.30 12 0.36  | San Juan            | ;      | :       | 1          | :      | :          |          | ;         | ı      | •         | ;       | 1          |         |
| 12 0.19 13 0.32 11 0.35 10 0.30 12 0.36   | REGIONAL TOTALS     | 13     | 0.35    | S          | 0.32   | 25         | 0.71     | 26        | 0.53   | •         | 0.19    | 2          | 0.36    |
|   | STATE TOTALS        | . 12   | 019     | 13         | 0.32   | =          | 0.35     | 10        | 00     | 13        | 0.36    | 2          | 0.42    |

# **MIGRATORY UPLAND GAME BIRDS**

### SUMMARY

## **Mourning Doves**

D O V E

&

PIGEONS

The breeding density index increased slightly in 1991, and remained well below average.

Harvest statistics derived from the questionnaire indicated a decrease in number of hunters and harvest compared to 1990. Hunter success for the season decreased slightly as well.

Field bag checks indicated a decrease in hunter success on opening day. Hunters who participated hunted more hours than the previous year.

Aging of wings indicated the juvenile per 100 adult ratio decreased to 116 compared to 127 in 1990. Juvenile per 100 adult ratio remains 2 percent below the long-term average.

## **Band-tailed Pigeons**

A band-tailed pigeon hunting permit was required again in 1991 to obtain mailing addresses for a questionnaire. Nineteen hunters purchased permits and 15 went afield. A total of 31 pigeons were harvested. Hunter interest remains low.

#### MOURNING DOVE

#### Call Count Survey

Results of the 1991 call count survey are found in Table 1 of this section. The long-term trend of the state's breeding density index (average doves heard per route) is shown in Table 2. Indices shown in each of these tables are unweighted and consequently differ from those published in the annual <u>Mourning Dove Status Report</u> compiled by the U.S. Fish and Wildlife Service. However, indicated trends are similar (Figure 1). The following is a comparison of the results of the 1991 survey to 1990 and the average for the period 1968-1990:

|  | <u>1991</u> | <u>Percent</u><br><u>1990</u> | <u>change from</u><br><u>Average</u> |
|--|-------------|-------------------------------|--------------------------------------|
| Average doves heard per route<br>Average calls heard per route | 10          | +9                            | -22                                  |
| Average doves seen per route                                   | 8           | -35                           |                                      |

In 1991, the U.S. Fish and Wildlife Service eliminated the collection of total calls heard per route.

Coo count data indicated slightly increased breeding activity in late May compared to 1990, but was 22 percent below the long-term average of doves heard per route.

#### <u>Harvest</u>

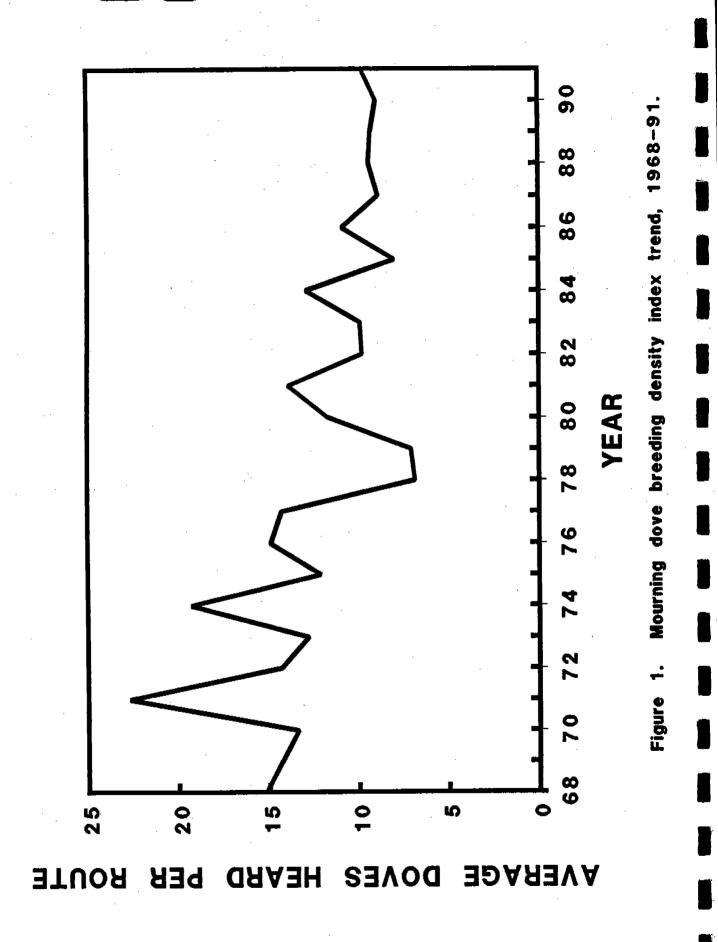
### Hunter Questionnaire

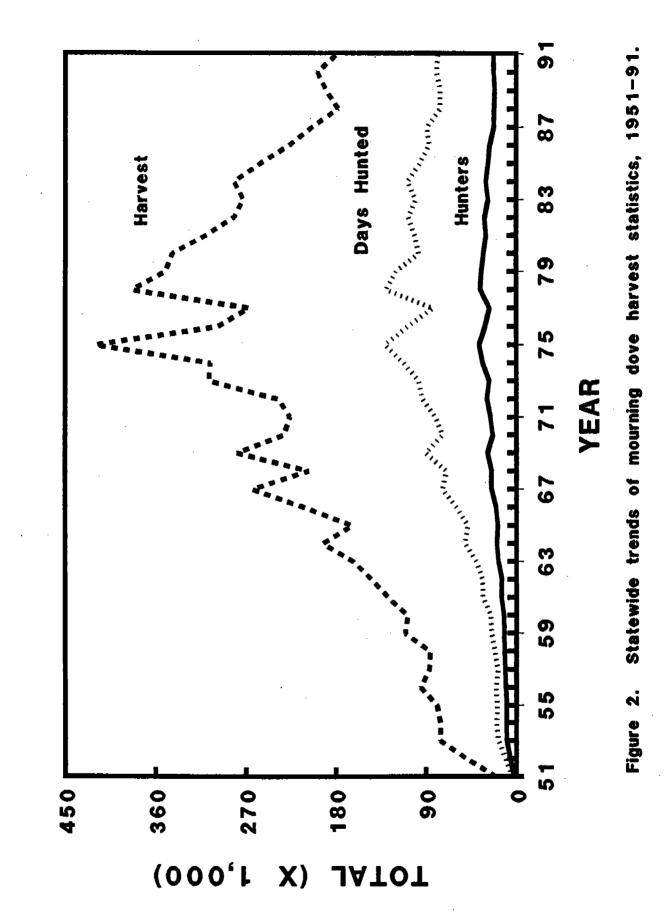
Information obtained from the hunter questionnaire for 1991 is summarized in Table 3. Long-term trends of mourning doves bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 4-6 and total statewide harvest statistics in Table 7 and Figures 2 and 3. The following is a comparison of the harvest statistics for 1991 compared to 1990 and the previous 40-year average:

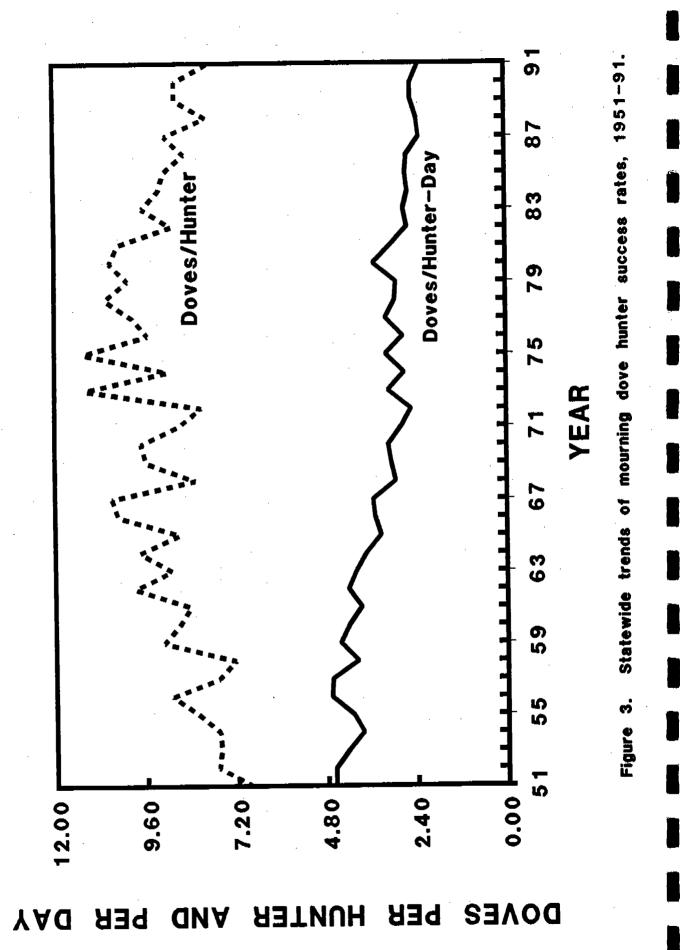
|                               | <u>1991</u> | <u>Percen</u><br>1990 | t change from<br><u>Average</u> |
|-------------------------------|-------------|-----------------------|---------------------------------|
| Mourning dove hunters         | 22,632      | 0                     | - +2                            |
| Mourning doves harvested      | 178,853     | -10                   | -14                             |
| Hunter-days afield            | 78,405      | -2                    | +14                             |
| Mourning doves per hunter-day | 2.28        | -8                    | -32                             |
| Mourning doves per hunter     | 7.90        | -10                   | -13                             |

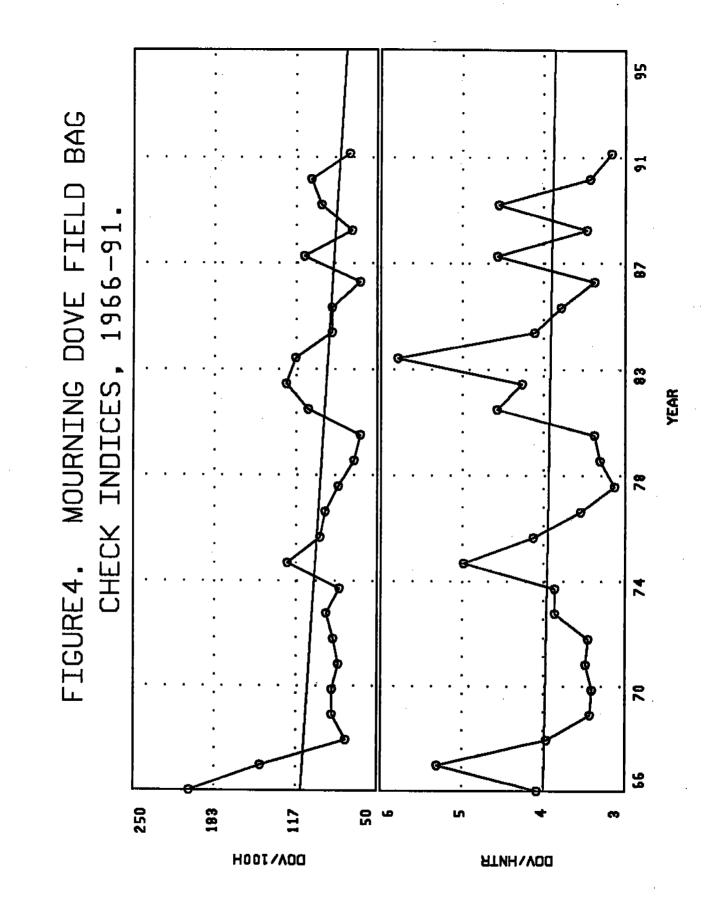
Dove hunter success was predicted to be similar to 1990 due to the second year of no significant change in the spring dove call count index and summer drought. Hunter success dropped slightly from 1990. Total harvest decreased 10 percent compared to 1990. Numbers of dove hunters, hunter-days afield and doves per hunter-day all decrease slightly. August temperatures and precipitation were above normal in 1991.

Long-term harvest trends are depicted in Figure 2.









#### Field Bag Checks

A summary of field bag check data for 1991 is shown in Table 8. Hunter success trends determined via this method are shown in Table 9. Results of the 1991 survey compared to 1990 and the 10-year average (1981-90) follow:

|   | <u>1991</u>    | <u>Percent</u><br>1990 | <u>change from</u><br><u>Average</u> |
|---|----------------|------------------------|--------------------------------------|
| Total hunters checked<br>Total hours hunted   | 1,027<br>3,800 | -23<br>-21             | -39<br>-40                           |
| Doves per hunter (complete hunts)<br>Doves bagged per 100 hours<br>(complete hunts) | 2.70<br>73     | -10<br>-30             | -31<br>-21                           |
| Average hours per hunter-day<br>(complete hunts)                                    | 3.70           | +28                    | -6                                   |
| Hours hunted per dove bagged<br>(complete hunts)                                    | 1.37           | +37                    | +31                                  |

This year's hunt opened on Monday, September 2, 1991. Hunter participation could have been off a bit because of the weekday opening. Field bag checks indicated a decrease in hunter success. The total number of hunters checked was down 23 percent from 1990. Dove hunters spent more time afield per hunter-day than in 1990, and slightly more time was spent per dove bagged, according to field bag check data.

#### Age Composition of the Harvest

A summary of the age composition of harvested mourning doves from 1981 through 1991 is contained in Table 10. Hatching dates for immature doves harvested in the Northern Region since 1982 are shown in Table 11. Hatching dates for immature doves harvested in Utah in 1991 are shown in Table 12. Following is a comparison of data collected in 1991 compared to 1990 and long-term averages (1966-90):

|   | <u>1991</u>                 | <u>Percent</u><br>1990 | <u>change from</u><br><u>Average</u> |
|---|-----------------------------|------------------------|--------------------------------------|
| Sample size<br>Immatures/100 adults<br>Percent of immatures hatched on: | 1,855<br>116<br>(N. Region) | -37<br>-10             | -42                                  |
| August 3 or later   | · · · · · ·                 |                        |                                      |
| July 25 or later<br>Before July 25                                      | ·                           |                        |                                      |

Sample size decreased 37%. The 116 immatures per 100 adults in the harvest was down 10 percent from the previous year and 2 percent below the 25-year average.

| <b>Region and</b>      | Route        | Total Doves                           | Total Doves  |
|------------------------|--------------|---------------------------------------|--------------|
| County                 | Number       | Heard / Route                         | Seen / Route |
| Northern Region        | · .          |                                       |              |
| Box Elder              | R1500        | · 1                                   | 16           |
| Summit                 | R1020        | 3                                     | 0            |
| REGIONAL TOTALS        | · · · · · ·  | 4                                     | 16           |
| Central Region         |              |                                       |              |
| Juab                   | R2830        | 38                                    | 10           |
| REGIONAL TOTALS        |              | 38                                    | 10           |
| Southern Region        | ·            |                                       |              |
| Beaver                 | R3820        | ROUTE NOT RUN                         |              |
| Garfield               | R1090        | 0                                     | 0            |
| Iron                   | <b>R4000</b> | 15                                    | 5            |
| Millard                | R3640        | 8                                     | 0            |
| Sevier-Sanpete         | <b>R0370</b> | 2                                     | 13           |
| Washington             | R4310        | 14                                    | 7            |
| Wayne-Sevier           | <b>R0660</b> | 0                                     | 0            |
| REGIONAL TOTALS        |              | 39                                    | 25           |
| Northeastern Region    |              |                                       |              |
| Duchesne               | <b>R0080</b> | 7                                     | 5            |
| Unitah                 | R0220        | 3                                     | 1            |
| <b>REGIONAL TOTALS</b> |              | 10                                    | 6            |
| Southeastern Region    | <u> </u>     | · · · · · · · · · · · · · · · · · · · |              |
| Emery                  | R0540        | 5                                     | 17           |
| San Juan               | R1171        | 38                                    | 31           |
| San Juan               | R1450        | 3                                     | 2            |
| REGIONAL TOTALS        |              | 46                                    | 50           |
|                        |              | <u></u>                               |              |
| STATE TOTALS           |              | 137                                   | 107          |
| STATE AVERAGES         |              | 10                                    | 8            |
|                        |              |                                       |              |
| PERCENT CHANGE         |              |                                       |              |
| (from previous year)   |              | +9                                    | -35          |

Table 1. Summary of the mourning dove call-count survey for 1991.

Table 2. Regional and county summary of mourning dove breeding population trend as indicated by the number

| Country                | Route  |       |      |           |          | Number    | of Dove | s Heard | Number of Doves Heard Per Route | <u>م</u> |       |      |      |      |            |            |
|------------------------|--------|-------|------|-----------|----------|-----------|---------|---------|---------------------------------|----------|-------|------|------|------|------------|------------|
| COUNTY                 | Number | 1977  | 8791 | 6261      | 1980     | 1981      | 1982    | 1983    | 1984                            | 1985     | 1986  | 1987 | 1988 | 1989 | 1990       | 1661       |
| Northern Region        |        |       |      |           | 1        |           |         | i       |                                 |          |       |      |      |      |            |            |
| Box Elder              | R1500  | 4     | 7    | •         | 4        | <b>90</b> | I       | l       | 0                               | 0        | T     | 4    | ¢    | •    | T          | -          |
| Summit                 | R1020  | 10    | ŝ    | Ŷ         | ŝ        | 4         | 5       | ł       | -                               | 4        | N     | 3    | ŝ    | •    | <b>6</b> 0 | . 🕶        |
| REGIONAL TOTALS        |        | 14    | L    | 15        | 6        | 12        | s       | -       | -                               | 4        | .0    | v.   | S    | 5    | 4          | 4          |
| <b>Central Region</b>  |        |       |      |           |          |           |         |         |                                 |          |       |      |      |      |            |            |
| Juah.                  | R2830  | 25    | 31   | 15        | ЭІ       | ដ         | 6       | 25      | 19                              | 20       | 19    | 16   | 53   | 13   | 36         | 8          |
| REGIONAL TOTALS        |        | 25    | 31   | 15        | ы        | n         | 6       | 25      | 19                              | 20       | 61    | 16   | ส    | 13   | 36         | <b>8</b> 8 |
| Southern Region        |        |       |      |           |          |           |         |         |                                 |          |       |      |      |      |            |            |
| Beaver                 | R3820  | Đ     | •    | ŝ         | 6        | 7         | 13      | ••      | 9                               | 9        | 4     | 17   | 13   | 14   | •          | I          |
| Garfield               | R1090  | 1     | •    | 0         | ð        | •         | 7       | Ċ       | 15                              | ÷        | T     |      | 0    | 16   | c          | Ċ          |
| Iron                   | R4000  | 27    | 12   | 14        | 40       | 36        | 21      | 19      | 31                              | 41       | 26    | ន    | 20   | 10   | 13         | 15         |
| Millard                | R.3640 | 29    | œ    | 4         | 7        | .01       | 6       | ŝ       | 14                              | 7        | 7     | ••   | N)   | 4    | Vo         | œ          |
| Sevier-Sanpete         | R0370  | 7     | •    | •         | 6        | 0         | •       | e       | s                               | 4        | 4     | •    | •    | ы    | 9          | 7          |
| Washington             | R4310  | 15    | 1    | 4         | e        | Ŷ         | •       | 14      | 1                               | 0        | 9     | ۲    | Ŧ    | 9    | 12         | 14         |
| Wayne-Sevier           | R0660  | 8     | . 1  | 2         | S        | 14        | 4       | :       | 17                              | •        | 7     | ¢    | ••   | ۲    | s          | •          |
| <b>REGIONAL TOTALS</b> |        | 82    | 22   | 29        | 62       | 82        | 49      | 47      | 68                              | 59       | 4S    | 54   | 45   | 59   | 6          | 6          |
| Northeastern Region    |        |       |      |           |          |           |         |         |                                 |          |       |      |      |      |            |            |
| Duchesne               | R0080  | 14    | 7    | 7         | <b>~</b> | 13        | ٢       | 0       | -                               | œ        | m     | 4    | 80   | 61   | 11         | 5          |
| Unitah                 | R0220  | 7     | 4    | I         | 49       | 19        | l       | ¢       | 10                              | <b>N</b> | 20    | 12   | 9    | •    | 7          | 3          |
| <b>REGIONAL TOTALS</b> |        | 21    | 9    | 7         | 50       | 32        | œ       | ٩       | H                               | 13       | 53    | 16   | 14   | 13   | 13         | ≘          |
| Southeastern Region    |        |       |      |           |          |           |         |         |                                 |          |       |      |      |      |            |            |
| Emery                  | R0540  | 4     | 10   | •         | ٢        | 22        | 7       | 11      | 10                              | ę        | 01    | 11   | 15   | 90   | 1          | Ś          |
| San Juan               | R1170  | 67    | 24   | <b>78</b> | 14       | <b>38</b> | 26      | Œ       | 57                              | 25       | 60    | IC . | 37   | 8    | н          | 38         |
| San Juan               | R1450  | 1     | 3    | 1         | 3        | 0         | 24      | \$      | ٢                               | 7        | 0     | l    | 7    | -    | . •        | m          |
| <b>REGIONAL TOTALS</b> |        | 11    | 37   | 38        | 24       | 60        | 57      | 46      | 74                              | Ŕ        | 70    | 43   | 54   | 52   | 33         | \$         |
| STATE TOTALS           |        | 214   | 103  | 66        | 176      | 208       | 128     | 128     | 194                             | 126      | 163   | 134  | 141  | 140  | 135        | 137        |
| STATE AVERAGES         |        | 14.27 | 6.87 | 6.60      | 11.73    | 13.87     | 8.53    | 8.53    | 12.93                           | 8.40     | 10.87 | 8.93 | 9.40 | 9.33 | 9.00       | 9.79       |
| PERCENT CHANGE         |        |       | 1    |           | .        |           |         |         |                                 |          |       |      |      |      |            |            |
| (Irom previous year)   |        | 7     | -52  | 4         | *        | 18        |         | -       | 23                              | -35      | 29    | -18  | 5    | 7    | 7          | -          |

| hunting                               | pressur          | e by region           | and count       | y, 1991.     |              |                 |   |
|---------------------------------------|------------------|-----------------------|-----------------|--------------|--------------|-----------------|---|
| REGION AND<br>COUNTY                  | SIZE*            | HUNTER-DAYS<br>AFIELD | BAGGED          |              | PRESSURE     | % OF<br>HARVEST |   |
| NORTHERN REGION<br>BOX ELDER<br>CACHE | 161              | 7,550                 | 17,170<br>9,915 |              | 9.63<br>6.43 | 9.60            |   |
| DAVIS                                 | 78<br>34         | 2,418                 | 4,279           | 1.77         | 3.08         | 2.39            |   |
| MORGAN                                | 15<br>11         | 504<br>504<br>156     | 1,165           | 2.31         | 0.64         | 0.65            |   |
| RICH                                  | 11               | 504                   | 1,739           | 3.45         | 0.64         | 0.97<br>0.16    |   |
| SUMMIT<br>WEBER                       | 51               | 156<br>3,287          | 4,279           | 1.30         | 4.19         | 2.39            |   |
| REGIONAL TOTALS                       | 353              | 19,466                | 38,828          | 1.99         | 24.83        | 21.71           |   |
| CENTRAL REGION                        |                  |                       |                 |              |              |                 |   |
| JUAB                                  | 134<br>84        | 4,714<br>4,418        | 15,709          | 3.33         | 6.01         | 8.78            |   |
| SALT LAKE                             | 84               | 4,418                 | 8,941           | 2.02         | 5.64<br>4.10 | 5.00            |   |
| SANPETE<br>TOOELE                     | 60<br>126<br>277 | 3,218<br>6,697        | 15,308          | 2.29         | 8.54         | 4.84<br>8.56    | • |
| UTAH                                  | 277              | 15,482                | 29.278          | 1.89         | 19./5        | 10.3/           |   |
| WASATCH                               | 17               | 800                   | 1,687           | 2.11         | 1.02         | 0.94            |   |
| REGIONAL TOTALS                       | 698              | 35,332                | 79,588          | 2.25         | 45.06        | 44.50           |   |
| SOUTHERN REGION                       |                  |                       |                 |              |              |                 |   |
| BEAVER                                | 19               | 1,043                 | 3,461           | 3.32<br>2.40 | 1.33         | 1.94            |   |
| GARFIELD<br>IRON                      | 5                | 260<br>1,965          | 626             | 2.40         | 0.33<br>2.51 | 0.35<br>3.07    |   |
| KANE                                  | 52               | 539                   | 3,49/<br>1 635  | 2.00         | 0.69         | 0.91            |   |
| MILLARD                               | 112              | 5,305                 | 1,635           | 3.03<br>3.13 | 6.77         | 9 29            |   |
| PIUTE                                 | 2                | 487                   | 1,217           | 2.50         | 0.62         | 0.68            |   |
| SEVIER                                | 58               | 4,105                 | 8,576           | 2.09         | 5.24         | 4.80            |   |
| WASHINGTON                            | 45               | 2,539                 | 9,220           | 2.09<br>3.63 | 3.24         | 5.16            |   |
| WAYNE                                 | 2                | 69                    | 52              | 0.75         | 0.09         | 0.03            |   |
| REGIONAL TOTALS                       | 288              | 16,317                | 46,900          |              | 20.81        | 26.22           |   |
| NORTHEASTERN REG                      | ;ion             |                       |                 |              |              |                 |   |
|                                       | 1                | 17                    | 17              | 1.00         | 0.02         | 0.01            |   |
| DUCHESNE<br>UINTAH                    | 29               | 2,104<br>2,035        | 4,662<br>2,157  | 2.21         | 2.68<br>2.60 | 2,61<br>1,21    |   |
| REGIONAL TOTALS                       |                  |                       | 6,836           | 1.64         | 5.30         | 3.82            |   |
|                                       |                  |                       |                 |              |              |                 |   |
| SOUTHEASTERN REG<br>CARBON            | FION 24          | 1,026                 | 2,209           | 2.15         | 1.31         | 1.24            |   |
| EMERY                                 | 24               | 1,235                 | 2,070           | 1.68         | 1.58         | 1.16            |   |
| GRAND                                 | 5                | 278                   | 313             | 1.13         | 0.36         | 0.18            |   |
| SAN JUAN                              | 9                | 591                   | 2,104           | 3.56         | 0.75         | 1.18            | * |
| REGIONAL TOTALS                       | 62               | 3,131                 | 6,697           | 2.14         | 3.99         | 3.74            |   |
| UNKNOWN                               | 0                | 0                     | 0               | 0.00         | 0.00         | 0.00            |   |
| STATE TOTALS                          | 1,463            | 78,405                | 178,853         | 2.28         | 100.00       | 100.00          |   |
| +                                     |                  |                       |                 |              |              |                 | - |

Table 3. Summary of mourning dove hunter success and distribution of harvest and hunting pressure by region and county, 1991.

\* Total hunter trips from questionnaire returns.

|                              |              | 1            |              |      | Vaar                |      | ····· |      |
|------------------------------|--------------|--------------|--------------|------|---------------------|------|-------|------|
| Region and                   | 1004         | 1005         | 1986         | 1987 | <u>Year</u><br>1988 | 1989 | 1990  | 1991 |
| County                       | 1984         | 1985         | 1990         | 1901 | 1900                | 1909 | 1990  | 7227 |
| Northern Region<br>Box Elder | 3.19         | 2.18         | 3.18         | 3.46 | 3.41                | 2.83 | 2.73  | 2.27 |
|                              | 2.05         | 2.34         | 1.92         | 1.79 | 1.92                | 2.83 | 1.67  | 1.97 |
| Cache                        | 2.05         | 2.34         | 1.24         | 1.18 | 1.51                | 1.31 | 1.53  | 1.77 |
| Davis                        | 1.88         | 1.55         | 2.04         | 3.00 | 2.36                | 1.03 | 1.73  | 2.31 |
| Morgan                       | 6.69         | 2.28         | 3.72         | 0.00 | 2.63                | 1.26 | 1.95  | 3.45 |
| Rich                         | 3.89         |              | 1.08         | 2.50 | 2.03                | 1.61 | 7.00  | 1.78 |
| Summit                       | 3.89<br>1.55 | 1.92         | 1.63         | 1.15 | 1.21                | 1.88 | 1.48  | 1.30 |
| Weber                        |              |              |              | 2.19 |                     | 2.20 | 2.02  | 1.99 |
| REGIONAL TOTALS              | 2.27         | 1.92         | 2.26         |      | 2.09                |      | _2.02 | 1.99 |
| <u>Central Region</u>        | 4.44         | 5.16         | 4.54         | 2.95 | 3.25                | 4.45 | 3.70  | 3.33 |
| Juab<br>Salt Lake            |              |              |              | 2.95 | 1.84                | 4.45 | 2.37  | 2.02 |
|                              | 1.95         | 1.91         | 1.95<br>3.51 | 1.88 | 2.75                | 2.10 | 2.37  | 2.69 |
| Sanpete                      | 2.98<br>2.90 | 2.71<br>2.55 | 2.87         | 2.17 | 2.75                | 2.88 | 1.90  | 2.29 |
| Tooele                       | 2.90         |              | 2.87         | 2.30 | 1.97                | 2.08 | 2.05  | 1.89 |
| Utah                         |              | 2.50         |              |      |                     |      |       |      |
| Wasatch                      | 2.20         | 1.50         | 1.97         | 0.82 | 1.20                | 1.22 | 2.42  | 2.11 |
| REGIONAL TOTALS              | 2.60         | 2.71         | 2.72         | 2.11 | 2.23                | 2.55 | 2.41  | 2.25 |
| Southern Region              | 5 4 F        | - 4-         | ~ ~~         |      |                     |      |       |      |
| Beaver                       | 3.45         | 3.43         | 2.02         | 1.72 | 3.50                | 4.35 | 1.71  | 3.32 |
| Garfield                     | 1.80         | 0.60         | 0.20         | 1.67 | 3.86                | 2.27 | 2.34  | 2.40 |
| Iron                         | 3.07         | 4.99         | 3.54         | 3.10 | 3.71                | 2.91 | 4.38  | 2.80 |
| Kane                         | 5.76         | 2.54         | 1.06         | 3.06 | 1.71                | 3.11 | 1.00  | 3.03 |
| Millard                      | 4.25         | 4.30         | 3.58         | 2.83 | 3.01                | 3.54 | 4.42  | 3.13 |
| Piute                        | 1.94         | 1.60         | 1.62         | 1.67 | 4.17                | 0.00 | 1.45  | 2.50 |
| Sevier                       | 2.11         | 2.33         | 1.82         | 2.15 | 2.03                | 2.70 | 2.18  | 2.09 |
| Washington                   | 2.62         | 3.17         | 3.90         | 2.68 | 3.37                | 2.12 | 2.81  | 3.63 |
| Wayne                        | 2.00         | 2.47         | 2.57         | 5.65 | 2.29                | 3.53 | 0.61  | 0.75 |
| REGIONAL TOTALS              | 3.22         | 3.53         | 2.85         | 2.62 | 2.90                | 3.01 | 3.20  | 2,87 |
| Northeastern Region          |              |              |              |      |                     |      |       |      |
| Daggett                      | 1.48         | 0.00         | 1.20         | 0.83 | 0.00                | 0.25 | 2.00  | 1.00 |
| Duchesne                     | 1.83         | 2.50         | 2.70         | 2.46 | 2.83                | 1.42 | 1.85  | 2.21 |
| Uintah                       | 2.61         | 2.39         | 1.91         | 2.82 | 2.68                | 2.33 | 3.17  | 1.06 |
| REGIONAL TOTALS              | 2.20         | 2.39         | 2.05         | 2.55 | 2.68                | 1.82 | 2.46  | 1.64 |
| Southeastern Region          |              |              |              |      |                     |      |       |      |
| Carbon                       | 2.13         | 2.76         | 2.76         | 1.94 | 2.06                | 0.75 | 1.18  | 2.15 |
| Emery                        | 2.24         | 3.28         | 1.62         | 2.41 | 2.87                | 1.77 | 2.04  | 1.68 |
| Grand                        | 2.46         | 2.00         | 4.28         | 2.41 | 2.00                | 2.18 | 4.04  | 1.13 |
| San Juan                     | 3.51         | 3.38         | 3.26         | 4.08 | 2.91                | 4.22 | 1.69  | 3.56 |
| REGIONAL TOTALS              | 2.41         | 3.01         | 2.54         | 2.76 | 2.56                | 1.85 | 2.07  | 2.14 |
| Unknown Counties             | 0.00         | 0.00         | 0.00         | 1.93 | 1.30                | 2.86 | 0.00  | 0.00 |
| STATE TOTALS                 | 2.71         | 2.59         | 2.65         | 2.61 | 2.28                | 2.49 | 2.49  | 2.28 |

Table 4. Summary of mourning doves bagged per hunter-day by region and county, 1984-91.

| Region and             |        |        |                  |             | Year   |             |        | ····   |
|------------------------|--------|--------|------------------|-------------|--------|-------------|--------|--------|
| County                 | 1984   | 1985   | <u>    1986 </u> | <u>1987</u> | 1988   | 1989        | 1990   | 1991   |
| <u>Northern Region</u> | •      |        |                  |             |        |             | _      |        |
| Box Elder              | 9.96   | 5.48   | 10.36            | 11.51       | 10.31  | 12.06       | 9.95   | 9.60   |
| Cache                  | 4.71   | 3.85   | 2.46             | 2.99        | 2.94   | 4.87        | 3.34   | 5.54   |
| Davis                  | 3.35   | 2.91   | 2.08             | 1.93        | 3.27   | 2.01        | 2.57   | 2.39   |
| Morgan                 | 0.30   | 0.76   | 0.44             | 0.18        | 0.61   | 0.44        | 0.59   | 0.65   |
| Rich                   | 0.77   | 0.55   | 1.08             | 0.00        | 0.66   | 0.26        | 0.38   | 0.97   |
| Summit                 | 0.25   | 0.84   | 0.12             | 0.18        | 0.65   | 0.32        | 0.51   | 0.16   |
| Weber                  | . 3.57 | 4.21   | 2.71             | 2.12        | 3.67   | 3.54        | 3.54   | 2.39   |
| REGIONAL TOTALS        | 22.92  | 18.61  | 19.26            | 18.92       | 22.15  | 23.50       | 20.88  | 21.71  |
| <u>Central Region</u>  |        |        |                  |             |        |             |        |        |
| Juab                   | 9.42   | 10.97  | 11.09            | 8.36        | 8.09   | 9.79        | 9.45   | 8.78   |
| Salt Lake              | 7.90   | 5.59   | 5.50             | 5.39        | 4.37   | 3.56        | 5.71   | 5.00   |
| Sanpete                | 3.49   | 4.08   | 5.54             | 2.88        | 4.30   | 4.34        | 3.23   | 4.84   |
| Tooele                 | 8.67   | 7.42   | 11.39            | 8.55        | 10.92  | 8.58        | 6.37   | 8.56   |
| Utah                   | 13.94  | 17.75  | 14.38            | 20.06       | 16.17  | 16.27       | 12.83  | 16.37  |
| Wasatch                | 0.86   | 0.98   | 0.52             | 0.61        | 0.90   | 0.54        | 1.08   | 0.94   |
| REGIONAL TOTALS        | 44.27  | 46.79  | 48.42            | 45.87       | 44.78  | 43.08       | 38.67  | 44.50  |
| Southern Region        |        |        |                  |             |        | · · · · · · |        |        |
| Beaver                 | 2.31   | 1.55   | 1.82             | 1.67        | 1.76   | 2.28        | 1.29   | 1.94   |
| Garfield               | 0.26   | 0.02   | 0.01             | 0.12        | 0.25   | 1.09        | 0.92   | 0.35   |
| Iron                   | 1.68   | 4.05   | 3.82             | 3.24        | 3.22   | 3.07        | 6.20   | 3.07   |
| Kane                   | 1.41   | 0.28   | 0.30             | 0.66        | 0.33   | 0.64        | 0.07   | 0.91   |
| Millard                | 10.20  | 10.25  | 9.42             | 9.80        | 11.73  | 9.92        | 13.35  | 9.29   |
| Piute                  | 0.45   | 0.56   | 0.19             | 0.24        | 0.46   | 0.00        | 0.57   | 0.68   |
| Sevier                 | 3.98   | 3.24   | 3.50             | 4.67        | 3.59   | 6.11        | 4.05   | 4.80   |
| Washington             | 2.37   | 2.44   | 3.26             | 2.28        | 1.10   | 2.62        | 4.99   | 5.16   |
| Wayne                  | 0.11   | 0.35   | 0.33             | 1.35        | 0.14   | 0.73        | 0.11   | 0.03   |
| REGIONAL TOTALS        | 22,77  | 22.75  | 22.64            | 24.05       | 22,63  | 26.46       | 31.57  | 26.22  |
| Northeastern Regio     |        |        |                  |             |        |             | -      |        |
| Daggett                | 0.42   | 0.00   | 0.16             | 0.12        | 0.00   | 0.02        | 0.06   | 0.01   |
| Duchesne               | 0.99   | 1.42   | 1.05             | 0.76        | 1.27   | 0.85        | 1.62   | 2.61   |
| Vintah                 | 2.66   | 2.78   | 1.92             | 2.81        | 2.46   | 1.70        | 2.46   | 1.21   |
| REGIONAL TOTALS        | 4.07   | 4,20   | 3.14             | 3.70        | 3.73   | 2.57        | 4.15   | 3.82   |
| Southeastern Regio     |        |        |                  |             |        |             |        |        |
| Carbon                 | 2.39   | 2.93   | 1.65             | 0.74        | 1.67   | 0.44        | 0.41   | 1.24   |
| Emery                  | 1.45   | 3.35   | 1.83             | 2.66        | 3.70   | 2.23        | 2.85   | 1.16   |
| Grand                  | 0.88   | 0.27   | 1.24             | 0.84        | 0.18   | 0.26        | 0.96   | 0.18   |
| San Juan               | 1.24   | 1.10   | 1.81             | 2.54        | 0.59   | 1.24        |        | 1.18   |
| REGIONAL TOTALS        | 5.97   | 7.65   | 6.54             | 6.80        | 6.16   | 4.17        | 4.74   | 3.74   |
| Unknown counties       | 0.00   | 0.00   | 0.00             | 0.64        | 0.53   | 0.22        | 0.00   | 0.00   |
| STATE TOTALS           | 100.00 | 100.00 | 100.00           | 100.00      | 100.00 | 100.00      | 100.00 | 100.00 |

Table 5. Percentage distribution of mourning dove harvest by region and county, 1984-91.

| Region and         |        |           |        |        | Year   |        | ,      |        |
|--------------------|--------|-----------|--------|--------|--------|--------|--------|--------|
| County             | 1984   | 1985      | 1986   | 1987   | 1988   | 1989   | 1990   | 1991   |
| Northern Region    |        |           |        |        | _      |        |        |        |
| Box Elder          | 8.10   | 6.68      | 8.50   | 7.59   | 7.07   | 10.62  | 9.07   | 9.63   |
| Cache              | 5.97   | 4.37      | 3.34   | 3.81   | 3.59   | 5.43   | 4.96   | 6.43   |
| Davis              | 5.24   | 5.04      | 4.38   | 3.75   | 5.08   | 3.80   | 4.19   | 3.08   |
| Morgan             | 0.41   | 1.18      | 0.57   | 0.13   | 0.61   | 1.06   | 0.85   | 0.64   |
| Rich               | 0.30   | 0.64      | 0.76   | 0.00   | 0.59   | 0.52   | 0.49   | 0.64   |
| Summit             | 0.17   | 1.15      | 0.28   | 0.16   | 0.70   | 0.49   | 0.18   | 0.20   |
| Weber              | 5.97   | 6.66      | 4.35   | 4.22   | 7.11   | 4.70   | 5.94   | 4.19   |
| REGIONAL TOTALS    | 26.16  | 25.74     | 22.17  | 19.69  | 24.77  | 26.62  | 25.67  | 24.83  |
| Central Region     |        |           |        |        |        |        |        |        |
| Juab               | 5.50   | 5.64      | 6.37   | 6.47   | 5.82   | 5.49   | 6.35   | 6.01   |
| Salt Lake          | 10.51  | 7.75      | 7.36   | 9.02   | 5.52   | 4.07   | 5.99   | 5.64   |
| Sanpete            | 3.04   | 4.00      | 4.12   | 3.51   | 3.65   | 4.51   | 2.62   | 4.10   |
| Tooele             | 7.76   | 7.73      | 10.36  | 8.99   | 11.08  | 7.41   | 8.33   | 8.54   |
| Utah               | 16.38  | 18.88     | 17.53  | 19.93  | 19.18  | 19.53  | 15.52  | 19.75  |
| Wasatch            | 1.01   | 1.73      | 0.69   | 1.70   | 1.77   | 1.11   | 1.11   | 1.02   |
| REGIONAL TOTALS    | 44.21  | 45.73     | 46.43  | 49.64  | 47.09  | 42.12  | 39.91  | 45.06  |
| Southern Region    |        |           |        |        |        |        |        |        |
| Beaver             | 1.74   | 1.20      | 2.34   | 2.22   | 1.18   | 1.30   | 1.88   | 1.33   |
| Garfield           | 0.37   | 0.11      | 0.12   | 0.16   | 0.15   | 1.20   | 0.98   | 0.33   |
| Iron               | 1.42   | 2.15      | 2.82   | 2.38   | 2.03   | 2.63   | 3.52   | 2.51   |
| Kane               | 0.63   | 0.29      | 0.73   | 0.49   | 0.46   | 0.52   | 0.18   | 0.69   |
| Millard            | 6.23   | 6.33      | 6.86   | 7.89   | 9.11   | 6.98   | 7.50   | 6.77   |
| Piute              | 0.60   | 0.93      | 0.31   | 0.32   | 0.26   | 0.05   | 0.98   | 0.62   |
| Sevier             | 4.89   | 3.69      | 4.99   | 4.96   | 4.14   | 5.65   | 4.63   | 5.24   |
| Washington         | 2.35   | 2.04      | 2.18   | 1.94   | 0.76   | 3.07   | 4.42   | 3.24   |
| Wayne              | 0.15   | 0.38      | 0.33   | 0.54   | 0.15   | 0.52   | 0.46   | 0.09   |
| REGIONAL TOTALS    | 18.38  | 17.12     | 20.68  | 20.95  | 18.26  | 21.92  | 24.54  | 20.81  |
| Northeastern Regio |        | _ +/ • +2 | 20.00  | 20.95  | 10.20  | 21.72  |        | 20.01  |
| Daggett            | 0.75   | 0.07      | 0.35   | 0.32   | 0.06   | 0.22   | 0.08   | 0.02   |
| Duchesne           | 1.40   | 1.51      | 1.02   | 0.71   | 1.05   | 1.49   | 2.18   | 2.68   |
| Vintah             | 2.65   | 3.09      | 2.63   | 2.27   | 2.14   | 1.82   | 1.93   | 2.60   |
| REGIONAL TOTAL     | 4.80   | 4.66      | 4.00   | 3.31   | 3.26   | 3.53   | 4.19   | 5.30   |
| Southeastern Regio |        | . 4.00    | 4.00   | . 3.31 | J.20   |        | 4.12   |        |
| Carbon             | 2.91   | 2.82      | 1.56   | 0.87   | 1.90   | 1.44   | 0.87   | 1.31   |
|                    | 1.68   | 2.82      | 2.96   | 2.52   | 3.02   | 3.15   |        | 1.51   |
| Emery              | 0.93   | 0.35      |        | 2.52   |        | 0.30   | 3.47   | 0.36   |
| Grand              |        |           | 0.76   |        | 0.21   |        | 0.59   |        |
| San Juan           | 0.91   | 0.87      | 1.44   | 1.42   | 0.48   | 0.73   | 0.75   | 0.75   |
| REGIONAL TOTALS    | 6.44   | 6.75      | 6.72   | 5.62   | 5.62   | 5.62   | 5.68   | 3.99   |
| Unknown counties   | 0.02   | 0.00      | 0.00   | 0.76   | 0.96   | 0.19   | 0.00   | 0.00   |
| STATE TOTALS       | 100.00 | 100.00    | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Table 6. Percentage distribution of mourning dove hunting pressure by region and county, 1984-91.

.

| **                                     |               | Total     | Hunter-Days | Doves Per  | Doves Per |
|--|---------------|-----------|-------------|------------|-----------|
| Year                                   | Hunters       | Harvest   | Afield      | Hunter-Day | Hunter    |
| 1951                                   | 3,007         | 20,448    | 4,455       | 4.59       | 6.80      |
| 1952                                   | 6,420         | 49,498    | 10,784      | 4.59       | 7,71      |
| 1953                                   | 9,887         | 75,636    | 17,797      | 4.25       | 7.65      |
| 1954                                   | 9,901         | 75,941    | 19,724      | 3.85       | 7.67      |
| 1955                                   | 9,653         | 79,444    | 19,282      | 4.12       | 8.23      |
| 956                                    | 10,744        | 95,729    | 20,411      | 4.69       | 8.91      |
| .957*                                  | 11,298        | 86,769    | 18,620      | 4.66       | 7.68      |
| 1958                                   | 11,853        | 85,934    | 21,591      | 3.98       | 7.25      |
| 959                                    | 12,142        | 110,856   | 24,911      | 4.45       | 9.13      |
| .960                                   | 12,440        | 108,477   | 25,766      | 4.21       | 8.72      |
| .961                                   | 15,192        | 128,001   | 33,434      | 3.89       | 8.42      |
| 962                                    | 14,663        | 144,826   | 34,281      | 4.23       | 9.89      |
| 963                                    | 18,258        | 162,769   | 40,490      | 4.02       | 8.91      |
| 964                                    | 19,829        | 193,538   | 51,671      | 3.75       | 9.76      |
| .965                                   | 18,710        | 164,087   | 48,835      | 3.36       | 8.69      |
| 966                                    | 20,594        | 212,696   | 60,608      | 3.51       | 10.33     |
| 967                                    | 25,161        | 263,949   | 74,171      | 3.56       | 10.49     |
| 968                                    | 25,105        | 207,922   | 70,186      | 2.96       | 8.28      |
| 969                                    | 29,131        | 279,311   | 90,965      | 3.07       | 9.59      |
| 970                                    | 23,908        | 232,469   | 73,984      | 3.14       | 9.72      |
| 971                                    | 26,064        | 226,645   | 81,271      | 2.79       | 8.70      |
| 972                                    | 29,341        | 238,354   | 94,046      | 2.53       | 8.12      |
| 973                                    | 27,435        | 307,062   | 97,788      | 3.14       | 11.19     |
| 974                                    | 34,021        | 306,076   | 112,967     | 2.71       | 9.00      |
| 975                                    | 37,378        | 420,308   | 131,312     | 3.20       | 11.24     |
| 976                                    | 31,293        | 298,505   | 108,780     | 2.74       | 9.54      |
| 977                                    | 26,905        | 267,487   | 83,218      | 3.21       | 9.94      |
| 978                                    | 35,985        | 383,696   | 130,173     | 2.95       | 10.66     |
| 979                                    | 34,903        | 351,161   | 120,459     | 2.92       | 10.06     |
| 980                                    | 32,627        | 343,851   | 97,644      | 3.52       | 10.54     |
| 981                                    | 30,060        | 310,068   | 101,728     | 3.05       | 10.31     |
| 982**                                  | 31,756        | 282,188   | 107,728     | 2.62       | 8.89      |
| 983                                    | 28,258        | 272,979   | 100,568     | 2.71       | 9.66      |
| 984                                    | 30,573        | 282,307   | 108,793     | 2.59       | 9.23      |
| 985                                    | 28,183        | 256,045   | 96,507      | 2.65       | 9.09      |
| 986                                    | 26,583        | 226,985   | 87,084      | 2.61       | 8.54      |
| 987***                                 | 22,553        | 204,030   | 89,378      | 2.28       | 9.05      |
| 988                                    | 22,457        | 178,469   | 76,219      | 2.34       | 7.95      |
| 989                                    | 21,696        | 190,328   | 76,372      | 2.49       | 8.77      |
| 990                                    | 22,700        | 199,007   | 80,076      | 2.49       | 8.77      |
| 991                                    | 22,632        | 178,853   | 78,405      | 2.28       | 7.90      |
| `otals                                 | , <b>~~</b> _ |           |             |            |           |
| 1951-91)                               | 911,299       | 8,502,704 | 2,822,482   | <b></b>    | _         |
| verages                                |               |           | -,,         |            |           |
| ······································ |               | 208,096   | 68,602      | 3.36       | 9.08      |

\*\*Bag limit increased to 15.

\*\*\*Bag limit reduced to 10.

|                       |         |            | All Hunts |            |          |            |              | <b>Complete Hunts</b> | lunts |        |                   |
|-----------------------|---------|------------|-----------|------------|----------|------------|--------------|-----------------------|-------|--------|-------------------|
| Posion and            | Tatal   | Tatat      | Total     | Total      | Birds/   | Complete   | Total        | Total                 | Total | Birds/ | Birds/            |
| County                | Parties | Hunters    | Hours     | Birds      | 100 Hr   | Hunds      | Hunters      | Hours                 | Birds | 100 Hr | Hunter            |
| Northern Region       |         |            |           |            |          |            |              |                       |       |        |                   |
| Box Edder             | 23      | 147        | 142       | 291        | 20S      | <b>L</b> . | 15           | 11                    | Ř     | 200    | 17.1              |
| Cache                 | 9       | 12         | œ         | 16         | 200      | 1          | 1            | ;                     | ł     | ;      | 1                 |
| Davis                 | 14      | 28         | ŧ         | 41         | 137      | e          | 16           | 19                    | 8     | 158    | 1.88              |
| Morgan                | ł       | 1          | ;         | 1          | <b>I</b> | I          | 1            | 1                     | ;     | I      | 1                 |
| Rich                  | 1       | 1          | ł         | ١          | 1        | 1          | I            | ı                     | ł     | 1      | 1                 |
| Sunnit                | 1       | 1          | 1         | I          | I        | I          | 1            | 1                     | 1     | t      | ł                 |
| Welter                | 12      | 20         | 22        | 30         | 120      | <b>ا</b> م | 11           | 15                    | 11    | 13     | 1.00              |
| RECIONAL TOTALS       | 78      | 207        | 205       | 378        | 184      | 81         | 4            | 51                    | 75    | 147    | 1.79              |
| Central Region        |         |            |           |            |          |            |              |                       |       |        |                   |
|                       | 143     | 312        | 1.142     | 614        | 54       | 88         | 183          | 711                   | 456   | 64     | 2.49              |
| Salt Lake             | 2       | 8          | 106       | 28         | 26       | Ę          | ÷            | 28                    | 4     | 14     | 0.50              |
| Sannete               | 1       | t          | 1         | 1          | I        | I          | ;            | I                     | ł     | 1      | 1                 |
| Toolo                 | 1       | ı          | :         | ł          | 1        | ı          | 1            | 1                     | ł     | 1      | 1                 |
| Utah                  | 189     | 427        | 1.574     | 1,076      | 89       | 131        | 302          | 1,141                 | 865   | 76     | 2.86              |
| Westerh               | I       | 1          | I         | ļ          | ł        | I          | ı            | ı                     | 1     | :      | 1                 |
| RECIONAL TOTALS       | 342     | 769        | 2.822     | 1.718      | 61       | 222        | 403          | 1,880                 | 1,325 | 70     | 2.69              |
| Southern Region       |         |            |           | ,          |          |            |              |                       |       |        |                   |
| Beaver                | ł       | :          | 1         | 1          | ı        | ı          | L            | ı                     | 1     | ł      | ł                 |
| Garfield              | I       | :          | ł         | ;          | I        | I          | :            | 1                     | ;     | ł      | ;                 |
| Iron                  | I       | ı          | :         | 1          | ı        | I          | 1            | 1                     | 1     | I      | I                 |
| Kane                  | t       | 1          | :         | ł          | 1        | 1          | ı            | :                     | ł     | 1      | :                 |
| Millard               | ı       | :          | 1         | 1          | 1        | I          | I            | 1                     | 1     | I      | I                 |
| Piute                 | t       | ı          | 1         | ł          | :        | 1          | 1            | 1                     | ı     | 1      | <b>I</b> .        |
| Sevier                | 1       | I          | ;         | ł          | I        | ł          | 1            | ı                     | ł     | 1      | ł                 |
| Washington            | 1       | ı          | I         | ı          | ı        | I          | 1            | I                     | I     | 1.     | I                 |
| Wayne                 | 1       | 1          | 1         | . I        | ı        | 1          | ,            | 1                     | t     | •      | 1                 |
| REGIONAL TOTALS       |         | :          | 1         | l          | r        | I          | ,            | 1                     | 1     | +      | 1                 |
| Northeastern Region   |         |            |           |            |          |            |              |                       |       |        |                   |
| Daggett               | :       | ı          | ı         | I          | I        | I          | 1            | 1                     | ł     | 1      | 1                 |
| Duchesne              | I       | 1          | I         | 1          | 1        | 1          | 1            | :                     | 1     | 1      | I                 |
| Uintah                | 1       | 1          | 1         | 1          | ;        | 1          | •            | "                     | 1     | ,      |                   |
| REGIONAL TOTALS       | I       | ;          | 1         | 1          | ,        | 1          | 1            | •                     | :     | :      | •                 |
| Southeastern Region   |         |            |           |            |          |            |              |                       |       |        |                   |
| Carbon                | •••     | <b>v</b> a | 9         | 0          | I j      | 1          | 1 1          | 1                     | : 1   | 1 9    |                   |
| Emery                 | 17      | 20         | ŝ         | 6          | 281      | m          | •            | 15                    | ŧ     | 000    | hc.               |
| Grand                 | ı       | ı          | I         | ı          | 1        | t ·        | 1 •          | 1 •                   | 1 1   | : 5    |                   |
| San Juan              | •       | -          | 11        | <b>5</b>   | 28<br>20 | -          | -            | 7                     | ~ i   |        |                   |
| REGIONAL TOTALS       | 19      | 32         | 51        | 9 <u>1</u> | 208      | 4          | -            | =                     | 8     | 294    |                   |
| LEHI CHECK STATION    | 189     | 427        | 1.574     | 1,076      | 89       | 131        | 302          | 1,141                 | 885   | 2      | 7.82              |
| NEPHI CHECK STATION   | 143     | 312        | 1,142     | 614        | 54       | 88         | 1 <u>8</u> 3 | 11                    | 456   | 64     | 5- <del>6</del> 9 |
| THIOKOL CHECK STATION | 2       | 681        | 831       | 370        | \$       | 1          | t            | 1                     | 1     |        | 1                 |
|                       | 3       |            |           |            |          |            |              |                       |       |        |                   |

|                        | L Yard     |        | Š      |          |        |        | 1020   |            |            |             |        |             |
|------------------------|------------|--------|--------|----------|--------|--------|--------|------------|------------|-------------|--------|-------------|
| Region and             | Birds/     | Birds/ | Birds/ | Birds/   | Rirds/ | Reds/  | Rirde/ | Rirde/     | Itimdo/    | Diada       |        |             |
| County                 | 100 Hr     | Hunter | 100 Hr | Hunter   | 100 Hr | Hanter | Hunter | 100 11r    | Hunter     | 100 Hr      | Bunder | Ibrds/      |
| Northern Region        |            |        |        |          |        |        |        |            |            |             |        | IT AAT      |
| Box Elder              | 131        | 5.98   | 143    | 5.52     | 81     | 3.21   | 110    | 4.55       | 38         | 2.20        | -200   | 766         |
| Cacke                  | 163        | 5.33   | ł      | 1        | 1      | 1      | 1      | l I        | ŝ          |             | 007    | -           |
| Davis                  | 8          | 2.74   | 64     | 1.20     | 33     | 0.50   | 160    | 5.00       | 110        | - 11        | : 12   | : 6         |
| Morgan                 | ł          | ł      | :      | I        | 1      | I      | I      | I          | 1          | 1           |        | 00'1        |
| Rich                   | ł          | 1      | 1      | 1        | 1      | 1      | 1      | 1          | <b>1</b>   |             |        | 1           |
| Summit                 | I          | ł      | ı      | I        | 1      | I      | I      | I          | ţ          | ł           | . 1    |             |
| Weber                  | I          | 1      | I      | I        | ł      | 1      | 4      | 0.71       | 92         | 0.83        | F      |             |
| <b>REGIONAL TOTALS</b> | 129        | 5.72   | 140    | 5.20     | 8      | 3.10   |        | 4 42       | 5          | 101         | 2      |             |
| Central Region         |            |        |        | -        | 5      |        |        |            | *          | 661         |        | 1.19        |
| Juab                   | 89         | 4.30   | 1      | <b>,</b> | 1      | 1      | 511    | 6 30       | 116        | , A KA      | 5      |             |
| Salt Lake              | 333        | 3.33   | 1      | 1        | 1      | :      | 6 F    | ()<br>1 30 |            | 10.4        | 3 3    | 4,49        |
| Sanpete                | 20         | 0.56   | ;      | I        | 1      |        | 5 1    |            | I          | 1           | t      | <b>UC.U</b> |
| Tooele                 | 241        | 7.09   | I      | 1        |        | I I    |        | :          | 1 0        | 1 2         | :      | ı           |
| Utah                   | 12         | 1.80   | ı      | 1        |        |        | 1 2    | 1 1        | 6 <b>7</b> |             | 1 2    | 1 6         |
| Wasatch                | 1          | I      | ı      | ;        | 1      | I      | ; 1    | È I        | 3 1        | 0<br>7<br>7 | ę      | 00.2        |
| <b>REGIONAL TOTALS</b> | 75         | 3.84   | .      | 1        |        |        | 108    | 4.28       | PI         | 3.05        | F      |             |
| Southern Region        |            |        |        |          |        |        |        |            |            |             |        | 4.07        |
| Beaver                 | 224        | 9.25   | 131    | 5.75     | 1      | ;      | I      | ı          |            | 1           | 1      | ł           |
| Garfield               | I          | ł      | ı      | ı        | 4      | ł      | I      | 1          | ł          | 1           | 1      | I           |
| lron                   | 500        | 10.00  | 550    | 11.00    | 167    | 2.50   | 467    | 1.40       | I          | 1           | 1      | I           |
| Kane                   | 180        | 5.65   | ł      | 1        | I      | ı      | 1      | 1          | 1          | I           | 1      | 1           |
| Millard                | 172        | 6.20   | 5      | 2.73     | 175    | 1.08   | I      | 1          | 104        | 7.78        | 1      | ı           |
| Piute                  | 1          | I      | I      | :        | ł      | :      | ı      | 1          | 1          | 1           | 1      | I           |
| Sevier                 | I          | Ţ      | I      | 1        | 333    | 10.00  | 1      | I          | ł          | 1           | 1      | 1           |
| Washington             | 343        | 6.86   | ı      | I        | 206    | 5.54   | 369    | 1.20       | ı          | I           | 1      | 1           |
| Wayne                  | 1          | 1      | ı      | ı        | ł      | 1      | 1      | ı          | ŀ          | I           | 1      | ı           |
| REGIONAL TOTALS        | 203        | 6.41   | 126    | 5.23     | 213    | 3.68   | 444    | 1.33       | 104        | 7.78        | ,      | .1          |
| Northeastern Region    |            |        |        |          |        |        |        |            |            |             |        |             |
| Daggett                | <b>2</b> 9 | 1.11   | ı      | 1        | 1      | :      | 1      | I          | :          | 1           | 1      | I           |
| Duchesne               | 100        | 1.00   | I      | ł        | ı      | ł      | ı      | 1          | I          | ı           | I      | I           |
| Uintah                 | 124        | 2.37   | 111    | 3.33     | 111    | 3.33   | 214    | 8.57       | 4          | 1           | ł      | 1           |
| REGIONAL TOTALS        | 81         | 1.61   | 111    | 3.33     | 111    | 3.33   | 214    | 8.57       |            | 1           | 1      | '           |
| Southeastern Region    |            |        |        |          |        |        |        |            |            |             |        |             |
| Carbon                 | 177        | 0.37   | :      | 1        | 83     | 2.80   | 1      | ł          | 1          | I           | 1      | 1           |
| Emery                  | 233        | 3.50   | 641    | 7.05     | 139    | 4.00   | ı      | :          | 127        | 4.00        | 300    | 7.50        |
| Grand                  | ł          | 1      | I      | I        | t      | 1      | 92     | 2.00       | 1          | 1           | ł      | ;           |
| San Juan               | 261        | 5.64   | 397    | 7.38     | 200    | 4.00   | 1      | 1          | 129        | 6.00        | 250    | 5.00        |
| REGIONAL TOTALS        | 215        | 4.43   | 485    | 7.22     | 113    | 3.40   | 92     | 2.00       | 127        | 4.90        | 294    | 7.14        |
| LEHI CHECK STATION     | 50         | 2.39   | 78     | 3.23     | 50     | 2.19   | 91     | 3.47       | 65         | 2.43        | 76     | 2.86        |
| NEPHILCHECK STATION    | 37         | 1.68   | 114    | 5.09     | 68     | 5.12   | 133    | 6.39       | 104        | 81.7        | Z      | 2.49        |
| THIOKOL CHECK STATION  |            |        |        |          |        |        |        |            |            |             | 1      | ,           |
| STATE TOTALS           | 5          | 2 04   | 110    | 121      | Ē      | 1 05   | 11     |            |            |             |        |             |

ľ

Table 9. Mourning dove hunter success trend as determined by field bag chec

| County         U         HOMAIN         V         J00A(n)         V         J00A(n)           Northern Region         101         700         124         716           Save Elder         101         101         124         716           Cache         1         1         1         1           Davia         1         1         1         1           Morgan         1         1         1         1         1           Morgan         1         1         1         1         1         1           Morgan         1  |       | V 100A(n)<br>515<br>515<br>515<br>515<br>517<br>55<br>517<br>55<br>51<br>51<br>51<br>51<br>51<br>51<br>51<br>51<br>51<br>51<br>51<br>51                  | 1/ 100A(h)<br>135 1.177 |       | 1/ 100A(n)<br>246 137 |        | 1/ 1004(n) | I/ 1004(n) | (u)   | I/ 100A(n) | 1/ 10      | l/ 100A(n)  | I/ 100A(n) | (u)   | [/ 300A(n) |     |            |
|--|-------|--|-------------------------|-------|-----------------------|--------|------------|------------|-------|------------|------------|-------------|------------|-------|------------|-----|------------|
| rern Region<br>10 T 700 124<br>10 T 700 124<br>11 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |       | 515 × 12 × 13<br>517 - 1 + 8 + 1 × 5<br>517 - 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 | 135                     |       |                       |        |            |            |       |            |            |             |            |       |            | 2   | 1/ 1004(n) |
| Refer         107         700         124           n         -         -         -         -           n         -         -         -         -         -           n         -         -         -         -         -         -           n         -         -         -         -         -         -         -           n         - <td< th=""><th></th><th>55 v 1 4 1 1 X 55</th><th>125</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<> |       | 55 v 1 4 1 1 X 55  | 125                     |       |                       |        |            |            |       |            |            |             |            |       |            |     |            |
| n     -     -     -       an     -     -     107       an     -     -     -       htt     -     -     -       nit     -     -     -       http://tortus     -     -     -       http://tortus     -     -     -  |       | v E & I I ¥ Ê  | 2                       |       |                       |        |            | 2          | 22    |            | 8          | <b>8</b> 08 | ŝ          | 5     | 1<br>1     |     |            |
| an     -     -     107       an     -     -     -     -       nt     -     -     -     -       ate     -     -     -     -       ete     -     -     -     -       ete     -     -     -     -       oNAL TOTALS     -     -     -     -   |       | C & I I ¥ C  | ı                       | 1     | 181 45                | I      | ۱          |            | 17    | י<br>ו     | ı          | ı           |            | ı     | 1<br>1     |     |            |
| an   |       | \$ I I \$  | 121                     |       |                       |        |            |            | 1     |            | 1          | ł           |            | 1     | 1<br>1     |     |            |
| nit  |       | 5 I I X 5  | '                       |       |                       |        |            |            | ,     |            | •          | ,           |            | r     | 1<br>1     |     |            |
| lt   |       | 1 7 5  | C                       |       |                       |        |            |            |       |            |            |             |            | I     |            |     |            |
| nt   |       | 1 2 2  | 2                       |       |                       |        |            |            |       |            | ı          | 1           |            | ,     |            |     |            |
| r<br>(ONAL TOTALS 107 700 135<br>al Region   |       | ¥ 59   | ı                       |       |                       |        |            |            | 1     |            | •          | •           |            | ı     | 1          |     |            |
| CONALTOTALS 107 706 135<br>al Koçion   |       | 617  | ı                       |       |                       |        |            |            |       |            | 1          | •           |            |       |            |     |            |
| ul Regen<br>alte   |       |  | 81                      |       | 1346 2401             |        |            |            | 7.HZ  |            | 78         | 405         | 539        | 487   | 1          | 138 | Ę          |
| ake  |       |  |                         | ľ     |                       |        |            |            |       |            |            |             | Ł          |       |            |     |            |
| ake  |       | ı  | ,                       | ,     |                       | ,      | ł          | ı          | ,     |            | '          | •           | ı          | 1     |            |     |            |
| (e   |       | I  | 1                       | 1     |                       | ľ      | ı          | ,          | ,     | ו<br>ו     | 1          | •           | ı          | ,     | 1          |     |            |
| ie   |       | I  |                         |       |                       |        |            |            |       |            |            |             |            |       |            |     |            |
| - 78 71 80<br>100<br>ch 100<br>ONALTOTALS 78 71 89   |       | 1  | ı                       | 1     |                       | 1      | ı          | 1          | 1     |            | ı          | •           | ı          | 1     |            |     |            |
| kh 200<br>NALTOTALS  |       | ı  | ı                       | ı     |                       | ł      | ı          | ı          |       |            | ı          | ı           | 1          | 1     |            |     |            |
|  |       | 1  | ı                       | 1     |                       | 1      | 1          | 1          | 1     |            | ı          | 1           | 1          | 1     |            |     |            |
| 52 II 52   |       | I  | I                       | 1     |                       | ł      | ł          | 1          | 1     |            | ı          | 1           | 1          | ,     | т<br>1     |     |            |
|  |       |  |                         |       |                       |        |            |            |       | ł          |            | .           | .          | ,     |            | æ   | 22         |
|  | ı     |  |                         |       | l                     |        |            |            |       |            |            |             |            |       |            |     |            |
|  | I     |  |                         |       |                       |        |            |            |       |            |            |             |            |       |            | -   |            |
|  |       | 1  | ı                       | i     |                       | ſ      | ł          | •          | 1     | 1          | ı          | •           | •          | ı     | 1          |     |            |
| Garfield   | 1     | ı  | •                       | •     |                       | I      | •          | ł          | 1     |            | 1          | ı           | ı          | 1     |            |     |            |
| 1 June 1 June 1  | 1     | 1  | ı                       | ı     | 1<br>1                | ł      | I          | ,          |       |            | 1          | ı           | 1          | ı     |            |     |            |
| Kane I I   | 1     | ı  | ı                       | 1     |                       | '      | ı          | ı          |       |            | •          | ł           | ı          | 1     | ו<br>ו     |     |            |
| Millard – – – – – –  | 1     | ı  | ı                       |       | 1                     | 1      | ł          | ł          | ı     |            | ı          | ı           | ı          | 1     |            |     |            |
| Plute I I I I  | I     | ı  | ı                       |       |                       | •      | ı          | ,          | •     |            | I          | 1           | ı          | ,     |            |     |            |
| Sevier I I I I   | T     | ı  | ı                       |       |                       | ł      | ł          | ı          | ŧ     |            | ŧ          | ı           | 1          | 1     |            |     |            |
| Washington.  | ".    | ı  | ţ                       | t     |                       | '      | ı          | ı          | •     |            | ı          | ı           | •          | ı     |            |     |            |
| Wayne – – – – – –  | I     | ı  | 1                       | 1     |                       | 1      | ı          | ł          |       |            | •          | ,           | •          | ł     |            |     |            |
| NAL TOTAL9   | '<br> | .  | .                       | .     | '<br>                 | '      |            | .          | ۱.    | I          | •          | 1           | 1          |       | 1          | -   | 1          |
|  |       |  |                         |       |                       |        |            |            |       |            |            |             |            |       |            |     |            |
| Daggeit  | 1     | ı  | ł                       | ł     |                       |        | 1          | ı          | 1     |            | 1          | ı           | t          | ı     |            |     |            |
| Ductierne = +  | 1     | ı  | 1                       | ,     |                       |        | 1          | ļ          | 1     |            | 1          | •           | •          | ı     |            |     |            |
| Clintath =   | 1     | ı  | •                       |       |                       |        | ı          | ı          | 1     |            | I          |             | 1          |       | !          |     |            |
| 1  | ľ     |  |                         |       | 1                     | 1      |            |            |       | 1          | 1          | 1           | •          | 1     |            | 1   | '          |
| Southezstern Region  |       |  |                         |       |                       |        |            |            |       |            |            |             |            |       |            |     |            |
| Carbon 160 138   | 1     | 1  | ı                       |       |                       |        |            |            |       |            | 1          | ļ           |            |       |            |     |            |
| Emery 260 18 76 68   | ı     | ı  | ı                       | ,     | י<br>ז                |        | 61         |            | 187   | 70 187     | 88         | 33          | 4          |       | 81<br>36   |     |            |
| Grand  | I     | ı  | ı                       |       |                       |        |            |            |       |            | 8          | =           |            |       |            |     |            |
| San Juan 50 74   | 1     | ı  | ı                       |       |                       |        |            |            |       |            | <b>9</b> 5 | 66          | i          |       |            |     |            |
| AL TOTALS 65 102 119 2   |       | ;  | 1                       |       |                       |        |            |            |       |            | 8          | 3           |            |       |            | 8   | 55         |
| ON 75 2.075 89   | ľ     | 1.021  |                         | -     |                       |        |            |            | ļ     | ŀ          | 8          | Ę           |            |       |            | 8   | 1,162      |
| N 105 1.067 62   | [     | 123  | <u>8</u>                |       | L                     | 8<br>8 |            | 8          | [-    | 1.047 671  | 2          | 38          |            | 878   | 126 772    | 215 | 1,046      |
| ON   | .     |  | 1                       |       |                       |        | L          |            |       |            |            |             |            |       |            | 1   | 1          |
|  | Į     | 100  | 161                     | 1 004 | 117 3 317             | 5      | 1 013      | 111        | 3 536 |            | E          | 2.64        | 121        | 1.813 | 114 1.955  |     | 3.650      |

ŗ

| labte II.                | l'ercent | labte 11. Fercent of harvest by hatching date of immature mourning doves in northern Utah, 1982-91 | y hatching | g date of | f immatu          | HOM HI | ming do | ves in no                        | rthem ( | Utah, 19. | 82-91. |      |      |           |            |       |             |            |        |     |     |   |
|--------------------------|----------|--|------------|-----------|-------------------|--------|---------|----------------------------------|---------|-----------|--------|------|------|-----------|------------|-------|-------------|------------|--------|-----|-----|---|
| Date                     | Age      |  |            |           | PERCE             | NT OF  | HARVE   | PERCENT OF HARVEST BY HATCH DATE | IATCH   | DATE      |        |      |      |           |            |       | CAMPLE CI76 | C1710      |        |     |     |   |
| Hatched                  | (Days)   | •  | 1982       | 1983      | 1984              | 1985   | 1986    | 1987                             | 1988    | 1989      | 0661   | 1661 | 1982 | 1981      | 1084       | 1005  | 1002        |            | 1000   |     |     |   |
| Aug 3                    | 29       | none .   | 32.60      |           | 22.80 43.10       | 44.70  | 31.20   | 34.80                            |         | 41.30     | 52.20  |      | 12   |           | 1.         |       |             |            |        | ~   |     |   |
| Jul 31                   | 32       | Ţ  | 24.90      |           | 21.30 29.40 26.80 | 26.80  | 35.00   | 21.80                            | 1       |           | 26.70  | I    | 911  | : f       | 102        | -     |             | <u>6</u> 5 |        |     | 53  | : |
| Jul 25                   | 38       | 7  | 21.70      |           | 21.00 19.00 14.00 | 14.00  | 15.60   | 17.50                            | 1       |           | 13.10  | I    | 101  |           | 134        |       |             |            |        |     | _   | 1 |
| Jul 18                   | 45       | ę  | 7.70       | 14.80     | 6.00              | 3.90   | 8.60    | 10.60                            | ;       | 6.60      | 4.30   | 1    | 36   | 5         | 4          |       |             | e 5        | · ·    | 8 E | 2 2 | I |
| 9 PH 9                   | 54       | 4  | 4.70       | 9.20      | 2.10              | 1.90   | 4.70    | 5.70                             | I       | 2.60      | 2.30   | r    | 53   | 31        | 15         |       |             |            | · ·    |     |     |   |
| Jun 30                   | 63       | ŝ  | 4.10       | 6.20      | 0.40              | 1.60   | 2.80    | 4.30                             | 1       | 0.50      | 0.60   |      | 19   | 31        | <b>6</b> 3 | 4     | 1           | 61         | ·      |     |     | 1 |
| Jun 21                   | 1        | 9  | 2.80       | 2.10      | 0.00              | 0.0    | 1.30    | 3.80                             | I       | 00.0      | 0.40   | ł    | 13   |           |            |       | -           | 1          |        |     |     | 1 |
| Jun 8                    | 85       | ۲  | 1.30       | 2.40      | ł                 | 0.00   | 0.50    | 1.10                             | 1       | 0.50      | I      | 1    | é    | • • • • • | 0          | ÷     | •           | lo lo      | · -    | · · |     |   |
| May 22                   | 102      | ÷  | 0.20       | 0.0       | 1                 | 0.00   | 0.30    | 0.20                             | ł       | 0.00      | ı      | ł    | -    | -         | Đ          | •     | Ä           | -          |        |     | •   | 1 |
| Apr 27                   | 127      | ٩  | I          | I         | I                 | 0.0    | 0.00    | 0.20                             | I       | 0.0       | 0.40   | I    | ¢    | •         | 0          | ÷     | -           |            | -      |     | '   | , |
| Apr 21                   | 133      | 10   | I          | I         | I                 | 7.00   | 0.00    | 0.00                             | I       | 0.00      | 0.00   | ;    | 0    | •         | ÷          | 18    | -           | •          | -<br>- | 1   |     | 1 |
|                          |          |  | 100        | 99.80     | 8                 | 96.90  | 100     | 100                              | 1       | 100       | 100    | 1    | 466  | 338       | 705        | 257 6 | 615 4       | 445        | 104    | 407 |     | 1 |
| P = Last primary molted. | primary  | molted.  |            |           |                   |        |         |                                  |         |           |        |      |      |           |            |       |             |            |        |     |     |   |

| Date         Age         Leti         Neplii         C Region         Thicked         SE         Leti         Neplii         C Region         Thicked         CS         Total         To                          |                |        | PERCENT OF | PERCE |       | HARVEST BY HATCH DATE | Y HATCH  | DATE   |               |       | SAMPLE SIZE | SIZE     |        |
|--|----------------|--------|------------|-------|-------|-----------------------|----------|--------|---------------|-------|-------------|----------|--------|
| of (Days)         P         CS         Total         CS         Region         CS         CS         Total         Total         CS         Total         CS         Total         Total | Date           | Age    |            | Lehi  | Nephi | C Region              | Thiokol  | SE     | Lehi          | Nephi |             |          | SE     |
| 29         none         47.61         45.57         46.75         -         37.25         199         139         338           32         1         32.78         32.46         32.64         -         37.25         137         99         236           38         2         11.48         10.49         11.07         -         13.73         48         32         80           45         3         5         5.05         1.66         -         13.73         48         32         80           54         4         0.72         2.95         1.66         -         13.66         3         9         12           63         5         12.0         0.33         0.83         -         3.92         6         12         43           72         6         0.48         0.33         0.41         -         3.92         1         6           73         6         0.48         0.33         0.41         -         3.92         1         6         43           73         73         9         1         0         1         1         5         1         7         4           1   | <b>Hatched</b> | (Days) | ▲          | CS    | S     | Total                 | CS       | Region | CS            | S     | Total       | CS       | Region |
| 32       1       32.78       32.46       32.64       -       37.25       137       99       236         38       2       11.48       10.49       11.07       -       13.73       48       32       80         45       3       5.26       6.89       5.95       -       5.88       22       21       43         54       4       0.72       2.95       1.66       -       1.96       3       9       12         63       5       120       0.33       0.41       -       3.92       5       1       6         72       6       0.48       0.33       0.41       -       0.00       2       1       6         72       6       0.48       0.33       0.41       -       0.00       2       1       3         85       7       0.48       0.55       -       0.00       2       1       3         85       102       0.93       0.41       -       0.00       2       2       4         101       127       9       0.00       0.00       0.00       2       2       2       4         1033  | ug 3           | 29     | none       | 47.61 | 45.57 | 46.75                 | I        | 37.25  | 199           | 139   | 338         | <b>I</b> | 61     |
| 38       2       11.48       10.49       11.07        13.73       48       32       80         45       3       5.26       6.89       5.95        5.88       22       21       43         54       4       0.72       2.95       1.66        1.96       3       9       12         63       5       1.20       0.33       0.83        3.92       5       1       6         72       6       0.48       0.33       0.41        0.00       2       1       6         85       7       0.48       0.33       0.41        0.00       2       1       3         85       7       0.48       0.56       0.55        0.00       2       2       4         1127       9       0.00       0.00       0.00       2       2       2       4         1127       9       0.00       0.00       0.00       0.00       2       2       2       4         1127       9       0.00       0.00       0       2       2       2       4         1123  | 131            | 32     | 1          | 32.78 | 32.46 | 32.64                 | ł        | 37.25  | 137           | 66    | 236         | ł        | 61     |
| 45       3       5.26       6.89       5.95        5.88       22       21       43         54       4       0.72       2.95       1.66       -       1.96       3       9       12         63       5       1.20       0.33       0.83       -       3.92       5       1       6         72       6       0.48       0.33       0.41        0.00       2       1       5         85       7       0.48       0.33       0.41        0.00       2       1       5         85       7       0.48       0.55       -       0.00       2       2       2       4         8       7       0.48       0.55       -       0.00       2       2       4         102       8       0.00       0.00       0.00       2       2       2       4         127       9       0.00       0.00       0.00       2       2       2       4         133       10       0.00       0.00       0.00       0       0       0       0       0       0         133       10       <  | I 25           | 38     | 7          | 11.48 | 10.49 | 11.07                 | ł        | 13.73  | 48            | 32    | 80          | 1        | ٢      |
| 54         4         0.72         2.95         1.66         -         1.96         3         9         12           1         72         6         0.48         0.33         0.83         -         3.92         5         1         6           1         72         6         0.48         0.33         0.41         -         3.92         5         1         6           85         7         0.48         0.55         -         0.00         2         1         3           22         102         8         0.00         0.00         0.00         2         2         4           7         127         9         0.33         0.14         -         0.00         0         0         0         0         0         0         0         1   | 118            | 45     | e.         | 5.26  | 6.89  | 5.95                  | 1        | 5.88   | 22            | 21    | 43          | ł        | 5      |
| 63       5       1.20       0.33       0.83       - $3.92$ 5       1       6         72       6       0.48       0.33       0.41       - $0.00$ 2       1       3         85       7       0.48       0.55       - $0.00$ 2       1       3         102       8       0.00       0.00       0.00       - $0.00$ 0.0       0       0       0       0         127       9       0.00       0.33       0.14       - $0.00$ 0       0       0       0       0       0       0       1       1       1         133       10       0.00       0.33       0.14       - $0.00$ 0       0       0       0       0       0       0       0       0       0       0       1   | 61             | 54     | 4          | 0.72  | 2.95  | 1.66                  | i        | 1.96   | ę             | 6     | 12          | 1        | Ţ      |
| 72         6         0.48         0.33         0.41          0.00         2         1         3           85         7         0.48         0.66         0.55         -         0.00         2         2         4           85         7         0.48         0.66         0.55         -         0.00         2         2         4           102         8         0.00         0.00         0.00         0.00         0         0         0         0         0         0         1  | m 30           | 8      | LO         | 1.20  | 0.33  | 0.83                  | 1.       | 3.92   | <b>M</b><br>L | 1     | Q           | ł        | 7      |
| 85         7         0.48         0.66         0.55         -         0.00         2         4           102         8         0.00         0.00         0.00         0.00         0         0         0         0         0         1         1           127         9         0.00         0.33         0.14         -         0.00         0         0         0         0         0         1         1         1         1           133         10         0.00         0.00         -         0.00         0         0         0         0         0         0         0         0         0         0         1         1         1         1         1           133         10         0.00         0.00         0.00         -         0         0         0         0         0         0         0         0         0         0         1   | n 21           | 72     |            | 0.48  | 0.33  | 0.41                  | ł        | 0.00   | 7             | . 🛁   | <b>6</b>    | 1        | I      |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$   | л 8<br>8       | 85     | ٢          | 0.48  | 0.66  | 0.55                  | I        | 0.00   | 7             | 7     | 4           | I.       | ł      |
| $\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$   | ay 22          | 102    | ø          | 0.00  | 0.00  | 0.00                  | I        | 0.00   | 0             | o     | 0           | 1        | I      |
| $133  10 \qquad 0.00  0.00  0.00  -  0.00  0  0  0  0  100  100  -  -  100  -  -  100  -  -  100  -  -  -  -  -  -  -  -  - $  | pr 27          | 127    | 6          | 0.00  | 0.33  | 0.14                  | <b>1</b> | 0.00   | 0             | 1     | 1           | <b>I</b> | ł      |
| <u>    100    100                        </u>  | pr 21          | 133    | 10         | 0.00  | 0.00  | 0.00                  | I        | 0.00   | 0             | •     | e           | I        | 1      |
|  |                |        |            | 100   | 100   | 100                   | 1        | 100    | 418           | 305   | 723         | I        | 51     |

51

P = Last primary molted.

#### BAND-TAILED PIGEON

#### **Banding**

Between 1969 and 1978, 2,649 total pigeons were banded in Utah and 975 recaptured. Results of banding efforts through 1972 indicated a direct recovery rate of 1.4 percent. If expanded, using an assumed 30 percent band reporting rate, an estimated harvest rate of less than 5 percent of the state's pigeon population is indicated. Addition of an estimated 16 percent crippling loss would result in a total kill rate of from 5-10 percent, well within the harvestable surplus.

#### <u>Harvest</u>

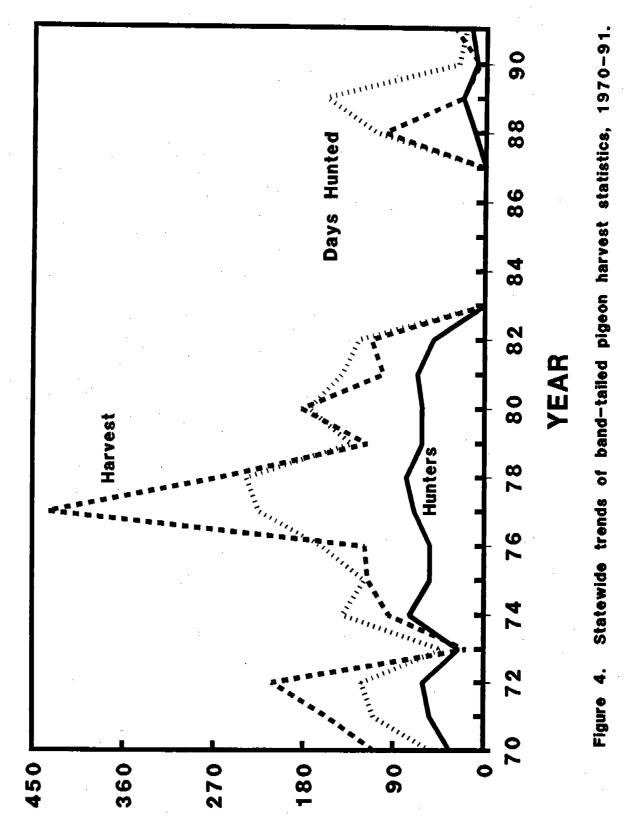
Results of the 1991 band-tailed pigeon harvest is in Table 13. Permits were required in 1991 and a questionnaire was sent to participants. Only 19 hunters purchased the \$3.00 band-tailed pigeon permit in 1991. Harvest trends since 1970 are shown in Figures 4 & 5 and Table 14.

|                            |             | Percent | <u>change from</u> |
|----------------------------|-------------|---------|--------------------|
|                            | <u>1991</u> | 1990    | Average            |
| Band-tailed pigeon hunters | 15          | +67     | -62                |
| Band-tailed pigeon harvest | 31          | +343    | -71                |
| Hunter-days afield         | 20          | -29     | -81                |
| Pigeons per hunter-day     | 1.50        | +477    | +93                |
| Pigeons per hunter         | 2.10        | +163    | · -5               |

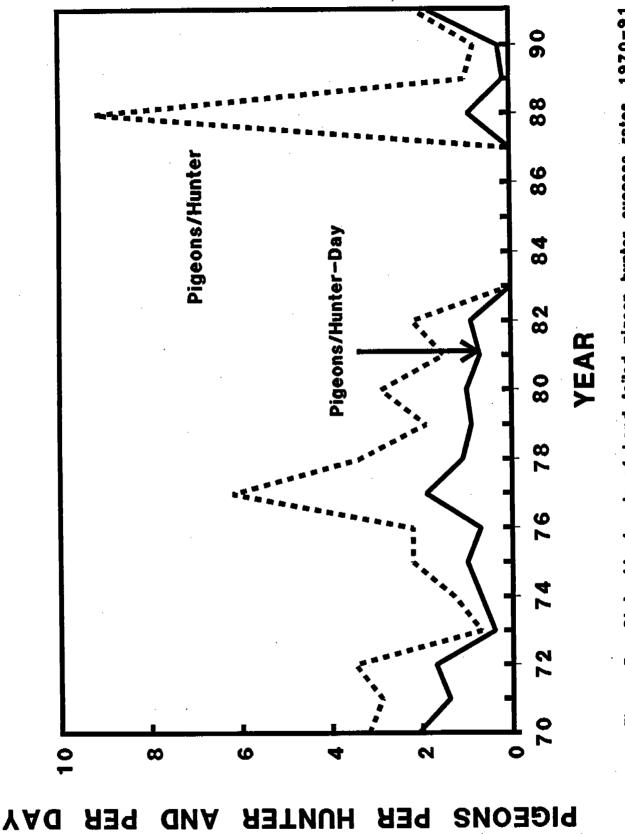
Band-tailed pigeon hunters afield increased slightly from 1990, but remains 62 percent below the long-term average. Hunter success rates increased substantially from 1990, however, only 31 birds were harvested. Pigeon harvest was reported in Beaver, Millard and Washington counties. Most of the harvest for 1991 was reported in Beaver County.

|                         | Participating | Hunters | Hunter Days | Days  | llarvest | st    |            |            |            |
|-------------------------|---------------|---------|-------------|-------|----------|-------|------------|------------|------------|
|                         | •             |         |             |       |          |       | Pigeons/   | Percent of | Percent of |
| Area Hunted             | Reported      | Calc.   | Reported    | Calc. | Reported | Calc. | Hunter-Day | Pressure   | Harvest    |
| Beaver County           | 4             | 9       | s           | 6     | 10       | 15    | 2.0        | 40         | 48         |
| Blue Mountain-Elk Ridge | ¥             | *       | *           | •     | •        | •     | ¥          | •          | ¥          |
| Carbon County           | ¥             | *       | *           | ¥     | *        | *     | ¥          | *          | *          |
| Garfield County         | •             | *       | •           | ÷     | *        | *     | ÷          | <b>*</b>   | ¥          |
| Iron County             | •             | *       | •           | •     | ¥        | •     | *          | *          | *          |
| Kane County             | *             | *       | ¥           | •     | +        | •     | *          | *          | ŧ          |
| LaSal Mountain          | *             |         | .*          | •     | ÷        | *     | ·          | *          | *          |
| Millard County          | 4             |         | 7           | 10    | 9        | 6     | 0.9        | 40         | 29         |
| Piute County            | •             | •       | *           |       | *        | ÷     | ¥          | ŧ          | *          |
| Utah County             | *             | •       | *           | ŧ     | *        | •     | ¥          | *          | *          |
| Washington County       | 2             | £       | 7           | , eo  | o.       | L     | 2.5        | 20         | 24         |
| Wayne County            | •             |         | *           | •     | *        | *     | ÷          | *          | ¥          |
| Mixed Counties          |               |         |             |       |          |       |            | ¥          | *          |
| (Washington and Iron)   | •             | •       | •           | *     | ÷        | •     | *          | •          | *          |
| Totals                  | 10            | 15      | 14          | 20    | 21       | 31    | 1.50       | 100        | 100        |

Projection Factor = 1.4615385 (19 permits issued/13 questionnaires returned)



ΤΟΤΑΓ





| Year    | Total Hunters | Total Harvest                          | Hunter-Days Afield | Pigeons/Hunter-Day | Pigeons/Hunter |     |
|---------|---------------|--|--------------------|--------------------|----------------|-----|
| 970     | 34            | 109                                    | 53                 | 2.10               | 3.20           |     |
| 971     | 54            | 156                                    | 110                | 1.40               | 2.90           |     |
| 972     | 61            | 211                                    | 122                | 1.70               | 3.50           |     |
| 973     | 25            | 18                                     | 42                 | 0.40               | 0.70           |     |
| 974     | 74            | 95                                     | 141                | 0.70               | 1.30           |     |
| 975     | 54            | 116                                    | 119                | 1.00               | 2.20           |     |
| 976     | 54            | 119                                    | 162                | 0.70               | 2.20           |     |
| 977     | 70            | 435                                    | 225                | 1.90               | 6.20           |     |
| 978     | 78            | 264                                    | 238                | 1.10               | 3.40           |     |
| 979     | 62            | 117                                    | 133                | 0.90               | 1.90           |     |
| 980     | 62            | 182                                    | 175                | 1.00               | 2.90           |     |
| 981     | 67            | 101                                    | 142                | 0.70               | 1.50           |     |
| 982     | 51            | 113                                    | 125                | 0.90               | 2.20           |     |
| 983     |               | _                                      | -                  | -                  |                |     |
| 984     | _             |  | _                  | _                  | -              |     |
| 985     | -             | -                                      | -                  | -                  |                |     |
| 986     | -             | -                                      | -                  | · <u> </u>         | _              |     |
| 987     |               | _                                      |                    | ·                  |                |     |
| 988     | 11            | 101                                    | 109                | 0.93               | 9.20           |     |
| 989     | 23            | 24                                     | 159                | 0.15               | 1.00           |     |
| 990     | 9             | 7                                      | 28                 | 0.26               | 0.80           |     |
| 991     | 15            | 31                                     | 20                 | 1.50               | 2.10           |     |
| otals   |               |  |                    |                    |                | • • |
| 970-91) | 804           | 2,199                                  | 2,103              |                    | -              | ·   |
| verages |               | ······································ | ,                  |                    |                |     |
| 970-90) | 39            | 108                                    | 103                | 0.78               | 2,22           |     |

# CHUKAR PARTRIDGE

## SUMMARY

The statewide breeding population of chukars decreased in 1991 following the sixth straight year of drought over much of Utah. Late winter and early spring precipitation, critical to successful chukar production, was below average.

Results of the brood survey indicated that brood production was above average. Chukar density increased during 1991, and was below average.

Harvest statistics from mail questionnaires reflected a decrease in harvest. Hunter success (chukars per hunter-day) increased slightly from 1990. Chukar hunters and time afield decreased slightly from the year before. Hunting success on opening weekend, as measured by field bag checks, indicated decreased hunter success.



#### Brood Counts

Results of the annual random brood survey for 1991 are shown in Table 1 of this section. Long-term trends of young per adult ratios, mean brood size and chukars observed per 100 hours are found in Tables 2-4 and Figure 1. Following are the survey results for 1991 compared to 1990 and the 10-year (1981-90) average:

|                                | <u>1991</u> | <u>Percent</u><br><u>1990</u> | <u>change from</u><br><u>Average</u> |
|--------------------------------|-------------|-------------------------------|--------------------------------------|
| Total chukars observed         | . 76        | -75                           | -89                                  |
| Young per 100 adults           | 533         | +87                           | +24                                  |
| Mean brood size                | 7.33        | +33                           | +4                                   |
| Chukars observed per 100 hours | 267         | +9                            | -49                                  |
| Total hours effort             | 29          | -77                           | -78                                  |

Harvest data for 1990 indicated breeding populations for 1991 were still significantly below statewide averages. The 1990-91 winter weather was drier than normal October through February and colder than normal December through January. Late winter and early spring precipitation (January-April) was below average over the entire state (Figure 4). Drought continued over most of Utah for the sixth straight year.

Effort on chukar brood counts decreased significantly in 1991 and remained below average.

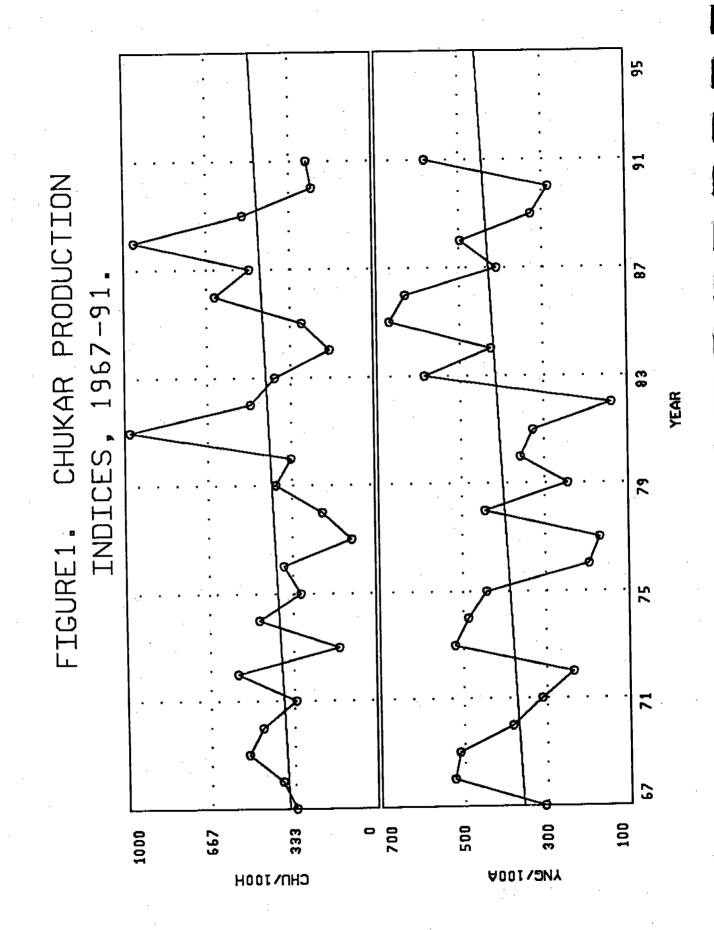
Brood count sample sizes were again small or nonexistent for all regions except the Central region. Chukar density was below the 10-year average and production was up from 1990.

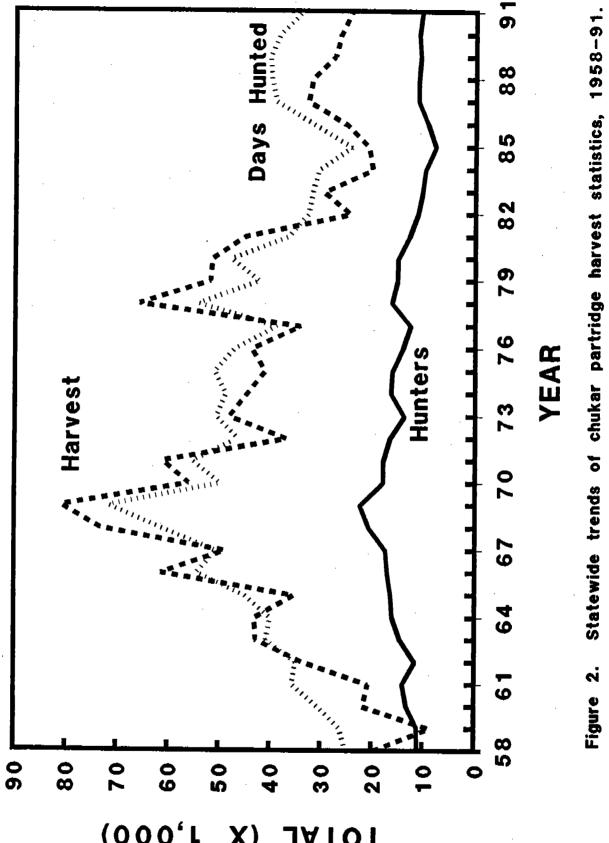
#### Harvest

#### <u>Hunter Questionnaire</u>

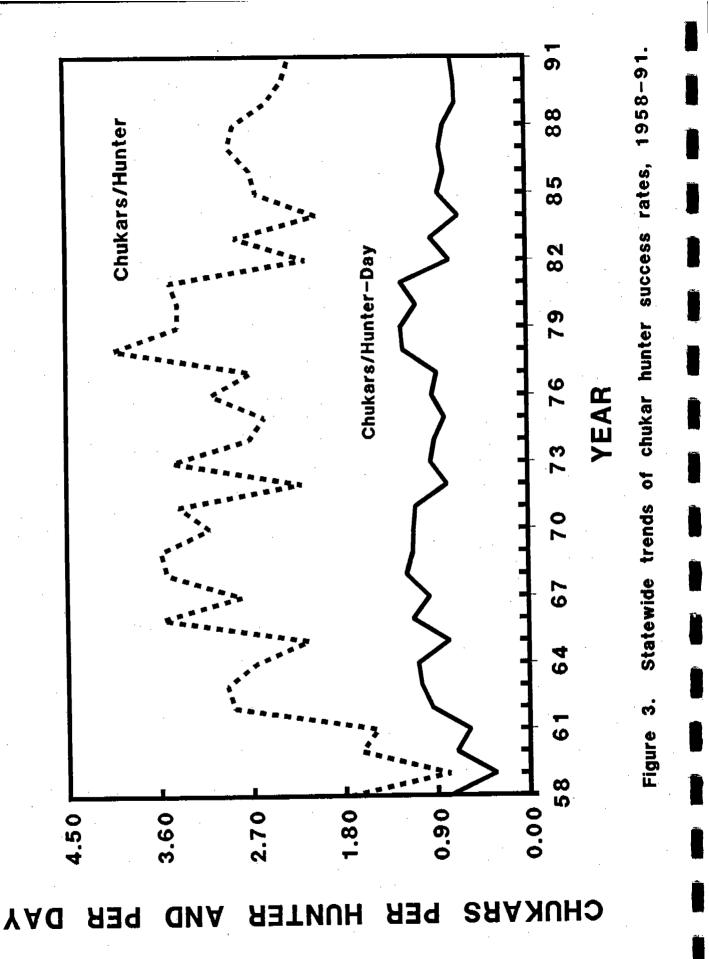
Results of the hunter questionnaire survey for 1991 are shown in Table 5. Long-term trends of chukars bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 6-8 and total statewide harvest statistics in Table 9 and Figures 2 and 3. Following is a comparison of 1991 harvest statistics to 1990 and the previous 33-year

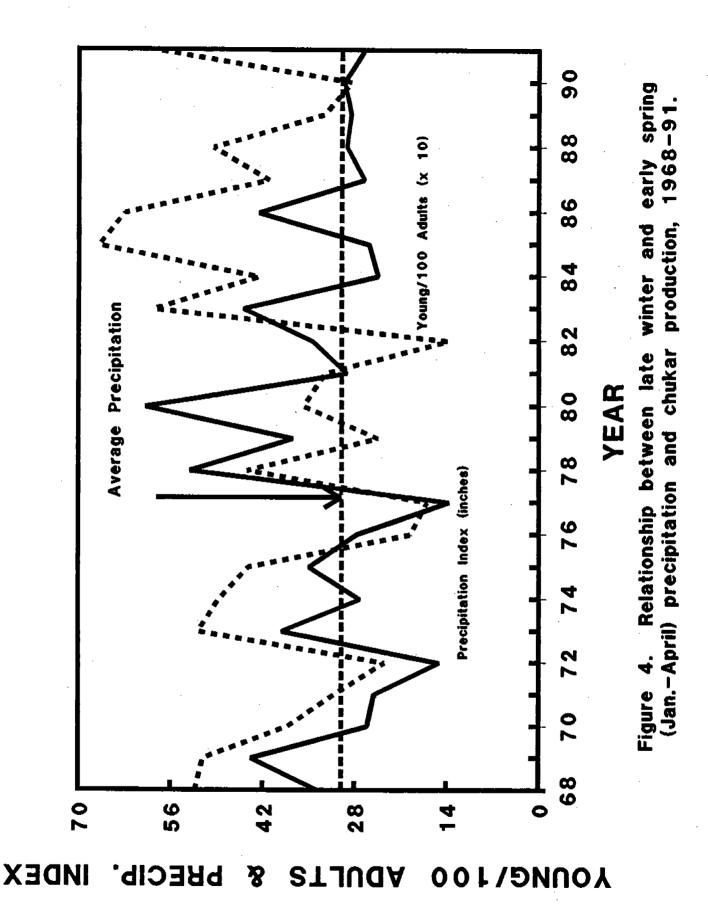
|                        | <u>1991</u> | <u>Percent</u><br>1990 | <u>change from</u><br><u>Average</u> |
|------------------------|-------------|------------------------|--------------------------------------|
| Chukar hunters         | 10,577      | -6                     | -25                                  |
| Chukars harvested      | 24,355      | -8                     | -39                                  |
| Hunter-days afield     | 34,010      | -12                    | -20                                  |
| Chukars per hunter-day | 0.72        | +4                     | -21                                  |
| Chukars per hunter     | 2,30        | -3                     | -16                                  |

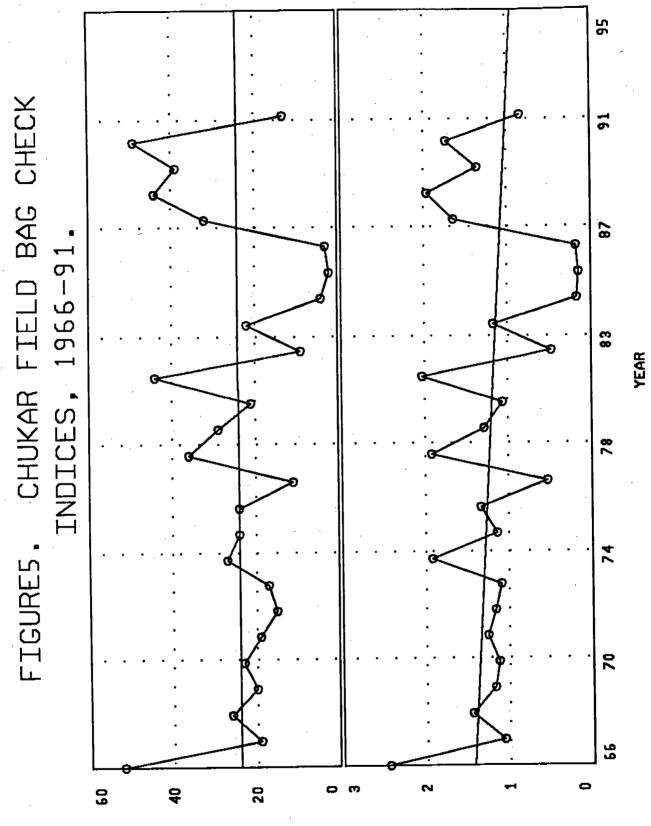




(000'L X) ΙΑΤΟΤ







**ЯТИН\UH**Э

Chukar hunters and hunter effort decreased slightly from 1990. Chukars per hunter-day increased slightly from 1990, but remains 21 percent below the statewide average. Total harvest declined 8 percent. The Central Region again had the highest percentage of the harvest (50%) in 1991, and also had the highest percentage of hunter pressure (46%).

#### Field Bag Checks

A summary of field bag check data for 1991 is shown in Table 10. The hunter success trend determined by field bag checks since 1986 is shown in Table 11 and Figure 5. Data for the 1991 season compared to 1990 and the 10-year (1981-90) average follow:

|  |             | Percent     | change from |
|--|-------------|-------------|-------------|
|  | <u>1991</u> | <u>1990</u> | Average     |
| Total hunters checked                              | 27          | -37         | -89         |
| Total hours hunted                                 | 145         | -6          | -87         |
| Chukars per hunter (complete hunts)                | 0.70        | -51         | -23         |
| Chukars bagged per 100 hours<br>(complete hunts)   | 13          | -73         | -49         |
| Average hours per hunter-day                       |             |             |             |
| (complete hunts)                                   | 5.37        | +85         | +26         |
| Hours hunted per chukar bagged<br>(complete hunts) | 7.63        | +282        | -48         |

Field bag checks indicated hunter success on opening weekend was down from 1990 and was below average (23%). This may be the result of higher vulnerability of birds as they congregated around water sources. However, sample sizes were extremely small.

| During and          |      |            |       |       |          |              |            |          |                 |                |         |         |                 |         |            |         |
|---------------------|------|------------|-------|-------|----------|--------------|------------|----------|-----------------|----------------|---------|---------|-----------------|---------|------------|---------|
|                     |      | Broods     |       | Mean  | & Adults |              | Adults w/o | Total    | Total           | Young/.        | Vehicle |         | Hours of Effort | LEffort |            | Birds/  |
| County              | *    | Adults     | Уонлд | Brood | Adults   | Adults Young | Young      | Adults   | Young           | 100 Adults     | Miles   | Vehicle | Horse           | Walk    | Total      | 100 IIr |
| Northern Region     |      |            |       |       |          |              | -          |          |                 |                |         |         |                 |         |            |         |
| Box Elder           | ľ    | _ <b>1</b> | 1     | :     | ł        | ł            | ١          | 1        | ł               | 1              | ł       | 1       | <b>1</b>        | 1       | 1          | ł       |
|                     |      | 1          | ł     | :     | ł        | ;            | ļ          | 1        | <b>;</b>        | 1              | I       | I       | 1               | ł       | 1          | ł       |
| ache                | :    | ł          | I     |       |          |              |            | :        | 1               | I              | ۱       | ı       | 1               | I       | ı          | 1       |
| Davis               | ł    | ł          | 1     | ł     | 1        | 1            | ł          |          |                 |                |         |         | ;               | ł       | 1          | 1       |
| Morgan              | 1    | ł          | 1     | ı     | ł        | ł            | 1          | 1        | :               | <b>I</b>       | 1       | ł       | ł               | I       |            |         |
| Rich                | 1    | ;          | ł     | ł     | 1        | 1            | ł          | ł        | :               | ł              | ł       | ł       | 1               | 1       | ł          | ł       |
| Summit              | 1    | I          | 1     | 1     | ;        | 1            | :          | ł        | 1               | 1              | ł       | ł       | 1               | ł       | 1          | 1       |
|                     |      |            |       |       | ł        | 1            | ;          | 1        | 1               | ł              | ł       | 1       | ;               | ł       | . 1        | I       |
| Weber               | 1    | :          | '     | •     |          |              |            |          |                 |                |         |         |                 | ;       |            | 1       |
| REGIONAL TOTALS     | 1    | ;          | :     | ;     | 1        | :            | ;          | :        |                 | 1              |         | :       | •               | •       |            |         |
| Central Region      |      |            |       |       |          |              |            |          |                 |                |         |         |                 |         | ı          | 00.0    |
| - daul              | 1    | ł          | 1     | ł     | ę        | П            | ł          | •        | Π               | 367            | 102     | r-      | ł               | ł       | Ŀ          | 2007    |
| Salt Laka           | I    | 1          | 1     | Í     | ł        | 1            | 1          | 1        | 1               | I              | I       | 1       | ۱               | I       | ;          | 1       |
|                     | -    | -          | 10    | 10.00 | 1        | ł            | I          | Ţ        | 10              | 1,000          | 24      | ~1      | 1               | ł       | 17         | 713     |
| Surpere             | • •  |            | ; ;   | 05 5  | "        |              | _          | ŀ        | 31              | 443            | 160     | ٢       | ł               |         | ×          | 475     |
| 4)                  | • •  | • •        | 1 :   |       | •        |              | . 1        | -        | 12              | 1.200          | 25      | 1       | 1               | :       | -          | 1,300   |
| Utah                | -    | -          | 4     | 0.44  | ŀ        |              | ;          | . 1      | l               | <u>,</u> 1     | 1       | 1       | 1               | ł       | ł          | ł       |
| Wasatch             | ,  - | ,   ,      | :     |       |          |              | -          | 5        | . 13            | 113            | 311     | 11      | 1               | -       | 8          | 434     |
| REGIONAL TOTALS     | •    | -          | 4     | 1.33  |          | 107          |            |          |                 | 200            |         |         |                 |         |            |         |
| Southern Region     |      |            |       |       |          |              |            |          |                 |                |         |         |                 |         | 1          | I       |
| Reaver              | ł    | I          | I     | 1     | ;        | I            | 1          | 1        | ;               | I <sup>.</sup> | 1       | 1       | 1               |         |            |         |
| Garfield            | 1    | l<br>.'    | ł     | 4.    | ł        | 1            | ł          | 1        | :               | ;              | 1       | I       | ł               | 1       | ļ          | ł       |
| lron .              | 1    | ł          | I     | t     | I        | 1            | 1          | ł        | 1               | I              | 1       | Ľ       | 1               | 1       | 1          | ļ       |
| Kane                | ł    | 1          | 1     | 1     | ١        | I            | ł          | 1        | 1               | 1              | 1       | I       | ł               | ŀ       | I,         | 1       |
| Millard             | 1    | I          | 1     | 1     | 1        | 1            | ı          | ł        | 1               | ł              | ;       | 1       | <b>1</b>        | I       | 1          | ł       |
| Piute               | ł    | ł          | 1     | 1     | ł        | I            | ł          | 1        | 1               | ł              | ł       | 1       | ł               | l       | 1          | l       |
| Sevier              | ł    | I          | 1     | 1     | 1        | :            | <b>I</b>   | <b>1</b> | ł               | ł              | I       | I       | 1               | 1       | I          | ł       |
| Washington          | 1    | ł          | I     | I     | ł        | 1            | ŀ          | Ì        | ł               | 1              | •       | :       | ł               | 1       | 1          | ł       |
| Wavne               | 1    | 1          | 1     | 1     | 1        | 1            | 1          | ;        | 1               | 1              | ,       | 1       | 1               | 1       | :          | •       |
| REGIONAL TOTALS     | 1    | 1          | :     | ł     | 1        | 1            | 1          | 1        | :               | :              | +       | t       | 1               |         | ł          | 1       |
| Northeastern Region |      |            |       |       |          |              |            |          |                 |                |         |         |                 |         |            |         |
| Daggett             | 1    | 1          | ł     | Í     | <b>I</b> | ł            | I          | ł        | :               | 1              | 1       | I       | 1               | 1       | I          | 1       |
| Duchesne            | ł    | ł          | ł     | 1     | ł        | ł            |            | ;        | 1               | :              | 1       | L.      | 1               | 1       | 1          | 1       |
| tintah              | ł    | ł          | ł     | 1     | :        | 1            | :          | :        | - <b>1</b><br>- | 1              | 1       | Ŧ       | 1               | 1       | 1          | 1       |
| REGIONAL TOTALS     | 1    | :          | 1     | 1     | 1        | 1            | 1          | 1        | :               | :              |         | 1       | 1               | ;       | -1         | 1       |
| Southeastern Region |      |            |       |       |          |              |            |          |                 |                |         |         |                 | ·       |            |         |
| Carhon              | I    | ł          | ł     | I     | I        | I            | 1          | 1        | ł               | :              | 1       |         | 1               | ;       | •          | 1       |
| Етегу               | I    | ł          | 1     | I     | l        | 1            | I          | 1        | 1               | 1              | \$      | 1       | :               | 1 -     | 4          | ;       |
| Grand               | I    | ł          | 1     | 1     | ł        | ł            | 1          | 1<br>,   | 1               | :              | 120     | Q       | 1               | • 1     | ¢          | I       |
| San Inan            | I    | I          | 1     | ł     | 1        | I            | 1          | I        | I               | 1              | 8       | 1       | 1               | -       | ~i         | 1       |
| REGIONAL, TOTALS    | 1    | 1          | 1     | 1     | 1        | 1            | 1          | ı        | 1               | 1              | 225     | 10      | 1               | -       | Ξ          | 1       |
|                     |      |            |       |       |          |              | .          |          | 0               |                | 512     | 77      | ł               | •       | <b>)</b> 0 | 267     |

| - 2         |
|-------------|
|             |
| 20.00       |
| - 2         |
| - 4         |
| - 6         |
|             |
|             |
|             |
|             |
| - 2         |
|             |
|             |
|             |
|             |
|             |
| ۰.          |
| ē           |
| - 2         |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
|             |
| - 5         |
| ļ           |
| -           |
| - 1         |
|             |
|             |
|             |
| - 1         |
| La Contra C |
| Л           |
| 6           |
| -           |
|             |
|             |
| ¢ ~17       |
| •           |
| - 4         |
|             |
| - 14        |

| Dominant and        |      |          |      |       |            |       |             |      |       |      |                |         |
|---------------------|------|----------|------|-------|------------|-------|-------------|------|-------|------|----------------|---------|
|                     | 1001 | 1001     | 1001 | 1001  | 1006       | 1007  | Year        | 0001 | 0001  | 0000 |                | Average |
| Northern Region     | 10/1 | 1204     | 1703 | 1 Jut | CUAL       | 1960  | INI         | 1988 | 19,89 | 1996 | 1661           | 06-1861 |
| Box Pader           | 126  | 120      | ł    | ;     | 4 200      | . 002 | 102         | 116  |       |      |                |         |
| المرابه             |      |          | 90,  | ł     | 00712      | -     | 010         |      | 1     | 1    | I              |         |
| Darie               | 1    | : •      | 1100 | 1     | :          | 1     | (ISN        | 300  | ;     | 848  | ł              |         |
| SIAPO               | 50   | ŀ        | ł    | ł     | ł          | 1     | 24          | 1    | :     | 400  | ı <sub>.</sub> |         |
| Мограц              | 1    | 1        | 750  | I     | ;          | ł     | ł           | ;    | I     | ł    | ;              |         |
| Rich                | 1    | :        | I    | ł     | 1          | 1     | 1           |      | ł     | ;    | ł              |         |
| Summit              | ł    | 750      | ;    | 1     | 1          | ł     | ;           | :    | :     | 1    | I              |         |
| Weber               | 1    | :        | 1    | I     | 1          | :     | 1           | 1    | ł     | ł    |                |         |
| REGIONAL TOTALS     | 101  | 17       | 362  |       | 1 200      | CEN   | 115         | 5    |       | 107  | 1              | . 002   |
| Central Region      | 2    | 5        | 707  | :     | 11177**    | nic   | C71         |      | :     | 6/0  | -              | 1,092   |
| Juab                | 315  | 600      | :    | 800   | I          | 710   | 600<br>6    | 462  | 120   | 587  | 167            |         |
| Salt Lake           | 400  | 5        |      |       |            |       | <b>A</b> 00 | 4    | 071   | 100  | 100            |         |
| Connede             |      | 20<br>99 | I    | 1     | I          | 1     | ł           | ł    | ;     | 1    | 1              |         |
|                     | 1    | 400      | ł    | 1     | 1          | 1     | ;           | J    | I     | 1    | 1,000          |         |
| Tonele              | 359  | 585      | ł    | 436   | 550        | 566   | 535         | 484  | 263   | 157  | 443            |         |
| Utah                | 1    | ı        | 1    | ł     | 300        | 1     | 875         | ł    | 472   | ł    | 1,200          |         |
| Wasatch             | 1    | ł        | 800  | 1     | 1          | ł     | 1           | I    | 1     | 1    | ุ่า            |         |
| REGIONAL TOTALS     | 348  | 512      | 800  | 481   | 457        | 642   | 591         | 468  | 240   | 266  | 115            | 481     |
| Southern Region     |      |          |      |       |            |       |             |      |       |      |                |         |
| Beaver              | ı    | ł        | 1    | 1     | ł          | ſ     | ı           | ı    | 1     | ł    | 1              |         |
| Garfield            | ı    | 122      | ł    | ł     | ł          | 125   | 1           | 1    | 1     | 1    | 1              |         |
| Iron                | I    | ł        | ł    | I     | 1          | I     | 1           | 1    | 1     | ;    | 1              |         |
| Kane                | I    | ı        | 1    | ı     | 1          | I     | ł           | 1    | I     | ı    | 1              |         |
| Millard             | 200  | :        | 1    | 1     | ł          | 1     | 1           | 550  | 927   | ;    | 1              |         |
| Piute               | 938  | 642      | ł    | ì     | 1          | I     | 370         | ;    | :     | ;    | I              |         |
| Sevier              | 800  | :        | I    | I     | . <b>I</b> | ł     | 1           | :    | 1     | :    | ;              |         |
| Washington          | 1    | ł        | ł    | 1     | I          | I     | 1           | 1    | 1     | :    | 1              |         |
| Wayne               | 1    | 600      | 737  | 1     | ł          | ı     | I           | 1    | 1     | 1    | 1              |         |
| REGIONAL TOTALS     | 410  | 389      | 737  |       | •          | 125   | 370         | 550  | 927   |      | 1              | S01     |
| Northeastern Region |      |          |      |       |            |       |             |      |       |      |                |         |
| Daggelt             | ł    | 1        | ı    | ı     | :          | r     | 0           | 1    |       | :    | 1              |         |
| Duchesne            | 163  | ł        | !    | 1     | ł          | ł     | 0           | ;    | ł     | :    | 1              |         |
| Uintah              | ŀ    | t        | ł    | 1     | :          | 1     | 267         | 1    | i     | 1    | 1              |         |
| REGIONAL TOTALS     | 78   |          |      | 1     |            | 1     | 267         | 1    | 1     | 1    | :              | 173     |
| Southeastern Region |      |          |      |       |            |       |             |      |       |      |                |         |
| Carbon              | :    | ł        | 1    | 359   | <b>I</b>   | 1,300 | 1,014       | 600  | 1     | 1    | I              |         |
| Emery               | ł    | 220      | 1    | ł     | ;          | ł     | 500         |      | ļ     | 243  | 1              |         |
| Grand               | 577  | 518      | 617  | 775   | 730        | 730   | 573         | 621  | 64    | 0    | :              |         |
| San Juan            | 533  | 1        | ł    | 337   | ł          | I     | ;           | 1    | 200   | :    | I              |         |
| REGIONAL TOTALS     | 575  | 426      | 617  | 392   | 408        | 287   | 631         | 620  | 93    | 131  | 1              | 418     |
| STATE TOTALS        | 326  | 138      | 586  | 426   | 670        | 631   | 411         | 496  | 327   | 285  | 533            | 430     |

| Donion and           |            |       |       |      |        | Year   |       |      |                |       |       |         |
|----------------------|------------|-------|-------|------|--------|--------|-------|------|----------------|-------|-------|---------|
| region and<br>County | 1981       | 1982  | 1983  | 1984 | 1985   | 1986   | 1987  | 1988 | 1989           | 1990  | 1991  | 1981-90 |
| County<br>           |            |       |       |      |        |        |       |      |                |       |       |         |
| Northern Kegion      |            | 5     | 10.00 |      | 0.00   | ;      | 8.50  | 7.50 | 1              | ۱     | I,    |         |
| Box Elder            | 1          | 5.5   | 01.21 | 1    |        |        |       | 6 00 | 1              | 13.50 | I     |         |
| Cache                | 1          | 1     | 6.00  | ;    | ł      | I      | 1     | 00.0 | 00.11          | 00 61 |       |         |
| Davis                | 1          | 1     | ١     | ł    | 1      | ł      | 1     | í    | 14.00          | 14.41 | ł     |         |
| Morean               | :          | 1     | 7.50  | 1    | ł      | 1      |       | 1    | 00.7           | I     | 1     |         |
|                      |            | 1     | ١     | 1    | ł      | ł      | 1     | ł    | 1              | ١     | ł     |         |
| Kich                 | :          |       |       |      |        |        | 1     | I    | ì              | ł     | I     |         |
| Summit               | ł          | 7.50  | 1     | ;    | ۰<br>۱ | ł      | l     |      |                | ł     | 1     |         |
| Weber                | ł          | 1     | 1     | ;    | ;      | :      | 1     |      |                | 44.44 |       | 010     |
| RECIONAL TOTALS      | 8.33       | 3.00  | 7.00  | ;    | 9.00   | ;      | 8.50  | 7.00 | 10.50          | 13.00 | •     | 67-0    |
| Control Region       |            |       |       |      |        |        |       |      |                |       |       |         |
|                      | 2 45       | 6.00  | 1     | 8.00 | ł      | 7.45   | 8.00  | 6.75 | 5.50           | 4.30  | ł     |         |
| Juab                 | <b>6</b>   |       |       |      |        | ł      | ł     | ۱    | 1              | ł     | ł     |         |
| Salt Lake            | 4.00       | ł     | 1     | I    | ł      |        |       |      |                | 1     | 10.00 |         |
| Sannete              | 1          | 1     | ł     | ł    | I      | 1      | I     | :    | ı <sup>‡</sup> |       |       |         |
|                      | 8.92       | 10.60 |       | 6.00 | 8.43   | 7,86   | 8.00  | 7.43 | 6.40           | 5.40  | 00.0  |         |
|                      |            | 1     | ۱     | ;    | 10.00  | ł      | 10.50 | 1    | 3.00           | I     | 12.00 |         |
|                      |            |       |       | 1    | ł      | 1      | ļ     | 1    | I              | 1     | 1     |         |
| Wasatch              | 1          |       |       | 00 \ | 67.0   | 7 60   | 8.71  | 7 07 | 5.00           | 3.60  | 7.33  | 7.14    |
| REGIONAL TOTALS      | 7.13       | 10.14 | 1     | 0.00 | 60.0   | Care I | 2400  |      |                |       |       |         |
| Southern Region      |            |       |       |      |        |        |       |      | ł              | ł     | 1     |         |
| ßeaver               | ł          | 1     | 1     | 1    | ł      | ١      | 1     | 1    | 1              | 1     |       |         |
| Garfield             | 1          | ł     | ł     |      | 1      | 2.00   | ;     | 1    | 1              | ;     | I     |         |
| lean                 | ;          | ł     | ı     | 1    | :      | 1      | 1     | I    | 1              | I     | ł     |         |
|                      | :          | 1     | 1     | 1    | ł      | ł      | 1     | ł    | I              | 1     | ł     |         |
|                      |            | 1     | ;     | :    | 1      | I      | 1     | 7.75 | 7.50           | ł     | ł     |         |
| Millard              |            | 00 0  |       |      | ł      | ł      | 5.00  | ł    | ł              | I     | ;     |         |
| Piute .              | 05.01      | 00.0  | 1     | l    |        |        |       | 1    | I              | 1     | 1     |         |
| Sevier               | 8.00       | :     | I     | ł    | :      | ł      | l     |      |                | I     | 1     |         |
| Washington           | I          | ł     | I     | 1    | I      | ł      | 1     | Ι.   | I              |       | . 1   |         |
| Wavne                | ł          | 9.00  | ł     | ,    | 1      | ;      | ;     | 1    |                |       |       | 7 20    |
| REGIONAL TOTALS      | 9.67       | 7.00  | 1     | 1    | :      | 1      | 5.00  | 7.75 | 7.50           | :     | 1     | 00.1    |
| Northeastern Region  |            |       |       |      |        |        |       |      |                |       |       |         |
| Daggett              | 00.6       | 1     | 1     | ł    | ł      | 1      | ;     | :    | 1              | I     | 1     |         |
|                      | 1          | ;     | ł     | :    | I      | ł      | ł     | 1    | ł              | t     | 1     |         |
|                      | 1          | 1     | 10.00 | ł    | 1      | 1      | 10.00 | ;    | ;              | ;     | 1     |         |
|                      | 000        | '     | 10.00 | 1    | 1      | 1      | 10.00 | 1    | 1              | ,     | :     | 6.33    |
| KERTUNAL TUTALO      |            |       |       |      |        |        |       |      |                |       |       |         |
| Southeastern Kegunt  |            |       | ł     | 5.50 | 1      | 12.50  | 9.67  | 6.00 | ł              | ł     | 1     | 5       |
| Carbon               | <b>I</b> . |       |       |      | 5.00   | 1      | 5.00  | . 1  | ł              | 8.50  | 1     |         |
| Emery                |            | :     | 16.0  |      | 00 8   | ł      | 8 57  | 9.11 | 1.00           | I     | :     |         |
| Grand                | ł          | 06.11 | C7.8  | C1-1 | A.V    | ł      | 2     |      | 4 00           | I     | ;     |         |
| San Juan             | 1          | 5.33  | •     |      | :      | 1      | 1 0   | 200  | 02 6           | 0 50  |       | 8.09    |
| REGIONAL TOTALS      | 1          | 11.30 | 8.25  | 1.00 | 7.67   | 10.40  | C7.8  | 6.9  | 0.0.7          |       | 202   | 1 53    |
| CONTROL OF CONTROL   | 0 13       | 04.0  | 8 00  | 6.01 | 8 46   | 8.13   | 7.93  | ×.00 | 5.05           | 00.0  |       | (C) 1   |

Table 4. Trend of chukars observed per 100 hours, 1981-91

|                     |       |              |            |       |      |       |            |          |       |        |       | AVELAN  |
|---------------------|-------|--------------|------------|-------|------|-------|------------|----------|-------|--------|-------|---------|
| County              | 1981  | 1982         | 1983       | 1984  | 1985 | 1986  | 1987       | 1988     | 1000  | 1900   | 1001  | 1001    |
| Northern Region     |       |              |            |       |      |       |            | 1700     | 1202  | 1770   | 1661  | 06-1961 |
| Box Elder           | 645   | 8            | ł          | ;     | 239  | 168   | 40         | 326      | 1     |        |       |         |
| Cache               | ;     | ł            | 700        | ;     | 1    | 1     | 2          | 2        | I     | 101    | 1     |         |
| Davis               | 810   | 1,127        | 100        | 1     | :    | 22    | 313        | 3 99     | 150   | .,<br> | :     |         |
| Могдан              | ;     | . :          | 850        |       | 1    |       | 2 · · ·    |          | 002   |        | :     |         |
| Rich                | 1     |              |            |       |      | ł     | 1          | 1        | M     | 1      | I     |         |
| Summit              | 1     | I            | ł          | 1     | I    | 1     | I          | I        | t     | t      | ł     |         |
|                     | ł     | ł            | 1          | :     | 1    | ł     | 1          | :        | ł     | ;      | 1     |         |
| Weber               | ;     | '            | 1          | ;     | 1    | ł     | 1          | 1        | I     | 1      | 1     |         |
| REGIONAL TOTALS     | 502   | 479          | 227        | 1     | 155  | 102   | 91         | Ξ        | 135   | 295    | '     | 122     |
| Central Region      |       |              |            |       |      |       |            |          |       |        |       |         |
| Juab                | 692   | 363          | :          | 200   | 1    | 2.611 | 850        | 913      | 500   | 220    | 000   |         |
| Salt Lake           | 500   | <del>(</del> | 1          | 1     | I    | 1     | 1          | (        |       | Ì      |       |         |
| Sanpete             | 1     | <b>R</b> S7  | ł          | :     | I    | ;     | l          | }        | ł     | 1      | 1     |         |
| Tonete              | 985   | 1,013        | :          | 441   | 197  | 1 046 | 1 133      | : 5      |       | 1      | 8     |         |
| Utah                | ' 1   | 8            | ;          |       | 570  |       | 1 050      | (CC)     | 2 100 | 202    | C/ F  |         |
| Wasatch             |       | 2            |            | ļ     | 010  | 1     | UCKI       | ;        | 2,100 | 1      | 1,300 |         |
| DECTONAL TOTAL      |       | :            | ı          | φ.    | ;    | ;     | ;          | 1        | :     | :      | 1     |         |
| Southern Region     | 771   | eic          | 104        | 167   | 542  | 1,424 | 844        | 822      | 623   | 281    | 434   | 629     |
| Beaver              | 1     | ı            | ł          | ł     | ;    | 1     | 1          |          |       |        |       |         |
| Garfield            | I     | <b>S00</b>   | 1          | ł     | 1    | ;     |            | I        |       | ł      | I     |         |
| lron                | ł     | ;            | :          | ;     | :    | ł     |            | <b> </b> | I     | ł      | I     |         |
| Kane                | I     | ł            | ;          | :     | :    | 1     |            | .        | I     | 1      | 1     |         |
| Millard             | 1,467 | 1            | 1          | 1     | 1    | 1     |            | 1 496    | 1 506 | Ļ      | I     |         |
| Piute               | 1,660 | 433          | 1          | I     | 1    | 1     | 1 567      | 1        |       | I      | I     | ,       |
| Sevier              | 906   | 17           | :          | :     | ł    |       |            |          | 1     | :      | ł     |         |
| Washington          | .1    | 1            | I          | ł     |      |       | I          | ł        | ł     | I      | 1     |         |
| Wayne               | 1     | 700          | 3.350      | I     | I    |       | I          | I        | ;     | 1      | i     |         |
| REGIONAL TOTALS     | 1.436 | 266          | 3.350      |       |      |       | 1 567      | 1 405    |       | •      | 1     |         |
| Northeastern Region |       |              |            |       |      |       | Threat     | 1440     | 14220 | ,      | •     | 110.1   |
| Daggett             | ;     | 1            | I          | I     | ł    | ;     |            |          |       |        |       |         |
| Duchesne            | 300   | 790          | 1          | · 1   |      | 1     | ł          | I        | 1     | :      | 1     |         |
| Uintah              | 614   | 454          | <b>3</b> 8 | 1     |      |       | 0ek        | ł        | :     | 1      | 1     |         |
| REGIONAL TOTALS     | 533   | 348          | 17         |       |      |       | 141        | •        | :     | •      | 1     | 949     |
| Southeastern Region |       |              |            |       |      |       | 147        | :        | :     | •      | 1     | 730     |
| Carbon              | ł     | 1            | 1          | 420   | ł    | I     | 7,800      | 350      | 1     | ı      | ł     |         |
| Emery               | ł     | ;            | ł          | ı     | 833  | ł     | 171        | 1        | ł     | 480    | ;     |         |
| Grand               | 2,891 | 1,167        | 2,871      | 291   | 424  | 2,075 | 1,167      | 3,983    | 240   | 67     | 1     |         |
| San Juan            | 1,120 | ;            | 1          | 1,750 | ;    | ł     | , <b>I</b> | 1        | 225   | 1      | ;     |         |
| REGIONAL TOTALS     | 2,338 | 1,578        | 2,871      | 858   | 530  | 2.075 | 1,335      | 3.293    | 225   | 150    |       | 1 636   |
|                     |       |              |            |       |      |       |            |          |       |        | 1     |         |

| EGION AND<br>COUNTY | SAMPLE<br>SIZE* | HUNTER-DAYS<br>AFIELD | BIRDS<br>BAGGED | BIRDS PER<br>HUNTER-DAY | * OF<br>PRESSURE | <pre>% OF HARVEST</pre> |
|---------------------|-----------------|-----------------------|-----------------|-------------------------|------------------|-------------------------|
| ORTHERN REGION      |                 | ,                     |                 |                         | 01 50            | 23.43                   |
| BOX ELDER           | 139             | 7,323                 | 5,706           | 0.78                    | 21.53            | 1.93                    |
| CACHE               | 32              | 1,269                 | 469             | 0.37                    | 3.73             |                         |
| DAVIS               | 14              | 504                   | 382             | 0.76                    | 1.48             | 1.57                    |
| MORGAN              | 16              | 608                   | 330             | 0.54                    | 1.79             | 1.36                    |
| RICH                | 9               | 487                   | 156             | 0.32                    | 1.43             | 0.64                    |
| SUMMIT              | 4               | 243                   | 34              | 0.14                    | 0.72             | 0.14                    |
| WEBER               | 13              | 556                   | 469             | 0.84                    | 1.64             | 1.93                    |
| REGIONAL TOTALS     | 227             | 10,994                | 7,550           | 0.69                    | 32.33            | 31.00                   |
| ENTRAL REGION       |                 |                       |                 |                         |                  |                         |
|                     | 44              | 2,400                 | 2,087           | 0.87                    | 7.06             | 8.57                    |
| JUAB                | 12              | 434                   | 730             | 1.68                    | 1.28             | 3.00                    |
| SALT LAKE           | 33              | 1,791                 | 1,478           | 0.83                    | 5.27             | 6.07                    |
| SANPETE             |                 | 5,340                 | 3,722           | 0.70                    | 15.70            | 15.29                   |
| TOOELE              | . 106           |                       | 4,105           | 0.79                    | 15,24            | 16.86                   |
| UTAH                | 102             | 5,184<br>452          | 226             | 0.50                    | 1.33             | 0.93                    |
| WASATCH             | 6               | 494<br>               |                 |                         |                  |                         |
| REGIONAL TOTALS     | 303             | 15,604                | 12,351          | 0.79                    | 45.88            | 50.71<br>               |
| SOUTHERN REGION     |                 |                       |                 | 0.67                    | 3.22             | 3.00                    |
| BEAVER              | 11              | 1,095                 | 730             | 0.67                    | 0.10             | 0.36                    |
| GARFIELD            | 2               | 34                    | 86              | 2.50                    |                  | 0.14                    |
| IRON                | 2               | 191                   | 34              | 0.18                    | 0.56             |                         |
| KANE                | l               | 34                    | 52              | 1.50                    | 0.10             | 0.21                    |
| MILLARD             | 35              | 1,426                 | 782             | 0.55                    | 4.19             | 3.21                    |
| PIUTE               | 8               | 243                   | 243             | 1.00                    | 0.72             | 1.00                    |
| SEVIER              | 42              | 1,948                 | 1,409           | 0.72                    | 5.73             | 5.79                    |
| WASHINGTON          | 1               | 69                    | · 0             | 0.00                    | 0.20             | 0.00                    |
| WAYNE               | 2               | 86                    | 156             | 1.80                    | 0.26             | 0.64                    |
|                     | 104             | 5,131                 | 3,496           | 0.68                    | 15.09            | 14.36                   |
| REGIONAL TOTALS     |                 |                       |                 |                         |                  |                         |
| NORTHEASTERN REG    |                 | 0                     | O               | 0.00                    | 0.00             | 0.00                    |
| DAGGETT             | · 0             | 539                   | 104             | 0.19                    | 1.59             | 0.43                    |
| DUCHESNE            | 9<br>7          | 243                   | 191             | 0.79                    | 0.72             | 0.79                    |
| UINTAH              |                 |                       |                 |                         |                  |                         |
| REGIONAL TOTALS     | 16              | · 782                 | 295<br><b></b>  | 0.38                    | 2.30             | 1.21                    |
| SOUTHEASTERN RE     |                 |                       | 200             | 0.46                    | 1.33             | 0.86                    |
| CARBON              | 10              | 452                   | 208             | 0.46                    | 1.89             | 1.14                    |
| EMERY               | 14              | 643                   | 278             | 0.43                    | 0.66             | 0.36                    |
| GRAND               | 6               |                       | 86              |                         |                  |                         |
| SAN JUAN            | 1               | 173                   | 86              | 0.50                    | 0.51             | 0.36                    |
| REGIONAL TOTALS     | 31              | 1,496                 | 661             | 0.44                    | 4.40             | 2.71                    |
| UNKNOWN             | 0               | 0                     | 0               |                         | 0.00             | 0.00                    |
| STATE TOTALS        | - <b></b>       | 34,010                | 24,355          | 0.72                    | 100.00           | 100.00                  |

Table 5. Summary of chukar hunter success and distribution of harvest and hunting pressure by region and county, 1991.

\*Total hunter trips from questionnaire returns.

| Table 6. Su<br>19 | mmary of<br>84-91. | chukars | bagged | per | hunter-day | by | region | and | county, |  |
|-------------------|--------------------|---------|--------|-----|------------|----|--------|-----|---------|--|
|-------------------|--------------------|---------|--------|-----|------------|----|--------|-----|---------|--|

| Region and            | <u></u>  |          |             |      | Year     | · · · · · · · · · · · · · · · · · · · |          |                                       |
|-----------------------|----------|----------|-------------|------|----------|---------------------------------------|----------|---------------------------------------|
| County                | 1984     | 1985     | 1986        | 1987 | 1988     | 1989                                  | 1990     | 1991                                  |
| Northern Region       |          | <u> </u> |             |      | <u> </u> | 1909                                  |          | 1291                                  |
| Box Elder             | 0.30     | 0.55     | 0.49        | 0.62 | 0.63     | 0.54                                  | 0.89     | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ |
| Cache                 | 0.43     | 0.13     | 0.14        | 0.85 | 0.58     | 0.73                                  | 0.89     | 0.78                                  |
| Davis                 | 0.53     | 0.43     | 0.50        | 0.20 | 1.65     | 0.42                                  |          | 0.37                                  |
| Morgan                | 0.10     | 0.30     | 0.00        | 1.33 |          |                                       | 0.79     | 0.76                                  |
| Rich                  | 0.80     | 0.00     | 0.00        | 1.00 | 1.08     | 0.56                                  | 0.71     | 0.54                                  |
| Summit                | 0.67     | 0.00     | 0.00        | 1.25 | 1.43     | 0.70                                  | 1.67     | 0.32                                  |
| Weber                 | 2,46     | 0.18     | 0.00        |      | 0.68     | 0.20                                  | 2.14     | 0.14                                  |
| REGIONAL TOTALS       | 0.41     | 0.46     |             | 0.44 | 0.45     | 1.07                                  | 0.73     | 0.84                                  |
| <u>Central Region</u> | <u> </u> | 0.40     | 0.39        | 0.64 | 0.69     | 0.58                                  | 0.82     | 0.69                                  |
| Juab                  | 0.92     | 1 6 7    | 0 07        |      |          |                                       |          |                                       |
| Salt Lake             |          | 1.63     | 0.87        | 1.10 | 0.90     | 0.66                                  | 0.73     | 0.87                                  |
|                       | 1.59     | 0.96     | 1.08        | 1.16 | 0.69     | 1.05                                  | 1.16     | 1.68                                  |
| Sanpete               | 1.14     | 1.28     | 0.88        | 0.58 | 1.26     | 1.06                                  | 1.35     | 0.83                                  |
| Tooele                | 0.95     | 1.12     | 0.90        | 0.84 | 0.82     | 0.69                                  | 0.77     | 0.70                                  |
| Utah                  | 0.62     | 0.71     | 0.65        | 0.71 | 0.64     | 0.78                                  | 0.67     | 0.79                                  |
| Wasatch               | 0.07     | 0.07     | 0.00        | 0.83 | 1.00     | 0.60                                  | 0.67     | 0.50                                  |
| REGIONAL TOTALS       | 0.88     | 1.06     | 0.84        | 0.86 | 0.83     | 0.78                                  | 0.81     | 0.79                                  |
| Southern Region       |          |          |             |      |          |                                       |          |                                       |
| Beaver                | 1.60     | 0.00     | 0.13        | 0.63 | 0.35     | 0.50                                  | 0.42     | 0.67                                  |
| Garfield              | 1.83     | 0.00     | 0.33        | 0.40 | 1.13     | 0.63                                  | 0.00     | 2.50                                  |
| Iron                  | 2.00     | 0.00     | 0.00        | 0.00 | 0.00     | 0.00                                  | 0.25     | 0.18                                  |
| Kane                  | 0.67     | 0.00     | 0.00        | 0.00 | 0.00     | 0.00                                  | 0.00     | 1.50                                  |
| Millard               | 0.80     | 1.55     | 1.88        | 1.09 | 0.95     | 0.57                                  | 0.62     | 0.55                                  |
| Piute                 | 0.50     | 0.71     | 0.13        | 0.81 | 0.30     | 0.54                                  | 0.29     | 1.00                                  |
| Sevier                | 0.37     | 0.21     | 0.48        | 0.57 | 0.67     | 0.47                                  | 0.51     | 0.72                                  |
| Washington            | 0.50     | 0.00     | 0.00        | 0.00 | 0.00     | 0.00                                  | 0.00     | 0.00                                  |
| Wayne                 | 0        | 1.00     | 0.00        | 2.00 | 1.83     | 0.27                                  |          |                                       |
| REGIONAL TOTALS       | 0.63     | 0.72     | 0.92        | 0.82 | 0.72     |                                       | 0.00     | 1.80                                  |
| Northeastern Region   |          |          |             | 0.02 | 0.72     | 0.50                                  | 0.45     | 0,68                                  |
| Daggett               |          | 0.00     | 0.00        | 3.00 | 0 00     | 0 00                                  | <u> </u> |                                       |
| Duchesne              | 0.22     | 2.00     | 0.00        | 0.20 | 0.00     | 0.00                                  | 0.00     | 0.00                                  |
| Uintah                | 1.45     | 1.00     |             |      | 2.12     | 0.73 .                                | 0.27     | 0.19                                  |
| REGIONAL TOTALS       | 0.90     |          | <u>0.00</u> | 1.68 | 0.69     | 2.14                                  | 0.09     | 0.79                                  |
| Southeastern Region   | 0.90     | 1.09     | 0.00        | 1.44 | 1.42     | 1.81                                  | 0.17     | 0.38                                  |
| Carbon                | 0 40     | ~        |             |      |          |                                       |          |                                       |
| Emery                 | 0.42     | 0.42     | 0.89        | 0.87 | 1.29     | 0.42                                  | 0.16     | 0.46                                  |
|                       | 0.44     | 0.62     | 0.74        | 0.90 | 0.95     | 0.29                                  | 0.50     | 0.43                                  |
| Grand                 | 0.37     | 1.31     | 1.57        | 1.19 | 1.26     | 0.92                                  | 0.56     | 0.38                                  |
| San Juan              | 0.25     | 0.00     | 0.86        | 1.67 | 0.50     | 0.00                                  | 0.00     | 0.50                                  |
| REGIONAL TOTALS       | 0.40     | 0.65     | 1.05        | 1.07 | 1.03     | 0.50                                  | 0.39     | 0.44                                  |
| Unknown Counties      | 0.00     | 0.00     | 0.00        | 0.00 | 0.00     | 1.00                                  | 0.00     | 0.00                                  |
| STATE TOTALS          | 0.66     | 0.86     | 0.80        | 0.84 | 0.80     | 0.68                                  | 0.69     | 0.72                                  |

| Table 7. | Percentage | distribution | of | chukar | harvest | рλ | region | and | county, |
|----------|------------|--------------|----|--------|---------|----|--------|-----|---------|
|          | 1984-91.   |              |    |        |         |    |        |     |         |

| Region and          |          |        |        |        | Year        |             |        | 1001         |
|---------------------|----------|--------|--------|--------|-------------|-------------|--------|--------------|
| County              | 1984     | 1985   | 1986   | 1987   | <u>1988</u> | 1989        | 1990   | 1991         |
| Northern Region     |          |        |        |        |             |             |        |              |
| Box Elder           | 6.64     | 8.39   | 7.64   | 10.59  | 10.15       | 13.21       | 18.42  | 23.43        |
| Cache               | 1,81     | 0.20   | 0.24   | 1.64   | 2.29        | 4.05        | 4.43   | 1.93         |
| Davis               | 1.61     | 0.61   | 0.16   | 0.07   | 1.71        | 0.83        | 0.85   | 1.57         |
| Morgan              | 0.30     | 0.31   | 0.00   | 0.29   | 0.67        | 1.43        | 0.93   | 1.36         |
| Rich                | 0.41     | 0.00   | 0.00   | 0.07   | 0.52        | 0.53        | 1.17   | 0.64         |
| Summit              | 0.20     | 0.00   | 0.00   | 0.37   | 0.88        | 0.08        | 1.17   | 0.14         |
| Weber               | 3.22     | 0.41   | 0.00   | 0.59   | 0.26        | <u>1.13</u> | 1.48   | 1.93         |
| REGIONAL TOTALS     | 14.18    | 9.92   | 8.04   | 13.65  | 16.51       | 21.25       | 28.44  | 31.00        |
| Central Region      |          |        |        |        |             |             |        |              |
| Juab                | 7.24     | 11.67  | 7.89   | 12.68  | 7.18        | 5.33        | 5.13   | 8.57         |
| Salt Lake           | 7.04     | 5.12   | 3.33   | 4.32   | 1.87        | 3.15        | 2.87   | 3.00         |
| Sanpete             | 2.51     | 8.90   | 4.72   | 2.83   | 7.96        | 9.83        | 8.08   | 6.07         |
| Tooele              | 26.66    | 32.85  | 27.07  | 20.44  | 24.63       | 19.67       | 28.21  | 15.29        |
| Utah                | 11.97    | 10.75  | 9.02   | 9.77   | 9.06        | 15.09       | 10.26  | 16.86        |
| Wasatch             | 0.10     | 0.10   | 0.00   | 0.37   | 0.20        | 0.23        | 0.16   | 0.93         |
| REGIONAL TOTALS     | 55.53    | 69.40  | 52.03  | 50.44  | 50.93       | 53.30       | 54.70  | 50.71        |
| Southern Region     |          |        |        |        |             |             | _      |              |
| Beaver              | 0.80     | 0.00   | 0.16   | 1.41   | 1.09        | 1.05        | 2.18   | 3.00         |
| Garfield            | 1.11     | 0.00   | 0.24   |        | 0.46        | 0.75        | 0.00   | 0.36         |
| Iron                | 0.20     | 0.00   | 0.00   | 0.00   | 0.00        | 0.00        | 0.31   | 0.14         |
| Kane                | 0.20     | 0.00   | 0.00   | 0.00   | 0.00        | 0.00        | 0.00   | 0.21         |
| Millard             | 10.96    | 10.64  | 18.78  | 13.13  | 8.22        | 4.65        | 3.11   | 3.21         |
| Piute               | 3.22     | 1.53   | 0.40   | 1.26   | 0.52        | 1.13        | 0.85   | 1.00         |
| Sevier              | 3.72     | 0.72   | 5.93   | 5.67   | 8.80        | 5.26        | 4.74   | 5.79         |
| Washington          | 0.10     | 0.00   | 0.00   | 0.00   | 0.00        | 0.00        | 0.00   | 0.00         |
| Wayne               | 0,00     | 0.31   | 0.00   | 0.14   | 0.57        | 0.30        | 0.00   | 0.64         |
| REGIONAL TOTALS     | 20.32    | 13.20  | 25.53  | 21.79  | 19.68       | 13.14       | 11.19  | <u>14.36</u> |
| Northeastern Region |          |        |        |        |             |             |        |              |
| Daggett             | 0.00     | 0.00   | 0.00   | 0.22   | 0.00        | 0.00        | 0.00   | 0.00         |
| Duchesne            | 0.20     | 0.20   | 0.00   | 0.07   | 1.87        | 0.60        | 0.78   | 0.43         |
| Uintah              | 1.61     | 1.02   | 0.00   | 2.38   | 0.57        | 5.78        | 0.16   | 0.79         |
| REGIONAL TOTALS     | 1.81     | 1.23   | 0.00   | 2.68   | 2.44        | 6.38        | 0.93   | 1.2          |
| Southeastern Region |          |        |        |        |             |             |        |              |
| Carbon              | 2.51     | 1.33   | 2,60   | 0.97   | 0.93        | 1.13        | 0.62   | 0.86         |
| Emery               | 2.72     | 3.17   | 4.15   | 3.20   | 7.18        | 1.35        | 3.73   | 1.14         |
| Grand               | 2.81     | 1.74   | 7.15   | 6.86   | 2.23        | 2.70        | 0.39   | 0.36         |
| San Juan            | 0.10     | 0.00   | 0.49   | 0.37   | 0.05        | 0.00        | 0.00   | 0.36         |
| REGIONAL TOTALS     | 8.15     | 6.24   | 14.39  | 11.41  | 10.41       | 5.18        | 4.74   | 2.7          |
| KEGIONAL IOTAPS     | <u> </u> | 0.24   |        |        |             |             |        |              |
| Unknown Counties    | 0.00     | 0.00   | 0.00   | 0.00   | 0.00        | 0.75        | 0.00   | 0.00         |
| STATE TOTALS        | 100.00   | 100.00 | 100.00 | 100.00 | 100.00      | 100.00      | 100.00 | 100.00       |

| Region and                             |              |                      |                |        | Year   |        |          |        |
|--|--------------|----------------------|----------------|--------|--------|--------|----------|--------|
| County                                 | 1984         | 1985                 | 1986           | 1987   | 1988   | 1989   | 1990     | 1991   |
| Northern Region                        |              |                      | · · · · ·      |        |        |        |          |        |
| Box Elder                              | 14.54        | 13.02                | 12.36          | 14.35  | 12.95  | 16.59  | 14.18    | 21.53  |
| Cache                                  | 2.77         | 1.04                 | 1.43           |        | 3.16   | 3.80   | 5.94     | 3.73   |
| Davis                                  | 1.98         | 1.23                 | 0.26           | 0.31   | 0.83   | 1.34   | 0.75     | 1.48   |
| Morgan                                 | 1.98         | 0.88                 | 0.91           | 0.18   | 0.49   | 1.75   | 0.91     | 1.79   |
| Rich                                   | 0.33         | 0.09                 | 0.07           | 0.06   | 0.29   | 0.51   | 0.48     | 1.43   |
| Summit                                 | 0.20         | 0.09                 | 0.07           | 0.25   | 1.04   | 0.26   | 0.37     | 0.72   |
| Weber                                  | 0.86         | 1.93                 | 1.50           | 1.12   | 0.45   | 0.72   | 1.39     | 1.64   |
| REGIONAL TOTALS                        | 22.67        | 18.66                | 16.59          | 17.93  | 19.24  | 24.96  | 24.02    | 32.33  |
| Central Region                         |              |                      |                |        |        |        |          |        |
| Juab                                   | 5.15         | 6.16                 | 7.22           | 9.65   | 6.41   | 5.55   | 4.87     | 7.06   |
| Salt Lake                              | 2.91         | 4.58                 | 2.47           | 3.13   | 2.16   | 2.05   | 1.71     | 1.28   |
| Sanpete                                | 1.45         | 5.98                 | 4.29           | 4.13   | 5.03   | 6.37   | 4.12     | 5.27   |
| Tooele                                 | 18.44        | 25.26                | 24.14          | 20.50  | 24.07  | 19.62  | 25.25    | 15.70  |
| Utah                                   | 12.62        | 13.02                | 11.13          | 11.53  | 11.32  | 13.20  | 10.59    | 15.24  |
| Wasatch                                | 0.99         | 1.32                 | 0.20           | 0.37   | 0.16   | 0.26   | 0.16     | 1.33   |
| REGIONAL TOTALS                        | 41.57        | 56.34                | 49.45          | 49.34  | 49.18  | 47.05  | 46.71    | 45.88  |
| <u>Southern Region</u>                 |              |                      |                |        |        |        |          |        |
| Beaver                                 | 0.33         | 1.85                 | 0.98           | 1.88   | 2.49   | 1.44   | 3.53     | 3.22   |
| Garfield                               | 0.39         | 0.97                 | 0.59           | 0.31   | 0.33   | 0.82   | 0.59     | 0.10   |
| Iron                                   | 0.07         | 0.00                 | 0.00           | 0.00   | 0.00   | 0.36   | 0.86     | 0.56   |
| Kane                                   | 0.20         | 0.89                 | 0.26           | 0.06   | 0.00   | 0.00   | 0.05     | 0.10   |
| Millard                                | 8.99         | 5.89                 | 8.00           | 10.09  | 6.95   | 5.60   | 3.48     | 4.19   |
| Piute                                  | 4.23         | 1.85                 | 2.47           | 1.31   | 1.37   | 1.44   | 2.03     | 0.72   |
| Sevier                                 | 6.61         | 2.99                 | 9.95           | 8.33   | 10.53  | 7.60   | 6.37     | 5.73   |
| Washington                             | 0.13         | 1.06                 | 0.00           | 0.12   | 0.00   | 0.00   | 0.27     | 0.20   |
| Wayne                                  | 0.20         | 0.26                 | 0.00           | 0.06   | 0.24   | 0.77   | 0.05     | 0.26   |
| REGIONAL TOTALS                        | 21.14        | 15.76                | 22.25          | 22.19  | 21.94  | 18.03  | 17.23    | 15.09  |
| Northeastern Region                    |              | ~ ~~                 |                |        |        |        |          |        |
| Daggett                                | 0.00         | 0.00                 | 0.00           | 0.06   | 0.00   | 0.00   | 0.59     | 0.00   |
| Duchesne                               | 0.59         | 0.09                 | 0.00           | 0.31   | 0.70   | 0.56   | 1.98     | 1.59   |
| Uintah                                 | 0.73         | 0.88                 | 0.78           | 1.19   | 0.66   | 1,85   | 1.18     | 0.72   |
| REGIONAL TOTALS<br>Southeastern Region | 1.32         | 0.97                 | 0.78           | 1.56   | 1.37   | 2.41   | 3.75     | 2.30   |
| Carbon                                 |              | 0 7 7                | <b>•</b> • • • | 0.04   | 0 50   |        | <b>a</b> |        |
| Emery                                  | 3.90<br>4.10 | 2.73<br>4.40         | 2.34           | 0.94   | 0.58   | 1.85   | 2.68     | 1.33   |
| Grand                                  | 4.10         |                      | 4.49<br>3.64   | 3.00   | 6.03   | 3.18   | 5.14     | 1.89   |
| San Juan                               | 0.26         | 1.14<br><u>0.</u> 00 |                | 4.82   | 1.41   | 2.00   | 0.48     | 0.66   |
| REGIONAL TOTALS                        | 13.28        |                      | 0.46           | 0.18   | 0.08   | 0.00   | 0.00     | 0.51   |
| MEGIONAL IOTALS                        | 13.20        | 8,27                 | 10.93          | 8.96   | 8.11   | 7.04   | 8.29     | 4.40   |
| Unknown Counties                       | 0.00         | 0.00                 | 0.00           | 0.00   | 0.12   | 0.51   | 0.00     | 0.00   |
| STATE TOTALS                           | 100.00       | 100.00               | 100.00         | 100.00 | 100.00 | 100.00 | 100.00   | 100.00 |

Table 8. Percentage distribution of chukar hunting pressure by region and county, 1984-91.

|           | Total   | Total     | Hunter-Days | Chukars Per | Chukars Per |
|-----------|---------|-----------|-------------|-------------|-------------|
| Year      | Hunters | Harvest   | Afield      | Hunter-Day  | Hunter      |
| .958      | 11,124  | 19,578    | 25,100      | 0.78        | 1.76        |
| 1959      | 11,154  | 8,700     | 26,364      | 0.33        | 0.78        |
| 1960      | 13,252  | 21,733    | 30,610      | 0.71        | 1.64        |
| 1961      | 14,046  | 20,821    | 35,675      | 0.58        | 1.48        |
| 1962      | 11,638  | 33,500    | 35,010      | 0.95        | 2.88        |
| 1963      | 14,532  | 42,806    | 40,824      | 1.05        | 2.95        |
| 1964      | 16,090  | 42,974    | 39,971      | 1.08        | 2.67        |
| 1965      | 16,431  | 35,335    | 45,067      | 0.78        | 2.15        |
| 1966      | 17,133  | 61,370    | 54,448      | 1.13        | 3.58        |
| 1967      | 17,485  | 48,906    | 50,671      | 0.97        | 2.80        |
| 1968      | 20,744  | 73,218    | 61,402      | 1.19        | 3.53        |
| 1969      | 22,529  | 80,917    | 71,674      | 1.13        | 3.59        |
| 1970      | 18,013  | 56,053    | 49,911      | 1,12        | 3.11        |
| 1971      | 17,917  | 61,151    | 55,378      | 1.10        | 3.41        |
| 1972      | 16,685  | 36,925    | 46,502      | 0.79        | 2.21        |
| 1973      | 13,888  | 48,135    | 50,677      | 0.95        | 3.47        |
| 1974      | 16,412  | 44,658    | 48,856      | 0.91        | 2,72        |
| 1975      | 16,156  | 41,151    | 51,083      | 0.81        | 2.57        |
| 1976      | 14,171  | 43,726    | 47,143      | 0.93        | 3.09        |
| 1977      | 12,691  | 34,155    | 38,873      | 0.88        | 2.69        |
| 1978      | 16,291  | 65,747    | 54,239      | 1.21        | 4.04        |
| 1979      | 15,210  | 51,918    | 42,254      | 1.23        | 3.41        |
| 1980      | 15,100  | 51,511    | 47,778      | 1.08        | 3.41        |
| 1981      | 12,907  | 44,983    | 36,662      | 1.23        | 3.49        |
| 1982      | 11,326  | 24,460    | 32,691      | 0.75        | 2.16        |
| 1983      | 10,418  | 29,649    | 31,904      | 0.93        | 2.85        |
| 1984      | 9,846   | 20,179    | 30,715      | 0.66        | 2.05        |
| 1985      | 7,930   | 20,938    | 24,346      | 0.86        | 2.64        |
| 1986      | 9,397   | 25,346    | 31,672      | 0.80        | 2.70        |
| 1987      | 11,276  | 32,848    | 39,099      | 0.84        | 2.91        |
| 1988      | 11,237  | 32,057    | 40,088      | 0.80        | 2.85        |
| 1989      | 10,910  | 27,628    | 40,384      | 0.68        | 2.53        |
| 1990      | 11,195  | 26,486    | 38,463      | 0.69        | 2.37        |
| 1991      | 10,577  | 24,355    | 34,010      | 0.72        | 2.30        |
| Totals    |         | _         |             |             | •           |
| (1958-91) | 475,711 | 1,333,917 | 1,429,544   |             |             |
| Averages  |         |           |             | 0.91        | 2.74        |

| .00.     |  |
|----------|--|
|          |  |
| -        |  |
| Guld Lar |  |
| Churten  |  |
| 61a 10   |  |
|          |  |

|                     |         | All Ha  | nts    | •     |                       |          |            | Complete | Unnfe          |        |              |
|---------------------|---------|---------|--------|-------|-----------------------|----------|------------|----------|----------------|--------|--------------|
| Region and          | Total   | Total   | Total  | Total | Rirds/                | Complete | Total      | Tatal    | Totol          | 0:     |              |
| County              | Parties | Hunters | liours | Rirds | 100 Mr                | limts    | Hunters    | liours   | 1 OGU<br>Rirde | 100 Hr | liturior.    |
| Northern Region     |         |         |        |       |                       |          |            |          |                |        |              |
| Box Elder           | 7       | ED      | ý      | н     | 17                    | ı        | ł          | ;        | 1              | :      |              |
| Cache               | ł       | 1       | 1      | 1     | 1                     | ł        | ł          | ;        | . 1            |        | t I          |
| Davis               | ł       | 1       | ł      | 1     | ;                     | 1        | •          | ;        | ł              | l      | I            |
| Morgan              | ;       | 1       | 1      | ł     | ;                     |          |            | ł        | ł              | 1      | 1            |
| Rich                | ł       |         |        |       |                       | ł        | ł          | 1        | ł              | 1      | 1            |
| Summit              | I       | :       | 1      | ł     | ł                     | 1        | :          | 1        | ;              | ;      | I            |
|                     | 1       | ;       | I      | 1     | ł                     | I        | ł          | ł        | ł              | ;      | I            |
| Weber               | 1       | ;       | 1      | 1     | 1                     | 1        | 1          | 1        | 1              | 1      | I            |
| REGIONAL TOTALS     | 2       | ••      | 9      | 1     | 17                    | :        |            | 1        |                | 1      | 1            |
| Central Region      |         |         |        |       |                       |          |            |          |                |        |              |
| Juah ·              | ŝ       | 14      | 28     | 0     | 0                     | T        | 7          | y.       | 4              | 67     | 2.00         |
| Salt Lake           | 1       | ;       | ;      | 1     | I                     | 1        | 1          | , ,      | • •            | 5      |              |
| Sanpete             | 9       | 14      | 11     | 13    | 48                    |          | œ          | 01       | 10             | 5      |              |
| Tooele              | 17      | 37      | 209    | 1     |                       | a ve     | ; <u>r</u> | 114      | 2 -            | 3 -    | 57.1         |
| Utah                | 1       | 1       |        | 1     | •                     | -        | 3 6        |          |                | - 5    | 10.0         |
| Wasatch             | I       | ì       | ۱.     | ł     | ł                     | • •      | • 1        | -        | •              | 5      | 10.7         |
| REGIONAL TOTALS     | 28      | 8       | 264    | 26    | 9                     | =        | 11         | 145      | 2              | 1      | 0.0          |
| Southern Region     |         |         |        |       |                       |          |            |          |                |        |              |
| Beaver              | ł       | ł       | 1      | ł     | :                     | 1        | :          | ;        | 1              | ł      | 1            |
| Garfield            | :       | 1       | 1      | ł     | :                     | ł        | I          | :        | ł              | 1      | 1            |
| Iron                | 1       | 1       | ł      | ı     | ;                     | :        | ł          | ł        | ;              | ł      | ł            |
| Kane                | 1       | ł       | I      | Ŧ     | ;                     | I        | ;          | I        | 1              | ı      | 1            |
| Millard             | ı       | ł       | ł      | I     | :                     | ł        | ł          | I        | ł              | I      | I            |
| Piute               | 1       | ł       | 1      | ł     | :                     | ;        | ;          | 1        | I              | I      | I            |
| Sevier              | t       | 1       | I      | 1     | ;                     | I        | I          | 1        | I              | 1      | 1            |
| Washington          | ı       | :       | 1      | 1     | :                     | I        | 1          | ;        | . <b>I</b>     | I      | 1            |
| Wayne               | 1       | 1       | 1      | ;     | ł                     | ł        | ł          | I        | I              | ₽      | I            |
| REGIONAL TOTALS     | 1       | 1       | 1      | 1     | :                     | ł        | ;          | :        | .              | 1      | •            |
| Northeastern Region |         |         |        |       |                       |          |            |          |                |        |              |
| Daggett             | :       | 1       | ı      | 1     | :                     | ł        | 1          | ļ        | :              | ł      | I            |
| Duchesne            | ł       | 1       | ;      | ł     | 1                     | ł        | 1          | ;        | ł              | 1      | I            |
| Uintah              | :       | 1       | 1      | ;     | ł                     | 1        | ť          | 1        | 1              | 1      | ł            |
| REGIONAL TOTALS     | ı       | 1       | 1      | 1     | 1                     | :        | :          | +        | 1              |        | ;            |
| Southeastern Region |         |         |        |       |                       |          |            |          |                |        |              |
| Carbon              | :       | 1       | ı      | I     | i                     | 1        | Ļ          | 1        | ;              | 1      | 1            |
| Ешету               | ł       | :       | 1      | 1     | ł                     | i        | ł          | :        | ł              | ł      | I            |
| Grand               | ł       | :       | ı      | 1     | <b>I</b> <sup>*</sup> | ı        | 1          | 1        | ł              | ;      | , <b>!</b> . |
| San Juan            | 1       | 1       | 1      |       | 1                     | ł        | ;          | :        | ;              | :      | 1            |
| REGIONAL TOTALS     | ł       | :       | :      | 1     | :                     | 1        |            | :        | :              | ;      | :            |
|                     |         |         |        |       |                       |          |            |          |                | ;      |              |

| 1 486 1 987          | 1986       |                  | 1987    |            | 1 y X X |         | 1989        |        | 19961    |            | 1661     |          |
|----------------------|------------|------------------|---------|------------|---------|---------|-------------|--------|----------|------------|----------|----------|
| -                    |            | Derdol           | Divilef | Binde/     |         | Birde/  | Rinde/      | Birdel | Rirde/   | Rirde/     | Rinde/   | Rirds/   |
| Kegnon and<br>County | 100 JIr    | Bunter<br>Hunter | 100 Hr  | Hunter     | 100 JIr | flunter | 100 Hr      | Hunter | 100 Br   | llunter    | 100 Hr   | Hunter   |
| Northern Region      |            |                  |         |            |         |         |             |        |          |            |          |          |
| Box Filder           | •          | 0.27             | 31      | 1.41       | EI      | 0.43    | 20          | 2.50   | 133      | 4.00       | ł        | 1        |
| Carla                | . 1        |                  | 38      | 1.37       | 12      | 2.00    | 1           | 1      | ;        | :          | ł        | <b>1</b> |
| Darie                | 1          | ;                | 25      | 1.00       | :       | 1       | I           | ;      | 1        | ł          | 1        |          |
|                      | I          | }                | 2       |            |         |         |             |        |          | 1          |          | 1        |
| Morgan               | :          | I                | ł       | 1          | ł       | ł       | ł           | !      | 1        | ł          | ł        | 3        |
| Rich                 | 1          | ł                | ł       | 1          | ł       | :       | 1           | 1      | ;        | <b>¦</b> , | ;        | l        |
| Summit               | !          | :                | ł       | · ,        | 1       | :       | ;           | ł      | ۱        | ł          | ı        | 1        |
| Weber                | I          | 1                | I       | ł          | 1       | .1      | 1           | 1      | 1        | 1          | 1        | 1        |
| REGIONAL TOTALS      | F          | 0.27             | 33      | 1.39       | 23      | 0.82    | <b>2</b> 0  | 2.50   | 133      | 4.00       | 1        | :        |
| Central Region       |            |                  |         |            |         |         |             |        |          |            |          |          |
|                      | I          | 1                | ł       | 1          | 75      | 2.57    | <u> 3</u> 2 | 1.90   | 116      | 7.00       | 67       | 2.00     |
|                      |            |                  | 1       | ;          | · •     | 1       |             | 1      | 1        | !          | ĺ        | I        |
|                      | <b>I</b> . | l                |         |            |         |         | ;           | ł      | ;        | 1          | ĩ        | 1.25     |
| Sarpete              | l          | ł                | : ;     | : .        | 1 5     | ; ;     | •           | 1 00 0 | I        | ł          | 3 -      | 0.07     |
| Tooele               | 1          | 1                | 77      | 00.2       | 10      | 1.11    | 4 i         | 40°.   | 1        |            | - 5      | 10.0     |
| Utah                 | 1          | ł                | 1       | 1          | ł       | ł       | 20          | 1.00   | 9        | Z.00       | 67       | MI'Z     |
| Wasatch              | 1          | 1                | 1       | 1          | ;       | 1       | I.          | 1      | ;        | 1          | t        | 1        |
| REGIONAL TOTALS      | ſ          | 1                | 22      | 2.00       | 73      | 2.29    | 31          | 1.00   | 8        | 1.36       | 13       | 0.70     |
| Southern Region      |            |                  |         |            |         |         |             |        |          |            |          |          |
| Веачет               | I          | ;                | 1       | 1          | ı       | ł       | ł           | 1      |          | ł          | t        | I        |
| Garfield             | ı          | :                | ł       | <b>I</b> . | ł       | 1       | ł           | 1      | 1        | Ì          | 1        | I        |
| Iron                 | 1          | ł                | ;       | ;          | ł       | :       | ł           | ł      | <b>;</b> | I          | I        | I        |
| Kane                 | ł          | I                | 1       | ł          | ł       | ł       | 1           | ł      | 1        | I          | I        | 1        |
| Millard              | I          | ł                | 1       | ł          | 1       | 1       | 1           | :      | 1        | I          | ł        | 1.       |
| Piute                | ł          | ł                | ł       | :          | ł       | ł       | 1           | 1      | 1        | ;          | 1        | I        |
| Sevier               | 1          | ;                | .       | :          | 1       | ł       | ł           | ł      | ł        | 1          | ł        | I        |
| Washington           | 1          | I                | . 1     | 1          | 1       | ł       | ł           | ł      | :        | ;          | <b>I</b> | I        |
| Wayne                | I          | I                | 1       | 1          | 1       | :       | ł           | 1      |          | '          | 1        | 1        |
| REGIONAL TOTALS      | ľ          | ;                | 1       | 1          | 1       | 1       | 1           | ;      | ;        | ł          | 3        | 1        |
| Northeastern Region  |            |                  |         |            |         |         |             |        |          |            |          |          |
| Daggett              | I          | :                | ł       | I          | 1       | 1       | I           | 1      | 1        | 1          | 1        | ł        |
| Duchesne             | i          | 1                | I       | I          | 1       | 1       | 1           | ł      | 38       | 1.50       | 1        | ł        |
| Lintah               | ł          | 1                | 1       | 1          | 87      | 3.71    | 1           | I      | ł        | I          | 1        | I        |
| REGIONAL TOTALS      |            | 1                | 1       | 1          | 87      | 3.71    | 1           | 1      | 38       | 1.50       | 1        | 1        |
| Southeastern Region  |            |                  |         |            |         |         |             |        |          |            |          |          |
| Carbon               | ł          | ł                | ł       | :          | :       | ł       | ł           | I      | ł        | ł          | ł        | ł        |
| Emery                | 100        | 3.00             | ł       | 1          | ł       | 1       | 133         | 4.00   | 33       | 1.00       | 1        | ł        |
| Grand                | <b>4</b> 5 | 1.52             | 17      | 0.67       | 49      | 2.54    | 75          | 1.50   | 1        | ł          | ł        | 1        |
| San Juan             | ı          | I                | :       | :          | 1       | ł       | ı           | 1      | 1        | 1          | 1        | ;        |
| REGIONAL TOTALS      | 51         | 1.69             | 11      | 0.67       | 49      | 2.54    | 100         | 2.30   | 33       | 1.00       | ì        | 1        |
|                      |            |                  |         |            |         |         |             |        | 4        |            | ÷        | 0.00     |

# SUMMARY

SAGE GROUS

Harvest data for 1990 indicated above average breeding populations of sage grouse for 1991. Strutting ground surveys indicated a decrease in the average male grouse attendance from 1990. ほうがたい

GROLORE

Brood surveys showed decreased production throughout the state. Birds observed per 100 hours remained about the same as in 1990, and was 14 percent below average. The ratio of young to adults decreased 33 percent compared to 1990 and was 21 percent below average.

The decrease in production, as indicated from brood counts, in 1991, was apparent in harvest statistics collected from questionnaires and from field bag checks. Hunter success rates decreased. Harvest was above the 37-year average. Age ratios derived from wings indicated a 40 percent decrease in young per 100 adults and was 45 percent below average.

#### Strutting Ground Counts

The status of the sage grouse breeding population for 1991, as indicated by strutting ground counts, is shown in Table 1 and Figure 1 of this section. Results of this survey for 1991 compared to 1990 and the 1967-90 average follow:

|   |             | Percent         | <u>change from</u> |
|---|-------------|-----------------|--------------------|
|   | <u>1991</u> | 1990            | <u>Average</u>     |
| Number of grounds counted   | 71          | -45             | -35                |
| Total male grouse counted   | 574         | -78             | -72                |
| Average male grouse per ground<br>Percent change from previous year | 8           | <del>~</del> 60 | -58                |
| (comparable grounds)  | -11         |                 |                    |

Access for spring 1991 strutting ground counts was generally good in most regions of the state. The numbers of male grouse observed decreased statewide. Harvest data for 1990 indicated average populations going into the winter of 1990-91, but the numbers of juvenile birds observed during the summer indicated decreased production compared to 1990. Loss of habitat continues to be the trend in many areas of the state.

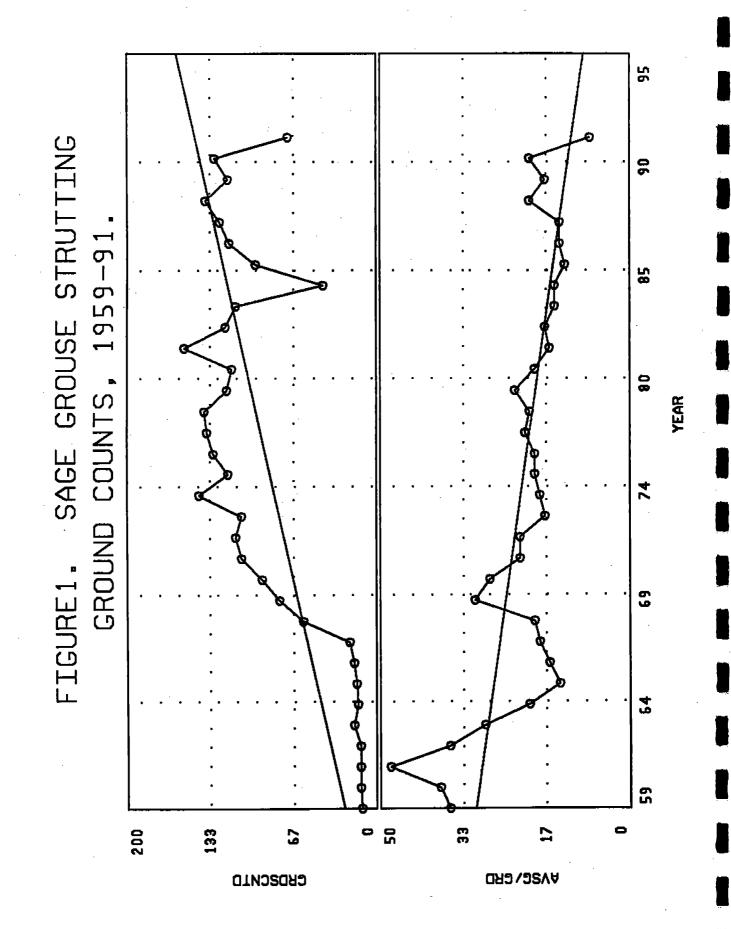
#### Brood Counts

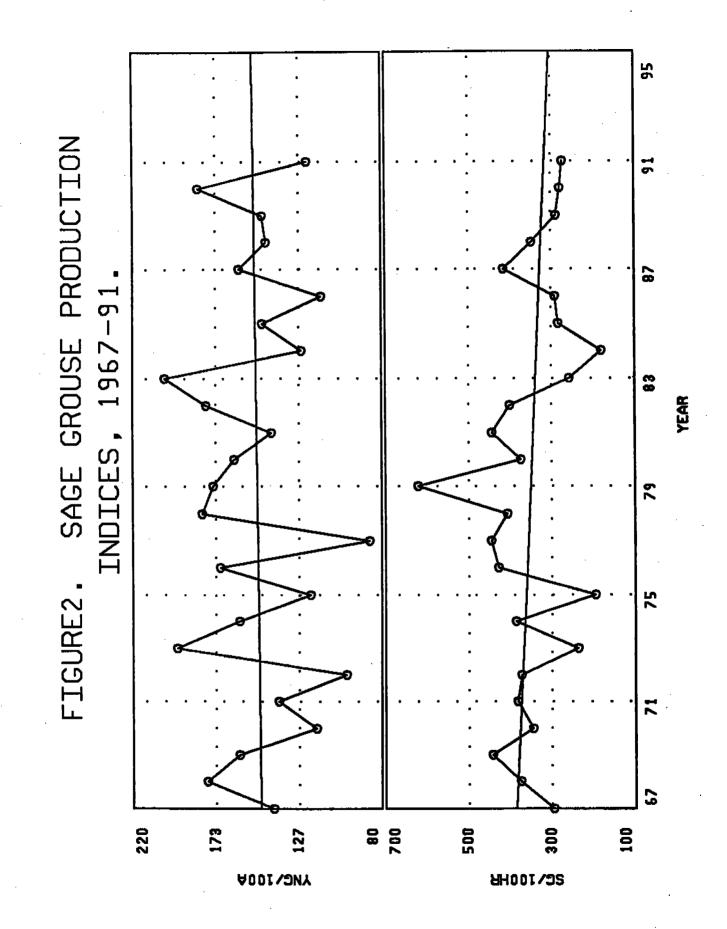
Results of the summer inventory survey for 1991 are found in Table 2. Long-term trends of young per adult ratios, mean brood size and sage grouse observed per 100 hours are shown in Tables 3-5 and Figure 2. Indices for 1991 are compared to 1990 and the previous 10-year (1981-90) average as follows:

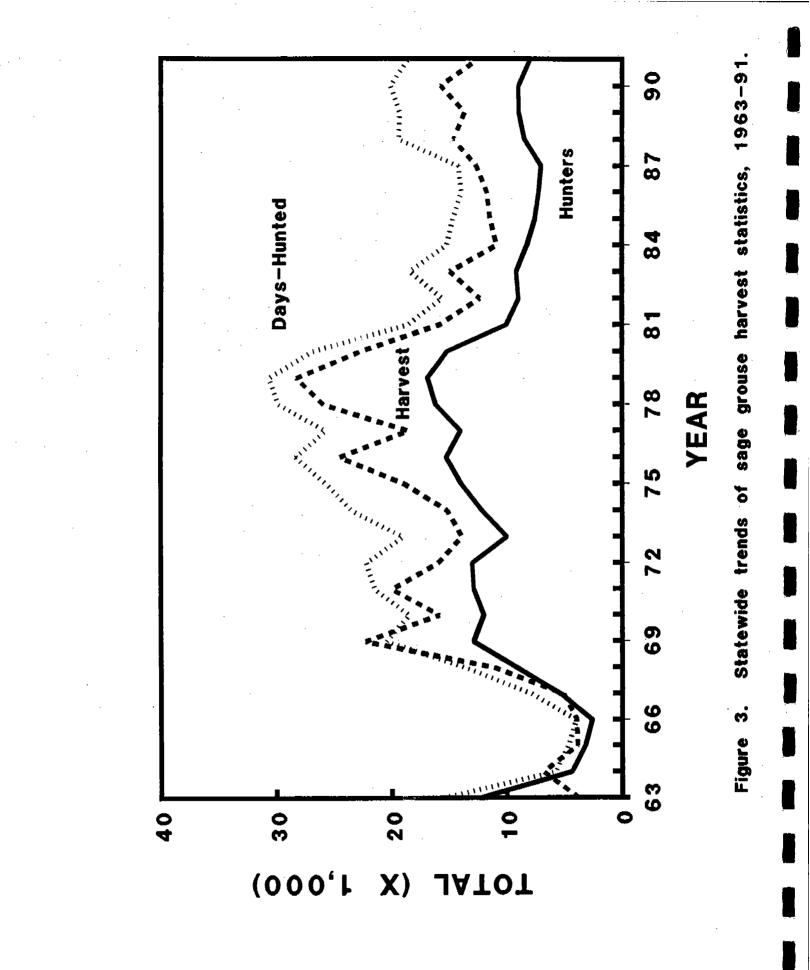
|                                    | 1991 | <u>Percent</u><br>1990 | <u>change from</u><br><u>Average</u> |
|------------------------------------|------|------------------------|--------------------------------------|
| ·                                  |      |                        |                                      |
| Total sage grouse counted          | 547  | -28                    | -60                                  |
| Young per 100 adults               | 122  | -33                    | -21                                  |
| Mean brood size                    | 3.70 | -21                    | -17                                  |
| Sage grouse observed per 100 hours | 273  | -2                     | -14                                  |
| Total hours effort                 | 201  | -17                    | -52                                  |

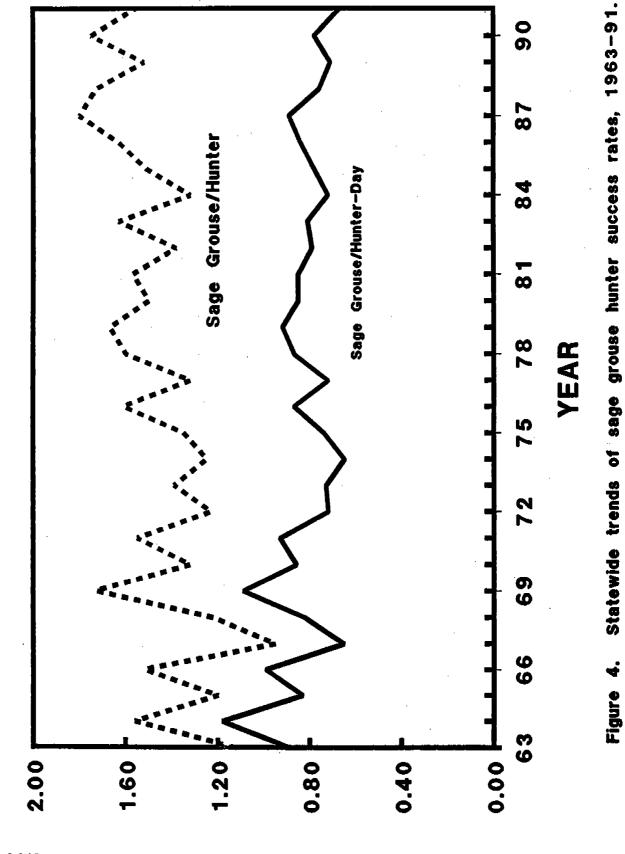
The effort devoted to sage grouse brood counts was 52 percent below average, and the total number of grouse counted was 60 percent below average.

Sage grouse density remained about the same as in 1990, production of young per 100 adults decreased 33 percent. The average brood size was 17 percent below the 10-year average. Continued drought conditions may have negatively influenced brood survival or caused an earlier dispersal of broods.

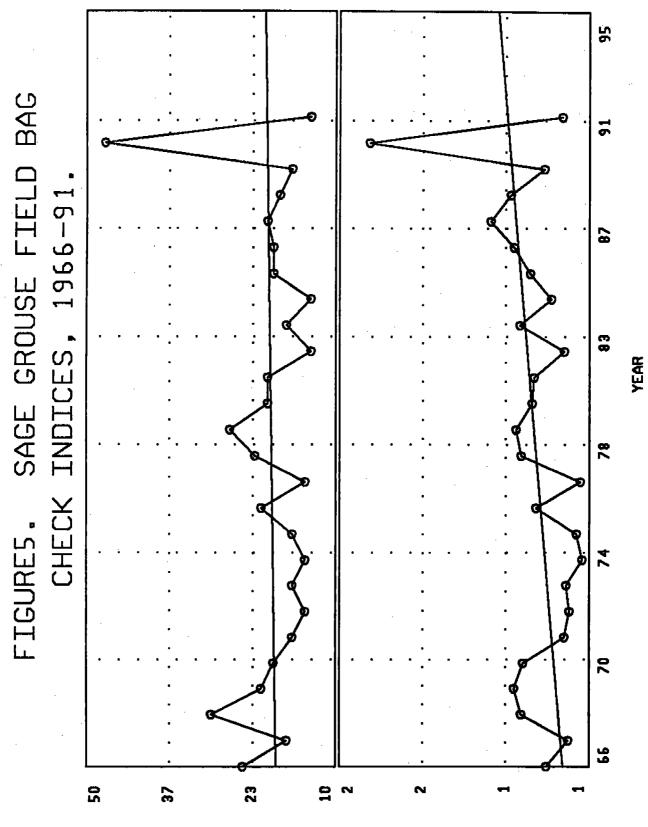








**YAG RAUSE PER HUNTER AND PER DAY** 



HOOT/HOS



#### Harvest

### Hunter Questionnaire

Results of the 1991 hunter questionnaire are shown in Table 6. Long-term trends of sage grouse bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 7-9 and total statewide harvest statistics in Table 10. The results of the 1991 hunting season compared to 1990 and the previous 28-year average follow:

|                            |             | <u>Percent_</u> | change from |
|----------------------------|-------------|-----------------|-------------|
|                            | <u>1991</u> | 1990            | Average     |
| Sage grouse hunters        | 8,018       | -11             | +8          |
| Sage grouse harvested      | 12,542      | -21             | +14         |
| Hunter-days afield         | 18,596      | -8              | +4          |
| Sage grouse per hunter-day | 0.67        | -14             | -20         |
| Sage grouse per hunter     | 1.56        | -11             | -16         |

Sage grouse per hunter-day success rate decreased 14 percent in 1991. Total statewide harvest decreased 21 percent, and there was a slight decrease in total sage grouse hunters. Forty-seven percent of the harvest and 48 percent of the hunting pressure still occurred in the Northern region.

Long-term sage grouse harvest trends are shown in Figures 3 and 4.

#### Field Bag Checks

A summary of field bag check data for 1991 is shown in Table 11. Hunter success trends determined via this method are shown in Table 12 and Figure 5. Results of the 1991 survey compared to 1990 and the 10-year (1981-90) average follow:

|  |             | Percent     | <u>change from</u> |
|--|-------------|-------------|--------------------|
|  | <u>1991</u> | <u>1990</u> | <u>Average</u>     |
| Total hunters checked                              | 948         | +105        | -20                |
| Total hours hunted                                 | 4,981       | +204        | -10                |
| Sage grouse per hunter                             |             |             |                    |
| (complete hunts)                                   | 0.75        | -59         | -27                |
| Sage grouse bagged per 100 hours                   | 14          | -70         | -31                |
| Average hours per hunter-day                       |             |             |                    |
| (complete hunts)                                   | 5.25        | +35         | · +4               |
| Hours hunted per grouse bagged<br>(complete hunts) | 7.04        | +232        | +31                |

Much of Utah was again dry with birds concentrated around available water. Hunter success rates from field bag checks showed decreased success for 1991 compared to 1990 and the long-term average.

## Sex and Age Composition of the Harvest

A summary of the sex and age composition of harvested sage grouse in 1991 is found in Table 13 and the trend from 1988-91 in Table 14.

Following are data derived from wing surveys in 1991 compared to 1990 and the 1973-90 average:

|                            | <u>1991</u> | <u>Percent</u><br><u>1990</u> | <u>change from</u><br><u>Average</u> |
|----------------------------|-------------|-------------------------------|--------------------------------------|
| Sample size                | 943         | 0                             | -17                                  |
| Percent males              | 42          | 0                             | +2                                   |
| Percent females            | 58          | 0                             | -2                                   |
| Young per 100 adults       | 81          | -40                           | -45                                  |
| Young per 100 hens (adult) | 136         | -34                           | -39                                  |

Analysis of wings collected at checking stations during the 1991 season indicates that statewide production was down compared to 1990, and was below the previous 18-year average. This corresponds with brood counts.

Table 1. Summary of sage grouse strutting ground counts by region and county, 1981-91.

| LAUNE L. JUILLING VI SARE GOULS SULURING ROUTIN DE COULUS D |       |      | 1701 |             |      | Voar |      |      |      |            |      |
|---|-------|------|------|-------------|------|------|------|------|------|------------|------|
|   | 1981  | 1982 | 1983 | 1984        | 1985 | 1986 | 1987 | 1988 | 1989 | 1990       | 1661 |
| Northern Region   |       |      |      |             |      |      |      |      |      |            |      |
| Box Elder   |       |      |      |             |      |      |      |      |      |            | ļ    |
| No. Strutting Grounds Counted                               | 35    | 15   | 17   | 80          | 32   | 10   | 18   | 15   | 11   | 20         | 16   |
| Total Male Grouse Counted                                   | 711   | 384  | 322  | 216         | 309  | 288  | 314  | 419  | 343  | 327        | I    |
| County Average (all strutting grounds)                      | 20    | 26   | 19   | 27          | 10   | 29   | 18   | 28   | 31   | 53         | 21   |
| % Change From Previous Year - Comparable Grounds            | -35   | -24  | -29  | 8-          | 7    | 17   | -12  | 33   | 3    | -17        | -11  |
| Cache   |       |      |      |             |      |      |      |      |      |            |      |
| No. Strutting Grounds Counted                               | ė     | 1    | 0    | -           | •    | 7    | -    | -    | 7    | ł          | I    |
| Totaf Male Grouse Counted                                   | 18    | 19   | •    | S           | :    | œ    | ò    | 6    | 15   | 1          | 1    |
| County Average (all strutting grounds)                      | 9     | 19   | 1    | s           | ł    | 4    | •    | •    | œ    | I          | 1    |
| % Change From Previous Year - Comparable Grounds            | ££-   | 58   | 1    | I           | ł    | ł    | 1    | 100  | 40   | 1          | 1    |
| Morgan  |       |      |      |             |      |      |      |      |      |            |      |
| No. Strutting Grounds Counted                               | •     | •    | ••   | l           | e,   | 5    | 7    | 1    | 1    | I          | ł    |
| Total Male Grouse Counted                                   | 57    | 65   | 31   | 7           | 33   | 22   | 26   | 19   | ł    | I          | ł    |
| County Average (all strutting grounds)                      | 19    | 22   | 10   | 7           | 11   | ٢    | 13   | 19   | 1    | 1          | I    |
| % Change From Previous Year - Comparable Grounds            | -51   | 16   | -31  | <b>16</b> - | 1000 | -33  | 18   | -21  | I    | I          | 1    |
| Rich  |       |      |      |             |      |      |      |      |      |            |      |
| No. Strutting Grounds Counted                               | 13    | ٢    | •    | 9           | 81   | 11   | 12   | Ð    | 9    | 19         | ដ    |
| Total Male Grouse Counted                                   | 259   | 153  | 188  | 103         | 399  | 296  | 431  | 319  | 281  | 863        | 710  |
| County Average (all strutting grounds)                      | 20    | 77   | 21   | 17          | 22   | 27   | 36   | 8    | 47   | 41         | 32   |
| % Change From Previous Year - Comparable Grounds            | s     | -21  | 7    | ?           | 49   | -28  | 53   | -10  | S    |            | -18  |
| Summit  |       |      |      |             |      |      |      | 1    |      |            |      |
| No. Strutting Grounds Counted                               | ٢     | 7    | 7    | 1           | •    | 1    | ٢    | 10   | I    | I          | I    |
| Total Male Grouse Counted                                   | 6     | II   | 46   | 16          | ł    | 83   | 25   | 17   | I    | I          | ł    |
| County Average (all strutting grounds)                      | •     | 9    | - 1  | 16          | 1    | 5    | 4    | 6    | 1    | I          | I    |
| % Change From Previous Year - Comparable Grounds            | 13    | -50  | 6-   | 78          | 1    | 1    | -65  | -32  | 1    | I          | ł    |
| REGIONAL TOTALS   |       |      |      |             |      |      |      |      |      |            |      |
| No. Strutting Grounds Counted                               | 61    | 28   | 36   | 17          | 8    | 33   | 40   | 33   | 19   | <b>6</b> E | 38   |
| Total Male Grouse Counted                                   | 1,105 | 632  | 587  | 342         | 741  | 637  | 806  | 783  | 639  | 1,190      | 710  |
| Average Grouse Per Ground (all strutting grounds)           | 18    | 23   | 16   | 20          | 14   | 19   | 20   | 24   | 34   | 31         | 27   |
| % Change From Previous Year - Comparable Grounds            | -27   | -20  | -22  | 6           | 27   | œ    | 16   | Ξ    | s    |            | -15  |

Table 1 (continued)

| Region and  |      |      |      | •    |      | Year |      |      |             |      |      |
|---|------|------|------|------|------|------|------|------|-------------|------|------|
| County  | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989        | 1990 | 1991 |
| Central Region                                    |      |      |      |      |      |      |      |      |             |      |      |
| Juab  |      |      |      |      |      |      |      |      |             |      |      |
| No. Strutting Grounds Counted                     | ł    | I    | 1    | 1    | 1    | ł    | -    | -    | I           | 1    | I    |
| Total Male Grouse Counted                         | ł    | ł    | 1    | ;    | 1    | ł    | 6    | 14   | 11          | 4    | 15   |
| County Average (all strutting grounds)            | 1    | 1    | ł    | 1    | 1    | 1    | •    | 14   | 11          | 4    | 15   |
| % Change From Previous Year - Comparable Grounds  | 1    | I    | 1    | 1    | ł    | ;    | •    | 56   | -21         | -63  | 1    |
| Sanpete   |      |      |      |      |      |      |      |      |             |      |      |
| No. Strutting Grounds Counted                     | 7    | 2    | 7    | 7    | 1    | 6    | 4    | 7    | 7           | 7    | 7    |
| Total Male Grouse Counted                         | 6    | Ξ    | œ    | Đ    | •    | •    | Ó    | 0    | •           | 0    | Ō    |
| County Average (all strutting grounds)            | v,   | Ŷ    | 4    | I    | ł    | l    | 1    | •    | 0           | •    | ŀ    |
| % Change From Previous Year - Comparable Grounds  | 0    | 22   | -27  | -100 | 0    | 0    | 0    | 0    | 0           | 0    | ;    |
| Toorle  |      |      |      |      |      |      |      |      |             |      |      |
| No. Strutting Grounds Counted                     | v)   | s    | 9    | 9    | 9    | 9    | ŝ    | Ŵ    | S           | ŝ    | ŝ    |
| Total Male Grouse Counted                         | 46   | 28   | 28   | 53   | 55   | 82   | 96   | 8    | 4           | 16   | 82   |
| County Average (all strutting grounds)            | 6    | 9    | S    | 4    | 6    | 16   | 19   | 18   | . <b>IS</b> | 18   | 16   |
| % Change From Previous Year - Comparable Grounds  | -64  | -64  | •    | -18  | 139  | 149  | 17   | Ŷ    | -12         | 20   | -15  |
| Wasatch   |      |      |      |      |      |      |      |      |             |      |      |
| No. Strutting Grounds Counted                     | 5    | 1    | 7    | 7    | 1    | 7    | 7    | 7    | 7           | 7    | 7    |
| Total Male Grouse Counted                         | 45   | 18   | 54   | 57.  | 63   | 117  | 54   | - 23 | 4           | 51   | H    |
| <b>County Average (all strutting grounds)</b>     | ส    | 6    | 27   | 29   | 32   | 59   | 27   | 26   | ដ           | 26   | 9    |
| % Change From Previous Year - Comparable Grounds  | 0    | -60  | 200  | 6    | 11   | 205  | -54  | -4   | -19         | 18   | -75  |
| REGIONAL TOTALS                                   |      |      |      |      |      |      |      |      |             |      |      |
| No. Strutting Grounds Counted                     | ė    | 9    | 10   | 10   | 10   | 10   | Ľ    | 10   | 10          | 10   | 10   |
| Total Male Grouse Counted                         | 100  | 57   | 96   | 80   | 118  | 199  | 150  | 155. | 132         | 146  | 108  |
| Average Grouse Per Ground (all strutting grounds) | 11   | 9    | 6    | œ    | 12   | 18   | 17   | 16   | 13          | 15   | 12   |
| % Change From Previous Year - Comparable Grounds  | -51  | 64   | 58   | -11  | 48   | 170  | -25  | -3   | -16         | 11   | -45  |
|   |      |      |      |      |      |      |      |      |             |      |      |

| Kegion and  |      |      |      |       |      |            |                |      |            |          |             |
|---|------|------|------|-------|------|------------|----------------|------|------------|----------|-------------|
|   | 1981 | 1982 | 1983 | 1984  | 1985 | 1986       | 1987           | 1988 | 6861       | 1990     | <u>6</u>    |
| Southerst Region                                  |      |      |      |       |      |            |                |      |            |          |             |
| Reaver  |      |      |      |       |      |            |                |      |            |          |             |
| No. Strutting Grounds Counted                     | ٢    | ~    | ٢    | 4     | ÷    | 4          | 4              | en.  | <b>v</b> n | 7        | 1           |
| Total Male Grouse Counted                         | 140  | 131  | 117  | 8     | \$   | 55         | 23             | \$   | 11         | 33       | 1           |
| County Average (all strutting grounds)            | 50   | 61   | 17   | 13    | 15   | 14         | 13             | 15   | 14         | 16       | 4           |
| % Change From Previous Year - Comparable Grounds  | 9    | -6   | 11-  | 78    | ;    | 22         | Ņ              | 1    | 5          | 1        | 1           |
|   |      |      | -    |       |      |            |                |      |            |          |             |
| No. Strutting Grounds Counted                     | Π    | 0    | œ    | ۲     | ł    | 80         | •              | œ    | ÷          | 10       | I           |
| Total Male Groute Counted                         | 298  | 359  | 197  | 133   | ł    | 152        | 175            | 251  | 126        | 244      | 1           |
| County Average (all structing grounds)            | 11   | 39   | 25   | 19    | ł    | 61         | 19             | 31   | 16         | 24       | 35          |
| % Change From Previous Year - Comparable Grounds  | 114  | 78   | -17  | -46   | 1    | 13         | 0              | 24   | -50        | ł        | 1           |
| Irou  |      |      |      |       |      |            |                |      |            |          |             |
| No. Strutting Grounds Counted                     | ٢    | •    | 4    | ı     | Ś    | 9          | 4              | ÷    | 9          | en       | l           |
| Total Male Cronse Counted                         | 101  | 111  | 105  | 1     | 81   | 131        | 64             | 111  | 127        | 50       | 1           |
| County Average (all strutting grounds)            | 14   | 12   | 26   | 1     | 16   | 22         | 16             | 19   | 21         | 20       | 23          |
| % Chunge From Previous Year - Comparable Grounds  | 20   | ę    | 27   | ;     | I    | <b>4</b> 9 | H-             | -13  | 14         | 1        | 1           |
| Kane  |      |      |      |       |      |            | . <sup>-</sup> |      |            |          |             |
| No. Strutting Grounds Counted                     | I    | 1    | 1    | 1     | 1    | ł          | ı              | I    | 1          | I        | ł           |
| Total Male Grouse Counted                         | 1    | 1    | ł    | I     | 1    | 1          | ł              | 1    | 41         | 1        | I           |
| County Average (all strutting grounds)            | 1    | 1    | I    | 1     | 1    | ı          | 1              | I    | 17         | 1        | 14          |
| % Change Fram Previous Year - Comparable Grounds  | :    | I    | I    | 1     | 1    | 1          | 1              | 1    | ı          | 1        | 1           |
|   |      |      |      |       |      |            |                |      |            |          |             |
| No. Strutting Grounds Counted                     | T    |      | :    | 1     | -    | 1          | 1              | ï    | I          | I        | ł           |
| Total Male Grouse Counted                         | 77   | 22   | ł    | 4     | 7    | ¢,         | ŧ              | ł    | I          | ł        | ł           |
| County Average (all strutting grounds)            | 11   | 77   | ł    | 4     | 1    | <b>6</b> 2 | 1              | 1    | ł          | ł        | I           |
| % Change From Previous Year - Comparable Grounds  | I    | 0    | 1    | I     | I    | 33         | 1              | t    | ;          | 1        | 1           |
|   |      |      |      |       |      |            |                |      |            |          |             |
| No. Strutting Grounds Counted                     | 7    | 4    | I    | ł     | 1    | 1          | I              | 61   | ł          | I        |             |
| Total Male Grouse Counted                         | e    | ŝ    | ł    | I     | I    | •          | I              | ¢    | 1          | Ĺ        | 30          |
| County Average (all strutting grounds)            | 0    | 1    | 1    | I     | I    | I          | 1              | ł    | ł          | I        | 20          |
| % Change From Previous Year - Comparable Grounds  | 1    | 1    | 1    | ı     | ı    | 1          | 1              | •    | 1          | :        | 1           |
| Wayne   |      |      |      |       |      |            |                | :    |            | ŝ        | ;           |
| No. Strutting Grounds Counted                     | 14   | 14   | 1    | (12)• | ł    | 1          | 13             | 13   | 1          | 2        | <u>e</u> ;  |
| Total Male Grouse Counted                         | 284  | 300  | 123  | (68)  | I    | 120        | 182            | 326  | 268        | 259      | 19 <u>6</u> |
| County Average (all strutting grounds)            | 20   | 21   | 123  | ε     | ;    | đ          | 14             | 52   | 21         | 56       | 7           |
| % Change From Previous Year - Comparable Grounds  | :    | ł    | 1    | '     | 1    | -15        | 79             | -18  | ;          | :        | 1           |
| REGIONAL TOTALS                                   |      |      |      |       |      |            |                | 1    | 2          | į        | ļ           |
| No. Strutting Grounds Counted                     | 4    | 4    | 73   | 13    | 71   | 34         | R              | 5    | 5          | 9 j      |             |
| Total Male Grouse Counted                         | 84S  | 928  | 563  | 185   | 391  | 461        | 473            | 134  | 5          | <b>%</b> | 5           |
| Average Gronse Per Ground (all strutting grounds) | 20   | . 21 | 24   | 15    | 19   | 14         | 16             | 23   | 5          | 34       | E           |
|   |      | Ş    | •    | Ę     |      | :          | Ş              | ą    | ģ          |          | 1           |

| 1982     1983     1984     1985       6     6     6     5       3     7     -     5       3     7     -     5       3     7     -     5       3     7     -     5       3     7     -     55       15     15     -     43       15     17     -     -29       15     17     -     -29       16     17     -     -29       15     17     -     -29       16     17     -     -29       20     17     -     -29       21     17     -     -29       21     17     -     -29       21     17     -     -29       21     17     -     -21       40     -21     -     -190       33     37     -     -       336     -     336  |     |     |     |      |       |      |      |      |            |
|--|-----|-----|-----|------|-------|------|------|------|------------|
| ern Region<br>ting Grounds Counted<br>de Grounds Counted<br>te Grounds Counted<br>de Grounds Counted<br>e Grounds Counted<br>ting Grounds Counted<br>file 15 15 15   |     |     |     |      | 1987  | 1988 | 1989 | 0661 | 1991       |
| ting Grounds Counted<br>de Grouse Counted<br>Average (all strutting grounds)<br>if Grouse Counted<br>Average (all strutting grounds)<br>if Grouse Counted<br>ting Grounds Counted<br>ting Grounds Counted<br>Average (all strutting grounds)<br>if Grounds Counted<br>if Grouse Counted<br>if Grouse Counted<br>if Grounds Counted<br>if Groun |     |     |     |      |       |      |      |      |            |
| ting Grounds Counted6666-5de Grouse Counted681137-25de Grouse Counted681845-25Verage (all strutting grounds)1137-5titing Grounds Counted112156178-121Verage (all strutting grounds)71012Verage (all strutting grounds)71012Verage (all strutting grounds)71012Verage (all strutting grounds)Verage (all strutting grounds) </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>  :</td>   |     |     |     |      |       |      |      |      | :          |
| ale Grouse Counted     68     18     45     -     25       Verage (all strutting grounds)     11     3     7     -     5       EFrom Previous Year - Comparable Grounds     11     3     7     -     5       Re From Previous Year - Comparable Grounds     112     156     178     -     13       Iting Grounds Counted     112     156     178     -     29       Verage (all strutting grounds)     7     10     12     -     29       Verage (all strutting grounds)     7     10     12     -     -       Verage (all strutting grounds)     -     -     -     -     29       Verage (all strutting grounds)     -     -     -     -     -     29       Verage (all strutting grounds)     -     -     -     -     -     -     29       Verage (all strutting grounds)     -     -     -     -     -     -     -     -       Verage (all strutting grounds)     -     -     -     -     -     -     -     -       Verage (all strutting grounds)     -     -     -     -     -     -     -     -       Verage (all strutting grounds)     -     17     20<  | •   | . 9 |     |      | ę     | 9    | ٢    | Q    | ł          |
| Average (all strutting grounds)       11       3       7       -       5         tring Grounds Counted       16       15       15       -       -       43         tring Grounds Counted       112       156       178       -       13         ale Grouse Counted       112       16       15       17       -       29         Verage (all strutting grounds)       7       10       12       -       -       29         ge From Previous Year - Comparable Grounds       0       15       17       -       -       29         ge From Previous Vear - Comparable Grounds       -  | 18  | 45  |     |      | 26    | 46   | 25   | 42   | I          |
| ge From Previous Year - Comparable Grounds       20       -57       56       -       -43         ting Grounds Counted       112       156       178       -       121         Vverage (all strutting grounds)       7       10       12       -       -         Vverage (all strutting grounds)       7       10       12       -       -       -         Vverage (all strutting grounds)       7       10       12       -  | ••• | 7   |     |      | 4     | 80   | 4    | ٢    | ł          |
| ting Grounds Counted161515-13ale Grouse Counted112156178-121Verage (all strutting grounds)71012-29ge From Previous Year - Comparable Grounds0151729ge From Previous Vear - Comparable Grounds29king Grounds CountedAverage (all strutting grounds)Average (all strutting grounds)100Werage (all strutting grounds)17242273273-110100001171171000000000000000000000000000 <td></td> <td>56</td> <td>-</td> <td>13 –</td> <td>16</td> <td>77</td> <td>-24</td> <td>24</td> <td></td>   |     | 56  | -   | 13 – | 16    | 77   | -24  | 24   |            |
| ting Grounds Counted1615151513ale Grouxe Counted112156178-121Verage (all strutting grounds)71012-9ge From Previous Year - Comparable Grounds0151729ge From Previous Vear - Comparable GroundsAverage (all strutting grounds)Average (all strutting grounds)Average (all strutting grounds)Average (all strutting grounds)17242273-190Average (all strutting grounds)1724017Average (all strutting grounds)172017-16Average (all strutting grounds)Average (all strutting grounds)Average (all strutting grounds)16Average (all strutting grounds)<   |     |     |     |      |       |      |      |      |            |
| ale Grouse Counted     112     156     178     -     121       Vverage (all strutting grounds)     7     10     12     -     9       ge From Previous Year - Comparable Grounds     0     15     17     -     -       ting Grounds Counted     -     -     -     -     -     -       the Grouse Counted     -     -     -     -     -     -       ale Grouse Counted     -     -     -     -     -     -     -       Average (all strutting grounds)     -     -     -     -     -     -     -       Se From Previous Vear - Comparable Grounds     -     -     -     -     -     -     -       Average (all strutting grounds)     17     242     273     -     190       Average (all strutting grounds)     17     242     273     -     190       Average (all strutting grounds)     17     242     273     -     190       Average (all strutting grounds)     -     -     -     -     -     -       ef From Previous Vear - Comparable Grounds     56     40     -21     -     -       Mu FORME     -     -     -     -     -     -   |     | 15  |     |      | 1 14  | L    | 11   | 15   | . <b>I</b> |
| Average (all strutting grounds)       7       10       12       9         ge From Previous Year - Comparable Grounds       0       15       17       -       -29         ting Grounds Counted       -       -       -       -       -       -       -         ting Grounds Counted       -       190       No       No       117       20       17       -       116       No       -       116       No       -       116       -       -       -       -       -       -       -       -       116       No       No       No       No       No  |     | 178 |     | _    | 7 104 | 9    | 76   | 173  | I          |
| ge From Previous Year - Comparable Grounds     0     15     17     -     -29       titing Grounds Counted     -     -     -     -     -     -       Ale Grouse Counted     -     -     -     -     -     -       Average (all strutting grounds)     -     -     -     -     -     -       ge From Previous Year - Comparable Grounds     -     -     -     -     -     -       ge From Previous Year - Comparable Grounds     17     242     273     -     190       Average (all strutting grounds)     17     20     17     -     -       Be From Previous Year - Comparable Grounds     56     40     -21     -       Average (all strutting grounds)     -     -     -     -     -       Be From Previous Year - Comparable Grounds     -     -     -     -     -       Average (all strutting grounds)     -     -     -     -     -     -       Average (all strutting grounds)     -     -     -     -     -     -       Average (all strutting grounds)     -     -     -     -     -     -       Average (all strutting grounds)     -     -     -     -     -     - <td></td> <td>12</td> <td></td> <td></td> <td>7</td> <td>I</td> <td>7</td> <td>12</td> <td>1</td>   |     | 12  |     |      | 7     | I    | 7    | 12   | 1          |
| tting Grounds Counted<br>ale Grouse Counted<br>Average (all strutting grounds)<br>ge From Previous Vear - Comparable Grounds<br>tting Grounds Counted<br>tting Grounds Counted<br>tting Grounds Counted<br>Average (all strutting grounds)<br>ge From Previous Vear - Comparable Grounds<br>from Grounds Counted<br>tting Grounds Counted<br>Average (all strutting grounds)<br>tting Grounds Counted<br>tting Grounds Counted   |     | 17  |     | - 60 | -12   | -83  | 167  | 22   | I          |
| tting Grounds Countedale Grouse CountedAverage (all strutting grounds)ge From Previous Year - Comparable Groundsge From Previous Vear - Comparable Grounds101216190Average (all strutting grounds)174242273190Average (all strutting grounds)174242273190Average (all strutting grounds)177201716ge From Previous Year - Comparable Groundsdroug Groundsdring Groundsdring Groundsdring Groundsdring Grounds </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>  .</td>   |     |     |     |      |       |      |      |      | .          |
| ale Grouse Counted       -       130       -       130       -       130       -       -       130       -       -       130       - <td< td=""><td>1</td><td>1</td><td></td><td></td><td>I</td><td>7</td><td>1</td><td>ł</td><td>1</td></td<>   | 1   | 1   |     |      | I     | 7    | 1    | ł    | 1          |
| Average (all strutting grounds)ge From Previous Year - Comparable Groundsge From Previous Vear - Comparable Grounds10121612thing Grounds Counted174242273190Average (all strutting grounds)17201716Average (all strutting grounds)17201716ge From Previous Year - Comparable Grounds5640-21diring Groundsge From Previous Year - Comparable GroundsAverage (all strutting grounds)fting Grounds CountedAverage Countedding Grounds CountedAverage CountedAverage (all strutting grounds)Average (all strutting grounds)Average (all strutting grounds) <td>ł</td> <td>ł</td> <td></td> <td>•</td> <td>1</td> <td>5</td> <td>1</td> <td></td> <td>1</td>  | ł   | ł   |     | •    | 1     | 5    | 1    |      | 1          |
| ge From Previous Year - Comparable Grounds       -       12       13       13       13       130       -       190       -       11       100       -       11       11       100       -       11       11       100       -       11       11       100       -       110       -       110       -       110       -       110       -       110       -       110       -       110       -       110       -       110       -       110       -       110       -       110       -       110       -       110       -       110       -       110       -       110       -       -  | ł   | I   |     |      | 1     | ŝ    | ł    | I    | 1          |
| ting Grounds Counted     10     12     16      12       ale Grouse Counted     174     242     273      190       Average (all strutting grounds)     17     20     17      16       ge From Previous Year - Comparable Grounds     56     40     -21      -21       ting Grounds Counted          -21       ale Grouse Counted              Average (all strutting grounds)              Average (all strutting grounds)              Average (all strutting grounds)              Average (all strutting grounds)              Average from Previous Vear - Comparable Grounds             At TOTALS               ale Grouse Counted  | I   | I   |     |      | I     | •    | ł    | I    | ł          |
| tring Grounds Counted     10     12     16      12       ale Grouse Counted     174     242     273      190       Average (all strutting grounds)     17     20     17      16       Average (all strutting grounds)     17     20     17      16       ge From Previous Year - Comparable Grounds     56     40     -21         ting Grounds Counted             ale Grouse Counted             Average (all strutting grounds)             Average (all strutting grounds)             Average (all strutting grounds)             Average (all strutting grounds)             Atom Previous Year - Comparable Grounds            Atom Previous Vear - Comparable Grounds            Atom Previous Vear - Comparable Grounds        <   |     |     |     |      |       |      |      |      |            |
| ale Grouse Counted 174 242 273 190<br>Average (all strutting grounds) 17 20 17 16<br>ge From Previous Year - Comparable Grounds 56 40 -21 21<br>tting Grounds Counted  |     | 16  |     |      | 14    | น    | 20   | 20   | ł          |
| Average (all strutting grounds)17201716ge From Previous Year - Comparable Grounds5640-2121ting Grounds Counted21ale Grouse CountedAverage (all strutting grounds)ge From Previous Year - Comparable GroundsAt TOTALS31373730ale Grouse Counted364416396336   |     | 573 |     |      | 6 159 | 468  | 266  | 321  | 1          |
| ge From Previous Year - Comparable Grounds     56     40     -21      -1       tting Grounds Counted             ale Grouse Counted             Average (all strutting grounds)            Average (all strutting grounds)            Arenge (all strutting grounds)            Arenge (all strutting grounds)            Arenge (all strutting grounds)            At TOTALS             At Grouse Counted     32     33     37      36   |     | 17  |     |      | 11    | 21   | 13   | 16   | I          |
| tting Grounds Counted  |     | -21 |     |      | -26   | £6   | ş    | •    | 1          |
| tting Grounds Counted  |     |     |     |      |       |      |      |      |            |
| unted  | :   | 1   | •   | •    | 1     | 7    | 7    | I    | 1          |
| trutting grounds)  | I   | I   |     |      | 1     | 77   | 22   | I    | ;          |
| ious Year - Comparable Grounds   | 1   | 1   |     |      | 1     | Π    | 11   | ł    | 1          |
| s Counted 32 33 37 30<br>nuted 364 416 396 - 336   | 1   | 1   |     |      | 1     | 120  | 0    | 1    | ł          |
| s Counted 32 33 37 30<br>nuted 364 416 396 - 336   |     |     |     |      |       |      |      |      |            |
| 364 416 396 - 336  |     | 37  |     |      | 34    | 37   | 40   | 41   | ł          |
|  |     | 396 | - 3 |      |       | 550  | 389  | 536  | ł          |
| Average Grouse Per Ground (all strutting grounds) 11 13 13 11 10   |     | 13  |     |      | •     | 15   | 10   | 13   | ł          |
|  |     | •   | -   |      | -18   | 37   | -37  | 6    | I          |

ahle 1 (continued)

| Table 1 (continued)                               |          |       |            |      |            |       |           |          |            | l           |             |
|---|----------|-------|------------|------|------------|-------|-----------|----------|------------|-------------|-------------|
| Region and  |          | 1     |            |      |            | Year  |           |          |            |             |             |
| County  | 1981     | 1982  | 1983       | 1984 | 1985       | 1986  | 1987      | 1988     | 1989       | 1990        | 1991        |
| Southeastern Region                               |          |       |            |      |            |       |           |          |            |             |             |
| Carbon  |          |       |            |      |            |       |           |          |            |             |             |
| No. Strutting Grounds Counted                     | ¢        | 1     | -          | ;    | <b>1</b>   | 1     | ٢         | 10       | 10         | 6           | <b>80</b> . |
| Total Male Grouse Counted                         | 7        | •     | 16         | ł    | ł          | 32    | 55        | 196      | 181        | 146         | 103         |
| County Average (all strutting grounds)            | <b>6</b> | 1     | 16         | ł    | 1          | 16    | œ         | 20       | 18         | 16          | 13          |
| % Change From Previous Year - Comparable Grounds  |          | ł     | 100*       | 1    | ı          | 1     | -27       | 142      | Ŷ          | - <b>38</b> | Ŧ           |
| Emery   |          |       |            |      |            |       |           |          |            |             |             |
| No. Strutting Grounds Counted                     | I        | 7     | ł          | I    | -          | -     | 7         | 7        | 7          | 2           | 7           |
| Total Male Grouse Counted                         | I        | •     | ł          | ł    | 12         | 11    | 10        | 12       | 28         | Ś           | ٢           |
| County Average (all strutting grounds)            | ł        | s     | ł          | ł    | 12         | 11    | Ŵ         | ¢        | 14         | ••          | 4           |
| % Change From Previous Year - Comparable Grounds  | ł        | 1     | 1          | :    | 1          | Ŷ     | -18       | 50       | 167        | -82         | 6           |
| San Juan  |          |       |            |      |            |       |           |          |            |             |             |
| No. Strutting Grounds Counted                     | 4        | 4     | 9          | 4    | 4          | 4     | 4         | 4        | 4          | 4           | 4           |
| Total Male Grouse Counted                         | 3        | 47    | <b>2</b> 0 | 57   | <b>6</b> E | 29    | 35        | 32       | <b>6</b> € | 41          | 32          |
| County Average (all strutting grounds)            | 16       | 12    | 10         | 14   | 10         | ۲     | 6         | œ        | 10         | 01          | œ           |
| % Change From Previous Year - Comparable Grounds  | 65       | -25   | 52         | -14  | -29        | -26   | 28        | <u>6</u> | 22         | 2           | <u>;</u>    |
| REGIONAL TOTALS                                   |          |       |            |      |            |       |           |          |            |             |             |
| No. Strutting Grounds Counted                     | 10       | ٢     | ٢          | 4    | 4          | -     | 13        | 16       | 16         | 15          | •           |
| Total Male Grouse Counted                         | 65       | 56    | 75         | 51   | ŝ          | 2     | 100       | 240      | 248        | 192         | 47          |
| Average Grouse Per Ground (all strutting grounds) | 7        | 8     | Π          | 14   | 10         | 9     | <b>ee</b> | 15       | 16         | 13          | œ           |
| % Change From Previous Year - Comparable Grounds  | 58       | -28   | 34         | -14  | -29        | -26   | •         | 74       | •          | -35         | 7           |
| STATE TOTALS                                      |          |       |            |      |            |       |           |          |            |             | ł           |
| No. Strutting Grounds Counted                     | 154      | 121   | 113        | 43   | 97         | 118   | 126       | 137      | 119        | 130         | Ц           |
| Total Male Grouse Counted                         | 2,469    | 2,089 | 1,711      | 664  | 1,234      | 1,708 | 1,818     | 2,734    | 2,041      | 2,660       | 574         |
| Average Grouse Per Ground (all strutting grounds) | 16       | 17    | 15         | 15   | 13         | 14    | 14        | 50       | 17         | 20          | <b>3</b> 0  |
| % Change From Previous Year - Comparable Grounds  | ¢,       | 7     | œ          | -18  | -1         | 5     | 2         | રા       | 14         | 5           | ÷           |
|   |          |       |            |      |            |       |           |          |            | ľ           |             |

|                     |     | Distinct    |              |       | Mixed Young  |     |            |            |       |            |           |            |                 |          |       |         |
|---------------------|-----|-------------|--------------|-------|--------------|-----|------------|------------|-------|------------|-----------|------------|-----------------|----------|-------|---------|
| Region and          |     | Broads      |              | Mean  | & Adults     |     | Adults w/o | Total      | Total | Young/     | Vehicle   |            | Hours of Effort | f Effort |       | Birds/  |
| County              | -   | Adults Youn | Young        | Brood | Adults Young |     | Young      | Adults     | Young | 100 Adults | Miles     | Vehicle    | Horse Walk      | Walk     | Total | 100 IIr |
| Northern Region     |     |             |              |       |              |     |            |            |       |            |           |            |                 |          |       |         |
| Box Elder           | 17  | 17          | 3            | 3.71  | 7            | Π   | 27         | 46         | 74    | 161        | 213       | 30         | 69              | 20       | 119   | 101     |
| Cache               | :   | ł           | I            | ł     | ł            | 1   | ł          | 1          | :     | I          | :         | I          | 1               | I        | ı     | I       |
| Davis               | :   | ł           | 1            | ı     | I            | ł   | 1          | ł          | I     | ı          | I         | ľ          | 1               | ł        | 1     | 1       |
| Morgan              | I   | I           | 1            | ł     | ł            | I   | 1          | ł          | 1     | 1          | 1         | ł          | I               | I        | I     | 1       |
| Rich                | 16  | 16          | <del>8</del> | 3.00  | 12           | 34. | 94         | 122        | 8     | 61         | 341       | 8          | 4               | ł        | 67    | 304     |
| Summit              | 1   | ł           | ł            | I     | 1            | ł   | 1          | ł          | 1     | ł          | 1         | 25         | . 1             | I        | 25    | 1       |
| Weber               | I   | I           | I            | ı     | ł            | 1   | ;          | ł          | ı     | 1          | ł         | 1          | ł               | I        | I     | ł       |
| REGIONAL TOTALS     | 33  | 3           | III          | 3.36  | 14           | 45  | 121        | 168        | 156   | 93         | 554       | 118        | 73              | 8        | 211   | 154     |
| Central Region      |     |             |              |       |              |     |            |            |       |            |           |            |                 |          |       |         |
| Juab                | I   | I           | 1            | 1     | ł            | 1   | 1          | ł          | 1     | <b>I</b>   | 8         | 9          | I               | I        | 9     | i       |
| Salt Lake           | 1   | 1           | I            | ł     | I            | :   | •          | 1          | 1     | I          | ł         | I          | ł               | I        | ł     | I       |
| Sanpete             | I   | :           | I            | 1     | I            | 1   | :          | 1          | I     | ł          | 1         | I          | ı               | I        | Ì     | ł       |
| Tooele              | ¢   | φ           | 23           | 3.83  | 7            | 20  | 7          | 15         | 43    | 287        | 155       | <b>●</b> ` | Ĺ               | ŝ        | 14    | 414     |
| Utah                | 1   | 1           | 12           | 12.00 | l            | I   | 1          | -          | 12    | 1,200      | 22        | 1          | ł               | I        | -     | 1,300   |
| Wasatch             | I   | ;           | 1            | 1     | i            | ı   | !          | 1          | I     | I          | 1         | 1          | :               | I        | I     | I       |
| REGIONAL TOTALS     | -   | 1           | 35           | 5.00  | 1            | 20  | 2          | 16         | 55    | 344        | 270       | 16         | I               | S        | 21    | 338     |
| Southern Region     |     |             | 0            |       |              |     |            |            |       |            |           |            |                 |          |       |         |
| Beaver              | I   | ł           | 1            | 1     | ł            | 1   | ł          | ı          | 1     | I          | 1         | ï          | I               | I        | I     | I       |
| Garfield            | ••• | <b>m</b>    | 18           | 6.00  | I            | 1   | 11         | 14         | 18    | 129        | I         | ŝ          | IN .            | 1        | 10    | 320     |
| Iron                | -   | -           | S            | 5.00  | 1            | ¢   | H          | 14         | 14    | 100        | ı         | 1          | ٢               | 1        | -     | 400     |
| Kane                | ł   | ţ           | 1            | ı     | ł            | ł   | ł          | ł          | :     | :          | 1         | I          | ł               | I        | 1     | 1       |
| Millard             | :   | I           | I            | ı     | ł            | I   | 1          | <b>;</b>   | ł     | 1          | 1         | I          | I               | I        | ł     | 1       |
| Pinte               | I   | 1           | I.           | ı     | 1            | ŧ   | 1          | I          | 1     | :          | ł         | I          | 1               | I        | I     | I       |
| Sevier              | T   | -           | Ś            | ı     | ł            | 1   | ł          | 1          | ŝ     | 500        | 30        | 4          | I               | ŧ        | 4     | 150     |
| Washington          | 1   | 1           | ł            | ł     | ł            | I   | I          | 1          | 1     | ł          | 1         | I          | I               | 1.       | ı     | ł       |
| Wayne               | 1   | 1           | 1            | 5.00  | 1            | I   | ł          | 1          | :     | 478        | 1         | :          | I               | I        | 1     | 511     |
| REGIONAL TOTALS     | S   | S           | 28           | 5.60  | 2            | 9   | 22         | 29         | 37    | 128        | 30        | ¢          | 12              | 1        | 12    | 314     |
| Northeastern Region |     |             |              |       |              |     |            |            |       |            |           |            |                 |          |       |         |
| Daggett             | 2   | 7           | 4            | 2.00  | ł            | 9   | ł          | 7          | 13    | 650        | ŝ         | 7          | :               | 1        | 6     | 1,000   |
| Duchesne            | 17  | 7           | •0           | 4.00  | ł            | I   | •          | Ś          | œ     | 160        | 50        | 2          | 1               | 4        | 16    | 81      |
| Uintah              | 3   | 3           | 6            | 2.00  | 8            | 18  | 10         | 21         | 24    | 114        | 35        | 9          | I               | 1        | ÷     | 1,500   |
| REGIONAL TOTALS     | 7   | 1           | 18           | 2.57  | æ            | 27  | 13         | 28         | 45    | 161        | 60        | 17         | I               | 4        | 21    | 356     |
| Southeastern Region |     |             |              |       |              |     |            |            |       |            |           |            |                 |          |       |         |
| Carbon              | -   | -           | Ŷ            | 6.00  | 1            | ı   | •          | <b>6</b> 0 | 9     | 200        | <b>SS</b> | 10         | 1               | ì        | 10    | 8       |
| Emery               | I   | l           | ł            | 1     | 1            | I   | ł          | ł          | 1     | ł          | I         | I          | I               | ı        | 1     | I       |
| Grand               | ł   | ;           | ł            | 1     | ł            | ł   | 1          | 1          | 1     | I          | 1         | I          | 1               | I        | I     | 1       |
| San Juan            | -   | 1           | 2            | 2.00  | I            | 1   | 1          | 1          | 2     | 200        | 31        | 9          | 1               | T        | Ð     | 100     |
| REGIONAL TOTALS     | 7   | 2           | 8            | 4.00  | I            | 1   | 3          | 5          | 8     | 160        | 86        | 13         | 1               | 1        | 13    | 100     |
|                     |     |             |              |       |              |     |            |            |       |            |           |            |                 |          |       |         |

| Table 3. Trend of sage grouse young per 100 adults, 1981-91 | trouse youn | g per 100 ad | ults, 1981-91 | _        |               |       |      |          |      |            |          |         |
|---|-------------|--------------|---------------|----------|---------------|-------|------|----------|------|------------|----------|---------|
| Region and  |             |              |               |          |               | Year  |      |          |      |            |          | Average |
| County  | 1981        | 1982         | 1983          | 1984     | 1985          | 1986  | 1987 | 1988     | 1989 | 1990       | 1661     | 1981-90 |
| Northern Region   |             |              |               |          |               |       |      |          |      |            |          |         |
| ikax Elder  | 8           | 127          | 135           | 75       | 365           | 178   | 94   | 108      | 167  | 267        | 191      |         |
| Cache   | 122         | I            | ı             | 1        | <b>1</b><br>: | ł     | ı    | ı        | 1    | <b>S0</b>  | <b>1</b> |         |
| Davis   | 1           | ı            | I             | :        | I             | :     | ł    | 1        | 1    | ł          | 1        |         |
| Morgan  | 120         | 1            | 240           | ł        | 300           | :     | 500  | ;        | 117  | ł          | 1        |         |
| Rich  | 85          | 8            | 1             | 164      | 96            | 16    | 116  | 153      | . 1  | 100        | 67       |         |
| Summit  | 114         | 80           | 67            | ı        | 400           | 167   | 59   | ;        | ;    | t          | I        | •       |
| Weher   | ł           | I            | ł             | 1        | ;             | 1     | ı    | 1        | 1    | 1          | 1        |         |
| REGIONAL TOTALS   | 82          | 2            | 145           | 126      | 130           | - 103 | 115  | 135      | 156  | 235        | 8        | 132     |
| Central Region  |             |              |               |          |               |       |      |          |      |            |          |         |
| Juab  | 245         | ł            | 1             | ł        | ł             | 1     | :    | 380      | 250  | 196        | 1        |         |
| Salt Lake   | ;           | ļ            | ı             | :        | I             | :     | 1    | I        | 1    | 4          | ł        |         |
| Sourpete  | 348         | 314          | 305           | ł        | 1             | ł     | :    | 1        | ;    | ;          | 1        |         |
| Tonele  | 101         | 107          | 176           | 100      | 125           | 901   | 207  | 100      | 194  | 110        | 287      |         |
| Utah  | 1           | I            | ;             | I        | - 1           | :     | 1    | 150      | 1    | 1          | 1.200    |         |
| Wasatch   | 236         | 166          | 157           | 175      | 43            | 200   | 209  | 300      | :    | 667        | . 1      |         |
| REGIONAL TOTALS   | 171         | 509          | 214           | 155      | 3             | 120   | 209  | 135      | 177  | 166        | 344      | 162     |
| Southern Region   |             |              |               |          |               |       |      |          |      |            |          |         |
| Beaver  | 104         | 32           | ı             | 400      | 43            | ı     | 35   | <b>1</b> | ı    | 1          | ł        |         |
| Garfield  | 8           | 128          | 133           | 140      | 229           | 125   | 144  | 144      | 40   | 16         | 129      |         |
| Iron  | 113         | 148          | 150           | 83       | ı             | 250   | 198  | 146      | 155  | 264        | 100      |         |
| Kane  | I           | 1            | 1,000         | <b>I</b> | ł             | ł     | 400  | I        | ł    | ł          | 1        |         |
| Millard   | I           | t            | :             | ı        | 1             | 1     | :    | ł        | I    | ł          | I        |         |
| Piute   | I           | ł            | :             | ı        | I             | 1     | 38   | I        | 1    | I          | 1        |         |
| Sevier  | I           | 1            | I             | :        | ł             | ł     | 1    | 1        | 525  | I.         | 500      |         |
| Washington  | ł           | ı            | I             | 1        | 1             | ;     | 1    | ı        | ł    | 1          | I        |         |
| Wayne   | 263         | 193          | 104           | 411      | 152           | 44    | 455  | 86       | t    | 168        | 478      |         |
| <b>REGIONAL TOTALS</b>                                      | 154         | 130          | 98            | 92       | 137           | 105   | 216  | 127      | 135  | 154        | 128      | 135     |
| Northeastern Region   |             |              |               |          |               |       |      |          |      |            |          |         |
| Daggedt   | 230         | 369          | 82            | 250      | 170           | 190   | 124  | 181      | 433  | <b>233</b> | 650      |         |
| Duchesne  | 235         | 305          | 240           | 145      | 297           | 180   | 137  | 288      | 217  | 609        | 160      |         |
| Uintah.   | 253         | 183          | 375           | 67       | 261           | 127   | 192  | 164      | 148  | 352        | 114      |         |
| <b>REGIONAL TOTALS</b>                                      | 242         | 237          | 265           | 126      | 255           | 131   | 159  | 172      | 155  | 374        | 161      | 212     |
| Southeastern Region   |             |              |               |          |               |       |      |          |      |            |          |         |
| Carthon   | 64          | 1            | I             | 238      | 400           | 133   | 150  | 1        | 56   | 33         | 200      |         |
| Emery   | ł           | ł            | 1             | I        | ł             | :     | :    | ł        | ł    | ł          | ı        |         |
| Grand   | ı           | ł            | 1             | ı        | 1             | 1     | ı    | 1        | 1    | 1          | I        |         |
| San Juan  | 350         | 1            | 51            | 500      | 88            | 60    | :    | 200      | 50   | 50         | 200      |         |
| <b>REGIONAL TOTALS</b>                                      | 83          | . 1          | 57            | 267      | 122           | 81    | 150  | 200      | 55   | 88         | 160      | 110     |
| STATE TOTALS  | 142         | 179          | 202           | 125      | 147           | 114   | 160  | 145      | 147  | 183        | 122      | 154     |
|   |             |              |               |          |               |       |      |          |      |            |          |         |

ļ

-

Table 4. Trend of average brood size for sage grouse, 1981-91.

| County                 | 1981        | 1982     | 1983 | 1984 | 1985 | 1986 | 1987 | 1988  | 1989  | 0661 | 1991     | 1981-90 |
|------------------------|-------------|----------|------|------|------|------|------|-------|-------|------|----------|---------|
| Northern Region        |             |          |      |      |      |      |      |       |       |      |          |         |
| Box Elder              | 3.97        | 3.92     | 5.00 | 5.75 | 5.31 | 3.57 | 3.88 | 33.80 | 3.80  | 4.25 | 3.71     |         |
| Cache                  | 3.50        | I        | ł    | . 1  | ł    | ł    | 1    | I     | 1     | 5.00 | ı        |         |
| Davis                  | ł           | 1        | ı,   | T    | I    | ł    | 1    | ;     | 1     | 1    | ı        |         |
| Могдал                 | <b>5.14</b> | I        | 4.20 | 1    | 3.00 | 1    | 5.00 | ı     | 7,00. | 1    | <b>;</b> |         |
| Rich                   | 3.67        | 4.4S     | I    | 3.92 | 3.96 | 5.08 | 5.00 | 4.27  | ı     | 2.00 | 3.00     |         |
| Summit                 | 3.67        | 2.67     | 3.33 | ;    | 1    | 4.00 | 5.00 | 4.00  | t     | 1    | ł        |         |
| Weber                  | 1           | ł        | ł    | I    | ł    | 1    | 1    | ł     | ł     | 1    | 1        |         |
| REGIONAL TOTALS        | 3.94        | 4.00     | 4.25 | 4.36 | 4.39 | 4.74 | 4.82 | 4.17  | 4.30  | 3.67 | 3.36     | 4.26    |
| Central Region         |             |          |      |      |      |      |      |       |       |      |          |         |
| Juab                   | 2.00        | I        | ı    | :    | 1    | I    | :    | 6.33  | 4.00  | 4.75 | ı        |         |
| Salt Lake              | 1           | <b>1</b> | ı    | 1    | 1    | I    | I    | I     |       | 1    | 1        |         |
| Sanpete                | 4.80        | 6.36     | 5.93 | ı    | :    | ł    | 1    | ł     | I     | ı    | 1        |         |
| Tooele                 | 3.00        | 3.33     | 4.33 | 3.33 | 3.29 | 3.25 | 3.60 | 3.50  | 3.00  | 3.13 | 3.83     |         |
| Utah                   | 1           | 1        | 1    | ł    | 1    | I    | :    | ı     | ;     | I    | 12.00    |         |
| Wasatch                | 3.83        | 4.81     | 3.14 | 4.90 | 2.00 | 5.00 | 6.94 | 6.00  | I     | 6.67 | 1        |         |
| REGIONAL TOTALS        | 3.44        | 5.32     | 4.37 | 4.54 | 2.56 | 3.60 | 5.42 | 4.29  | 3.40  | 4.27 | 5.00     | 4.12    |
| Southern Region        |             |          |      |      |      |      |      |       |       |      |          |         |
| Beaver                 | 5.50        | 4.00     | 1    | 4.00 | 5.00 | 1    | 5.00 | 1     | ı     | ł    | I        |         |
| Garfield               | 4.50        | 3.43     | 3.43 | 4.00 | 4.50 | 2.00 | 4.00 | 4.60  | ı     | 4.00 | 6.00     |         |
| Iron                   | 3.57        | 6.40     | 3.00 | 3.50 | ł    | 4.00 | 4.64 | 3.67  | 4.66  | 6.00 | S.00     |         |
| Kane                   | I           | ł        | 5.00 | 1    | 1    | ı    | 4.00 | I     | 1     | I    | I        |         |
| Millard                | t           | ı        | 1    | 1    | ;    | 1    | ı    | ı     | ı     | 1    | ı        |         |
| Piute                  | I           | I        | ı    | ł    | ł    | ;    | 1    | ;     | I     | ł    | ı        |         |
| Serier                 | I           | 1        | I    | ł    | 1    | ŀ    | 1    | 7.00  | 1     | I    | ı        |         |
| Washington             | I           | t        | ł    | ł    | 1    | ł    | ł    | ı     | I     | ı    | I        |         |
| Wayne                  | 3.96        | 4.43     | 3.67 | 5.00 | 3.57 | 6.00 | 6.14 | 6.29  | 1     | 4.30 | 5.00     |         |
| REGIONAL TOTALS        | 3.93        | 4.52     | 3.62 | 4.27 | 4.00 | 4.29 | 4.89 | 4.89  | 4.66  | 4.82 | S.60     | 4.39    |
| Northeastern Region    |             |          |      |      |      |      |      |       |       |      |          |         |
| Daggett                | 4.11        | 5.13     | 5.80 | 4.63 | 3.00 | 1.00 | 4.00 | 4.45  | 4.30  | 6.00 | 2.00     |         |
| Duchesne               | 3.91        | 5.32     | 4.59 | 3.77 | 4.73 | 4.29 | 3.54 | 3.60  | 2.17  | 00.9 | 4.00     |         |
| Ciotab                 | 5.27        | 4.95     | 5.13 | 3.00 | 5.00 | 5.44 | 5.55 | 4.05  | 5.15  | 5.60 | 2.00     |         |
| REGIONAL TOTALS        | 4.50        | 5.10     | 5.00 | 3.96 | 4.43 | 4.94 | 4.59 | 4.09  | 4.58  | 5.63 | 2.57     | 4.68    |
| Southeastern Region    |             |          |      |      |      |      |      |       |       |      |          |         |
| Carbon                 | ſ           | I        | 1    | 4.33 | 4.00 | 4.00 | 1.50 | ł     | 4.50  | 1    | 6.00     |         |
| Emery                  | 1           | ł        | ı    | ł    | 1    | 1    | 1    | ;     | 1     | :    | I        |         |
| Grand                  | ł           | ł        | 1    | 1    | ;    | 1    | ı    | :     | - 1   | 1    | ł        |         |
| San Juan               | 3.50        | 1        | 4.00 | 5.00 | 3.50 | 3.00 | I    | 1     | 2.00  | 1    | 2.00     |         |
| <b>REGIONAL TOTALS</b> | 3.50        | 1        | 4.00 | 4.50 | 3.67 | 3.40 | 1.50 |       | 3.67  |      | 4.00     | 3.03    |
|                        |             |          |      |      |      |      |      |       |       |      |          |         |

Average 06-1861 564 13 318 182 521 272 1,300 1,000 1,500 273 356 8 8 338 1991 414 314 155 2 511 ŝ ł ł ខ្ម Ξ 8 I. 102 ŝ 1 1 ı 1 1 386 1990 <u>8</u> 585 350 566 8 8 20 ŝ ŧ 2 3 8 1 33 Т t Ř 1 I. I ŧ ł 1,000 1,191 1989 168 123 288 휘집 : 502 1 1 1 2 741 3 3 227 ł 8 1 13 ł. 1 I 31 ł I. 1 ł 1,517 15 1988 125 542 23 5 50 118 : Ŝ 417 30 271 I. t 2 Т ł 1 5 t 1 ł 1 1 Т 1 ≈ \$ 1987 1.331 5 2 38 5 E 575 275 8 382 742 렳 83 ł 8 1 Ĩ 251 1 I t 1 t I. 1 1 I. ł 1 8 2 2 1986 813 474 Year 344 18 165 8 198 746 : 2 2 316 ž Ł 225 466 ŧ I 1 t Š. 282 21 1 ł - F L ł 1985 1 22 22 2 325 **88** 358 342 267 244 28 288 186 242 ŝ 262 ł ł 1 28 ŝ t 1 1984 · 5 3 월 314 364 122 304 415 1 ŝ 118 381 308 **\$**54 28 5 S 2 ł 5 1 1 I. 1 1 Т Table 5. Trend of sage grouse observed per 100 hours, 1981-91. 1983 1 8 8 8 63 866 631 612 392 203 III <u>5</u> 214 275 2 Ł 33 18 3 - 4 F 1 1 1 1 8 I 1,036 1982 845 808 니를 - 원충 8 144 - 28 30 202 1 1 88 춯 I 5 ÷ F 1 L 1 8 1 t 1 ,085 1981 **538** : 814 £8 135 8 627 3 4 1 513 239 8 ŧ 8 ł ł. 1 E 32 E ÷ 88 I I 1 **REGIONAL TOTALS REGIONAL TOTALS REGIONAL TOTALS** REGIONAL TOTALS **REGIONAL TOTALS** Northenstern Region Southeastern Region STATE TOTALS Region and Southern Region Northern Region County **Central Region** Washington Duchesne Salt Lake San Juan **Box Elder** Wasatch Carbon Garfield Sanpete Wayne Daggett Morgan Emery Beaver Grand Millard Uimtah Snmmit Weber Tooele Sevier Cache Juab Davis Kane Piute Rich Utah 2

Table 6. Summary of sage grouse hunter success and distribution of harvest and hunter pressure by region and county, 1991.

| REGION AND<br>COUNTY | SAMPLE<br>SIZE* | HUNTER-DAYS<br>AFIELD | BIRDS<br>BAGGED | BIRDS PER<br>HUNTER-DAY | も OF<br>PRESSURE | % OF<br>HARVEST |
|----------------------|-----------------|-----------------------|-----------------|-------------------------|------------------|-----------------|
| NORTHERN REGION      | · · · · ·       |                       |                 |                         |                  |                 |
| BOX ELDER            | 81              | 2,818                 | 1,548           | 0.55                    | 15.16            | 12.34           |
| CACHE * *            | 32              |                       | 330             | 0.32                    | 5.61             |                 |
| DAVIS**              | 4               | 191                   | 34              | 0.18                    | 1.03             | 2.64            |
| MORGAN * *           | 6               | 243                   | 226             | 0.93                    |                  | 0.28            |
| RICH                 | 85              | 3,061                 | 3,079           | 1 01                    | 1.31             | 1.80            |
| SUMMIT**             | 8               | 417                   | 278             | 1.01                    | 16.46            | 24.55           |
| WEBER**              | 17              | 1,078                 | 365             | 0.67<br>0.34            | 2.25<br>5.80     | 2.22<br>2.91    |
| REGIONAL TOTALS      | 233             | 8,854                 | 5,862           | 0.66                    | 47.62            | 46.74           |
| CENTRAL REGION       |                 |                       |                 |                         |                  |                 |
| JUAB**               | 7               | 226                   | 121             | 0.54                    | 1.22             | 0.97            |
| SALT LAKE**          | 4               | 173                   | 121             | 0.70                    | 0.94             | 0.97            |
| SANPETE * *          | 6               | 278                   | 121             | 0.44                    | 1.50             | 0.97            |
| TOOELE * *           | 10              | 347                   | 121             | 0.35                    | 1.87             | 0.97            |
| UTAH * *             | 9               | 243                   | 208             | 0.86                    | 1.31             | 1.66            |
| WASATCH**            | 11              | 330                   | 156             | 0.47                    | 1.78             | 1.25            |
| REGIONAL TOTALS      | 47              | 1,600                 | 852             | 0.53                    | 8.61             | 6.80            |
| SOUTHERN REGION      |                 |                       |                 |                         |                  |                 |
| BEAVER               | 4               | 121                   | 34              | 0.29                    | 0.65             | 0.28            |
| GARFIELD             | 19              | 574                   | 295             | 0.52                    | 3.09             | 2.36            |
| IRON                 | 9               | 260                   | 243             | 0.93                    | 1.40             | 1.94            |
| KANE                 | 3               | 52                    | 34              | 0.67                    | 0.28             | 0.28            |
| MILLARD**            | 8               | 260                   | 330             | 1.27                    | 1.40             | 2.64            |
| PIUTE                | 10              | 347                   | 347             | 1.00                    | 1.87             | 2.04            |
| SÉVIER               | 20              | 991                   | 382             | 0.39                    | 5.33             | 3.05            |
| WASHINGTON * *       | 1               | 34                    | 69              | 2.00                    | 0.19             |                 |
| WAYNE                | 36              | 1,235                 | 1,269           | 1.03                    | 6.64             | 0.55            |
| REGIONAL TOTALS      | 110             | 3,879                 | 3,009           | 0.78                    | 20,86            | 24.00           |
| NORTHEASTERN REGI    |                 |                       |                 |                         |                  |                 |
| DAGGETT              | 9               | 365                   | 173             | 0.48                    | 1.96             | 1.39            |
| DUCHESNE             | 17              | 521                   | 347             | 0.67                    | 2.81             | 2.77            |
| UINTAH               | 64              | 2,661                 | 1,878           | 0.71                    | 14.31            | 14.98           |
| REGIONAL TOTALS      | 90              | 3,548                 | 2,400           | 0.68                    | 19.08            | 19.14           |
| SOUTHEASTERN REGI    |                 |                       |                 |                         |                  |                 |
| CARBON               | 11              | 452                   | 226             | 0.50                    | 2.43             | 1.80            |
| EMERY * *            | 4               | 139                   | 121             | 0.80                    | 0.75             | 0.97            |
| GRAND                | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| SAN JUAN**           | 3<br>           | 121                   | 69              | 0.57                    | 0.65             | 0.55            |
| REGIONAL TOTALS      | 18              | 713                   | 417             | 0.59                    | 3.84             | 3.33            |
| UNKNOWN              | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| STATE TOTALS         | 498             | 18,596                | 12,542          | 0.67                    | 100.00           | 100.00          |

2

\* Total hunter-trips from questionnare returns. \*\*Closed to sage grouse hunting in 1991.

| Region and             |              |        |         | · <u> </u> | Year   |        |        | <u> </u> |
|------------------------|--------------|--------|---------|------------|--------|--------|--------|----------|
| <u>County</u>          | 1984         | 1985   | 1986    | 1987       | 1988   | 1989   | 1990   | 1991     |
| <u>Northern Region</u> |              |        |         |            |        |        |        |          |
| Box Elder              | 0.80         | 0.73   | 0.94    | 1.05       | 0.78   | 0.94   | 0.92   | 0.55     |
| Cache                  | 0.54         | 0.21*  | 0.18*   | 0.38*      | 0.47*  | 0.45*  | 0.58   | 0.32*    |
| Davis                  | 0.18*        | 0.25*  | 0.25*   | 0.00*      | 0.00*  | 0.72*  | 0.25*  | 0.18*    |
| Morgan                 | 0.32         | 0.25*  | 0.47*   | 1.25*      | 0.36*  | 0.50*  | 0.33*  | 0.93*    |
| Rich                   | 0.50         | 0.30   | 0.58    | 0.88       | 0.81   | 0.63   | 0.85   | 1.01     |
| Summit                 | 0.23         | 0.20*  | 0.50*   | 0.55*      | 0.57*  | 0.71*  | 0.77*  | 0.67*    |
| Weber                  | 0.67         | 0.43*  | 0.57*   | 0.56*      | 0.64*  | 0.27*  | 0.43*  | 0.34*    |
| REGIONAL TOTALS        | 0.55         | 0.49   | 0.67    | 0.76       | 0.66   | 0.69   | 0.75   | 0.66     |
| Central Region         |              | -      |         |            |        |        |        |          |
| Juab                   | 0.33*        | 4.00*  | 3.00*   | 0.60*      | 0.88*  | 0.22*  | 0.20*  | 0.54*    |
| Salt Lake              | 0.25*        | 0.08*  | 2.54*   | 0.00*      | 0.50*  | 0.30*  | 0.00*  | 0.70*    |
| Sanpete                | 0.64*        | 0.44*  | 0.38*   | 0.62*      | 0.23*  | 0.61*  | 1.00*  | 0.44*    |
| -                      | 0.53*        | 0.23*  | 1.54*   | 1.10*      | 0.27   | 0.41*  | 1.15*  | 0.35*    |
| Tooele                 | 0.77*        | 0.45*  | 0.42    | 0.62       | 0.42   | 0.33   | 0.39   | 0.86*    |
| Utah                   | 0.28         | 0.19   | 0.42    | 0.58       | 0.48*  | 1.50*  | 0.55*  | 0.47*    |
| Wasatch                |              |        | 0.85    | 0.70       | 0.36   | 0.42   | 0.52   | 0.53     |
| REGIONAL TOTALS        | 0.51         | 0.46   | 0.05    | 0.70       | 0.30   | 0.42   |        |          |
| Southern Region        |              |        | 0.00    | 1 00       | 0.76   | 0 40   | 0.38   | 0.29     |
| Beaver                 | 1.29         | 0.33   | 0.90    | 1.08       | 0.76   | 0.42   | •      |          |
| Garfield               | 1.33         | 0.78   | 0.68    | 1.50       | 1.17   | 1.14   | 0.74   | 0.52     |
| Iron                   | 1.00         | 1.85   | 0.82    | 1.29       | 0.61   | 0.62   | 0.58   | 0.93     |
| Kane                   | 0.00         | 0.50   | 0.13    | 0.00       | 1.00   | 0.75   | 0.54   | 0.67     |
| Millard                | 0.67*        | 2.00*  | 0.50*   | 1.00*      | 0.00*  | 0.09*  | 3.14*  | 1.27*    |
| Piute                  | 1.44         | 0.95   | 0.50    | 0.58       | 0.95   | 1.87   | 0.50   | 1.00     |
| Sevier                 | 0.67         | 0.40   | 0.43    | 1.00       | 0.67   | 0.39   | 1.08   | 0.39     |
| Washington             | 0.00*        | 0.50*  | 0.00    | 0.00*      | 0.00*  | 0.00*  | 1.63*  | 2.00*    |
| Wayne                  | 1.25         | 1.19   | 1.19    | 0.60       | 1.30   | 1.05   | 1.04   | 1.03     |
| REGIONAL TOTALS        | 1.19         | 0.92   | 0.75    | 0.99       | 0.91   | 0.86   | 0.92   | 0.78     |
| Northeastern Reg:      | ion          |        |         |            |        |        |        | -        |
| Daggett                | 0.16         | 0.92   | 0.45    | 1.00       | 1.20   | 0.33*  | 0.73   | 0.48     |
| Duchesne               | 0.50         | 0.67   | 1.00    | 0.91       | 1.00   | 1.14   | 1.19   | 0.67     |
| Uintah                 | 0.98         | 1.08   | 1.30    | 1.25       | 1.12   | 0.98   | 0.87   | 0.71     |
| REGIONAL TOTALS        | 0:76         | 0.95   | 1.16    | 1.17       | 1.11   | 0.93   | 0.89   | 0.68     |
| Southeastern Reg.      |              |        |         |            |        |        |        |          |
| Carbon                 | 0.33*        | 0.60   | 1.24    | 1.09       | 1.04   | 0.44   | 0.29   | 0.50     |
| Emery                  | 1.50*        | 0.63   | 2.71    | 1.00       | 0.77   | 0.95   | 0.20*  | 0.88*    |
| Grand                  | 0.00         | 1.00   | 0.40    | 2.00       | 0.00   | 1.50   | 1.11   | 0.00     |
| San Juan               | <u>0.00*</u> | 0.00   | 1.33    | 0.00       | 10.00  | 0.00*  | 0.00*  | 0.50*    |
|                        | 0.90         | 0.60   | 1.44    | 1.13       | 1.40   | 0.63   | 0.47   | 0.59     |
| REGIONAL TOTALS        | 0.90         | 0.80   | 4.44.44 |            | 1.40   | 0.05   | 0.4/   |          |
| Unknown counties       | 7.50         | 5.67   | 2.00    | 0.00       | 1.63   | 0.00   | 0.00   | 0.00     |
| Closed areas           | (29.95)      | (9.04) | (10.58) | (6.06)     | (3.25) | (4.65) | (9.65) | (10.52)  |
| STATE TOTALS           | 0.72         | 0.78   | 0.84    | 0.89       | 0.76   | 0.71   | 0.78   | 0.67     |

Table 7. Summary of sage grouse bagged per hunter-day by region and county, 1984-91.

\*Closed season.

l

|                       |                      |              |             |         | Vos~                |         |             |          |
|-----------------------|----------------------|--------------|-------------|---------|---------------------|---------|-------------|----------|
| Region and<br>County  | 1984                 | 1985         | 1986        | 1987    | <u>Year</u><br>1988 | 1989    | 1990        |          |
| Northern Region       |                      |              | <u>_</u> 00 | 1301    | 1700                | 1903    | 1990        | 1991     |
| Box Elder             | 18.95                | 14.20        | 19.61       | 16.63   | 16.47               | 22.39   | 17.21       | 10 74    |
| Cache                 | 4.83                 | 1.31*        | 0.88*       |         | 4.77*               |         |             | 12.34    |
| Davis                 | 0.92                 |              | 0.35*       |         | 0.00*               | 2.72*   |             | 2.64*    |
| Morgan                | 2.60                 | 0.37*        | 2.45*       |         |                     | 2.72*   |             |          |
| Rich                  | 3.90                 | 2.80         | 4.90        | 8.12    | 1.36*               | 1.06*   |             |          |
| Summit                | 1.86                 | 0.37*        | 0.88*       |         | 12.04               | 11.65*  |             | 24.55    |
| Weber                 | 3.34                 | 1.12*        | 2.80*       |         | 1.81*               | 0.76*   |             |          |
| REGIONAL TOTALS       |                      |              | 31.87       |         | 2.61*               | 2.12*   |             |          |
| <u>Central Region</u> | <u> </u>             | 5 20.51      | .31.0/      |         | 39.09               | 43.42   | 42.24       | 46.74    |
| Juab                  | 0.37                 | * 2.98*      | 2.10*       | 0.58*   | 0.79*               | 0.30*   | 0.39*       | 0 07+    |
| Salt Lake             | 0.18                 |              | 5.78*       |         | 0.11*               |         | +           |          |
| Sanpete               | 1.30                 |              | 1.58*       | 3.48*   | 1.25*               | 0.45*   |             |          |
| Tooele                | 1.48                 |              | 3.50*       | 4.25*   |                     | 2.57*   |             |          |
| Utah                  | 5.02                 |              |             |         | 1.81                | 2.27    | 1.96*       |          |
| Wasatch               |                      |              | 3.85        | 4.64    | 2.15                | 3.18    | 2.09        | 1.66*    |
| REGIONAL TOTALS       | <u>1.86</u><br>10.22 | 0.75         | 2.63*       |         | 1.81*               | 0.91    | 0.78*       | <u> </u> |
| Southern Region       | 10.22                | 10.05        | 19.44       | 14.31   | 7.95                | 9.68*   | 6.39_       | 6.80     |
| Beaver                | 1.67                 | 1.12         | 1.58        | E 43    | 1 01                | 0 - 6   |             |          |
| Garfield              | 9.66                 | 6.54         | 4.38        | 5.41    | 1.81                | 0.76    | 0.65        | 0.28     |
| Iron                  |                      |              |             | 4.64    | 3.86                | 8.62    | 7.17        | 2.36     |
| Kane                  | 1.30                 | 4.48         | 2.45        | 3.48    | 1.59                | 2.42    | 1.43        | 1.94     |
|                       | 0.00                 | 0.18         | 0.18        | 0.00    | 0.11                | 0.45    | 0.91        | 0.28     |
| Millard               | 0.74                 |              | 0.18*       | 0.38*   | 0.00*               | 0.15*   | 2.87*       | 2.64*    |
| Piute                 | 4.27                 | 3.36         | 0.35        | 1.35    | 2.04                | 4.24    | 0.65        | 2.77     |
| Sevier                | 1.48                 | 1.12         | 1.75        | 2.32    | 5.00                | 1.97    | 6.78        | 3.05     |
| Washington            | 0.00,                |              | 0.00*       | 0.00*   | 0.00*               | 0.00*   | 1.69*       |          |
| Wayne                 | 7.44                 | 8.03         | 6.65        | 2.32    | 8.40                | 6.51    | <u>6.39</u> | 10.13    |
| REGIONAL TOTALS       | 26.58                | 27.10        | 17.50       | 19.92   | 22.84               | 25.11   | 28.55       | 24.00    |
| Northeastern Rec      |                      |              |             |         |                     |         |             |          |
| Daggett               | 0.55                 | 2.24         | 0.88        | 2.32    | 2.04                | 0.76*   | 3.78        | 1.39     |
| Duchesne              | 2.60                 | 5.23         | 3.68        | 4.06    | 2.61                | 3.63    | 4.82        | 2.77     |
| Uintah _              | <u>15.98</u>         | <u>19.43</u> | 18.21       | 23.21   | 17.61               | 12.41   | 11.8        | 14.98    |
| REGIONAL TOTALS       | 19.15                | 26.91        | 22.78       | 29.59   | 22.27               | 16.79   | 20.47       | 19.14    |
| Southeastern Rec      |                      |              |             |         |                     |         |             |          |
| Carbon                | 0.92*                |              | 3.68        | 2.32    | 2.95                | 1.66    | 0.91        | 1.80     |
| Emery                 | 3.90*                |              | 3.33        | 0.19    | 1.13                | 2.87    | 0.13*       | 0.97*    |
| Grand                 | 0.00                 | 0.18         | 0.35        | 0.77    | 0.00                | 0.45    | 1.30        | 0.00     |
| San Juan _            | 0.00*                |              | 0.70        | 0.00    | 2.27                | 0.00*   | 0.00*       | 0.55*    |
| REGIONAL TOTALS       | 4.83                 | 2.24         | 8.06        | 3.28    | 6.36                | 4.99    | 2.35        | 3.33     |
| Unknown counties      | 2.78                 | 12.71        | 0.35        | 0.00    | 1.47                | 0.00    | 0.00        | 0.00     |
| Closed areas          | (14.83)              | (11.47)      | (23.09)     | (16.79) | (14.51)             | (14.52) | (13.81)     | (21.36)  |
| STATE TOTALS          | 100.00               | 100.00       | 100.00      | 100.00  | 100.00              | 100.00  | 100.00      | 100.00   |

Table 8. Percentage distribution of sage grouse harvest by region and county, 1984-91.

\*Closed season ( )Percent of total harvest in closed areas.

| Region and<br><u>County</u><br>Northern Region<br>Box Elder | 1984       | 1985    | 1006         | 1003                 | Year     |         |                |              |
|---|------------|---------|--------------|----------------------|----------|---------|----------------|--------------|
| Northern Region   | 1984       | 1985    |              |                      |          | 1989    | 1990           | 1991         |
|   |            |         | 1986         | 1987                 | 1988     |         |                |              |
| Box Elder   |            |         |              | 14.11                | 15.99    | 16.81   | 14.71          | 15.16        |
|   | 16.89      | 15.15   | 17.53        |                      | 7.65*    | 4.28*   | 7.05           | 5.61*        |
| Cache   | 6.38       | 4.71*   | 4.12*        | 11.87*               |          |         | 0.82*          | 1.03*        |
| Davis   | 3.72*      | 0.58*   | 1.18*        | 0.34*                | 1.63*    | 2.68*   | 1.84*          | 1.31*        |
| Morgan  | 5.85       | 1.16*   | 4.42*        | 0.68*                | 2.83*    | 1.50*   |                | 16.46        |
| Rich  | 5.58       | 7.28    | 7.07         | 8.26                 | 11.26    | 13.17   | 13.89<br>1.33* | 2.25*        |
| Summit  | 5.71       | 1.46*   | 1.47*        | 1.89*                | 2.40*    | 0.75*   |                |              |
| Weber   | 3.59       | 2.04*   | <u>4.12*</u> | <u>    1.54*    </u> | <u> </u> | 5.57    | 4.49*          | 5.80*        |
| REGIONAL TOTALS   | 47.74      | 32.51   | <u>39.91</u> | <u>38.72</u>         | 44.88    | 44.75   | 44.13          | 47.62        |
| Central Region  |            |         |              |                      |          |         |                |              |
| Juab  | 0.79*      | 0.58*   | 0.59*        | 0.86*                | 0.68*    | 0.96*   | 1.53*          | 1.22*        |
| Salt Lake   | 0.53*      | 1.75*   | 1.91*        | 0.17*                | 0.17*    | 1.07*   | 0.51*          | 0.94*        |
| Sanpete   | 1.46*      | 2.62*   | 3.53*        | 4.99*                | 4.12*    | 3.00*   | 0.92*          | 1.50*        |
| Tooele  | 1.99*      | 1.89*   | 1.91*        | 3.44*                | 5.07     | 3.96    | 1.33*          | 1.87*        |
| Utah  | 4.65*      | 8.01*   | 7.81         | 6.71                 | 3.86     | €.85    | 4.19           | 1.31*        |
| Wasatch   | 4.78       | 3.06    | 3.39*        | 2.06                 | 2.83*    | 0.43*_  | 1.12*          | 1.78*        |
| REGIONAL TOTALS   | 14.23      | 17.93   | 19.15        | 18.24                | 16.76    | 16.27   | 9.60           | 8.61         |
| Southern Region   | 47.23      | 1,1,1,0 |              |                      |          |         |                |              |
|   | 0.93       | 2.62    | 1.47         | 4.47                 | 1.80     | 1.28    | 1.33           | 0.65         |
| Beaver  | 5.18       | 6.56    | 5.45         | 2.75                 | 2.49     | 5.35    | 7.56           | 3.09         |
| Garfield  | 0.93       | 1.89    | 2.50         | 2.40                 | 1.97     | 2.78    | 1.94           | 1.40         |
| Iron  | 0.00       | 0.29    | 1.18         | 0.00                 | 0.08     | 0.43    | 1.33           | 0.28         |
| Kane  |            |         | 0.29*        | 0.34*                | 0.00*    | 1.18*   | 0.72*          | 1.40*        |
| Millard   | 0.79*      | 0.73*   |              |                      | 1.63     | 1.61    | 1.02           | 1.87         |
| Piute   | 2.12       | 2.77    | 0.59         | 2.06                 | 5.67     | 3.53    | 4.90           | 5.33         |
| Sevier  | 1.59       | 2.18    | 3.39         | 2.06                 |          |         | 0.82*          | 0.19*        |
| Washington  | 0.13*      |         | 0.00         | 0.34*                | 0.42*    | 0.00*   | 4.80           | 6.64         |
| Wayne   | 4.25       | 5.24    | 4.71         | 3.44                 | 4.90     | 4.39    |                | 20.86        |
| REGIONAL TOTALS   | 15.96      | 22.88   | 19.59        | 17.89                | 18.99    | 20.56   | _24.41_        | 20.00        |
| Northeastern Req  | <u>ion</u> |         |              |                      |          |         |                | 1.06         |
| Daggett   | 2.25       | 1.89    | 1.62         | 2.06                 | 1.28     | 1.61*   | 4.09           | 1.96         |
| Duchesne  | 3.84       | 6.12    | 3.09         | 3.95                 | 1.97     | 2.25    | 3.17           | 2.81         |
| Uintah  | 11.70      | 13.99   | <u>11.78</u> | <u>16.52</u>         | 11.95    | 8.99    | 10.73          | 14.31        |
| REGIONAL TOTALS   | 17.95      | 22.01   | 16.59        | 22.54                | 15.21    | 12.85   | <u>17.98</u>   | <u>19.08</u> |
| Southeastern Reg  | ion        | •       |              |                      |          |         |                |              |
| Carbon  | 1.99*      | 1.46    | 2.50         | 1.89                 | 2.14     | 2.68    | 2.45           | 2.43         |
| Emery   | 1.86*      | 1.16    | 1.03         | 0.17                 | 1.11     | 2.14    | 0.51*          | 0.75*        |
| Grand   | 0.00       | 0.14    | 0.74         | 0.34                 | 0.00     | 0.21    | 0.92           | 0.00         |
| San Juan _  | 0.00*      | 0.14    | 0.44         | 0.17                 | 0.17     | 0.54*   | 0.00*          |              |
| REGIONAL TOTALS   | 3.85       | 2.91    | 4.71         | 2.57                 | 3.43     | 5.57    | 3.88           | 3.84         |
| Unknown counties  | 0.26       | 1.75    | 0.15         | 0.00                 | 0.68     | 0.00    | 0.00           | 0.00         |
| Closed areas  | (17.91)    | (26.21) | (26.90)      | (26.46)              | (25.82)  | (23.57) | (15.94)        | (26.29)      |
| STATE TOTALS  | 100.00     | 100.00  | 100.00       | 100.00               | 100.00   | 100.00  | 100.00         | 100.00       |

Table 9. Percentage distribution of sage grouse hunting pressure by region and county, 1984-91.

Ŷ

\*Closed season ( )Percent of total pressure in closed areas.

|            | Total          | Total            | Hunter-Days | Sage Grouse    | Sage Grouse Pe |
|------------|----------------|------------------|-------------|----------------|----------------|
| Year       | Hunters*       | Harvest*         | Afield      | Per Hunter-Day | Hunter         |
| 1951       | 840            | 2,458            | <del></del> | _              | 2.93           |
| 1952       | 678            | 2,230            | -           | •              | 3.29           |
| 1953       | 895            | 2,581            |             |                | 2.88           |
| 1954       | 802            | 2,510            | -           | · · · ·        | 3.13           |
| 1955       | 579            | 1,742            |             | -              | 3.01           |
| 1956       | 495            | 1,375            | **          | -              | 2,97           |
| 1957       | 470            | 1,303            | -           | _              | 2.77           |
| 1958       | 567            | 1,797            | -           |                | 3.17           |
| 1959       | 699            | 1,875            | -           |                | 2.68           |
| 1960       | <b>8</b> 61    | 2,246            | -           | -              | 2.61           |
| 961**      | 1,078          | 1,918            | <u> </u>    | -              | 1.78           |
| 1962***    | 2,382          | 5,352            | 5,097       | 1.05           | 1.89           |
| 1963       | 12,366         | 3,793            | 15,564      | 0.89           | 1.12           |
| 1964       | 4,362          | 6,827            | 5,807       | 1.18           | 1.56           |
| 965        | 3,243          | 3,881            | 4,673       | 0.83           | 1.20           |
| 966        | 2,612          | 3,962            | 4,006       | 0.99           | 1.52           |
| 967        | 5,336          | 5,089            | 7,860       | 0.65           | 0.95           |
| 968        | 9,115          | 11,109           | 13,601      | 0.82           | 1,22           |
| 969        | 12,894         | 22,282           | 20,466      | 1.09           | 1,73           |
| 970        | 12,036         | 15,877           | 18,506      | 0.86           | 1.32           |
| 971        | 12,893         | 20,013           | 21,509      | 0.93           | 1.55           |
| 972        | 13,040         | 15,983           | 22,232      | 0.72           | 1.33           |
| 973        | 10,017         | 13,926           | 19,049      | 0.73           | 1.39           |
| 974 ·      | 12,214         | 15,215           | 23,516      | 0.65           | 1.25           |
| 975        | 13,996         | 18,916           | 25,720      | 0.74           | 1.35           |
| 976        | 15,283         | 24,541           | 28,342      | 0.87           | 1.53           |
| 977        | 14,078         | 18,615           | 25,759      | 0.72           | 1.32           |
| 978        | 16,231         | 25,938           | 29,861      | 0.87           | 1.60           |
| 979        | 16,927         | 28,280           | 30,682      | 0.92           | 1.67           |
| 980        | 15,219         | 22,770           | 26,893      | 0.85           | 1.50           |
| 981        | 10,083         | 15,857           | 18,617      | 0.85           |                |
| 982        | 8,997          | 12,383           | 15,663      | 0.79           | 1.57           |
| 983        | 9,201          | 14,949           | 18,467      | 0.81           | 1.38           |
| 984        | 8,283          | 10,921           | 15,266      |                | 1.63           |
| 985        | 7,586          | 11,466           | 13,200      | 0.72           | 1.32           |
| 986        | 7,233          | 11,766           | 13,992      | 0.78           | 1.51           |
| 987 ·      | 7,060          | 12,673           |             | 0.84           | 1.63           |
| 88         | 8,499          |                  | 14,242      | 0.89           | 1.80           |
| 989<br>189 | 9,002          | 14,692           | 19,418      | 0.76           | 1.73           |
| 990        | 9,002<br>9,014 | 13,710<br>15,784 | 19,373      | 0.71           | 1.52           |
| 991        |                |                  | 20,147      | 0.78           | 1.75           |
| otals      | 8,018          | 12,542           | 18.596      | 0.67           | 1.56           |
| 951-91)    | 305 194        | 451 144          |             |                |                |
| verage     | 305,184        | 451,147          | 537,626     | <u> </u>       |                |
| 951-90)    | 7 470          | 10.0/5           | 18 000      |                |                |
| /24-70)    | 7,429          | 10,965           | 17,898      | 0.84           | 1.85           |

Table 10. Statewide summary of sage grouse harvest statistics, 1951-91.

\* The number of sage grouse hunters and consequently harvest was limited

by permits available from 1951 through 1962.

\*\* Estimated.

\*\*\* Totals and indices based on indiscrete data.

|                     |         | Ĩ          | All Hunts |       |         |           |            | Complete Hunts | lunts      |         |            |
|---------------------|---------|------------|-----------|-------|---------|-----------|------------|----------------|------------|---------|------------|
| Region and          | Total   | Total      | Total     | Total | Birds/  | Complete  | Total      | Total          | Total      | Bards/  | Birds/     |
|                     | Parties | Ilunters   | Hours     | Birds | 100 FLr | Hunts     | Ilunters   | Roors          | Birds      | -100 EF | Hunter     |
| Northern Region     |         |            |           |       |         |           |            |                |            |         |            |
| Dax Elder           | 28      | 15         | 133       | 24    | 18      | 139       | 361        | 2,716          | 301        | =       | 0.83       |
| Cache               | 4       | 31         | 20        | 12    | 6       | -         |            |                | 7          | 100     | 2.00       |
| Davis               | ı       | 1          | 1         | ļ.    | 1       | <b>ec</b> | 16         | 12             | 0          | 1       | 00.0       |
| Morgan              | 1       | 1          | 1         | ł     | ;       | ł         | ;          | 1              | 1          | 1       | I          |
| Rich                | I       | :          | ı         | ł     | 1       | <b>1</b>  | 267        | 1,114          | <b>8</b> 6 | 6       | 0.37       |
| Summit              | ı       | 1          | ı         | ł     | I       | 1         | 1          | 1              | ;          | I       | I          |
| Weber               | 1       | 1          | 1         | 1     | t       | 1         | ı          | 1              | 1          | ;       | 1          |
| REGIONAL TOTALS     | 32      | 106        | 153       | 36    | 24      | 148       | 64S        | 3,844          | 401        | 10      | 0.62       |
| Central Region      |         |            |           |       |         |           |            |                |            |         |            |
| Juah                | ı       | ;          | I         | ł     | 1       | ł         | <b>, I</b> | :              | :          | 1       | 1          |
| Salt Lake           | I       | :          | ł         | I     | 1       | ł         | ł          | 1              | ;          | :       | 1          |
| Sanpete             | ł       | 1          | I         | ł     | 1       | 1         | ł          | :              | ł          | ł       | 1          |
| Tooele              | ł       | 1          | 1         | 1     | ł       | ł         | · 1        | ı              | 1          | ı       | <b>I</b> . |
| Utah                | :       | I          | ł         | ı     | ł       | I         | 1          | ł              | 1          | ł       | I          |
| Wasatch             | 1       | ı          | ł         | :     | 1       | I         | 1          | 1              | :          | ı       | 1          |
| REGIONAL TOTALS     |         | 1          | .         | 1     | ľ       | 1         | 1          | 1              |            | 1       | ı          |
| Southern Region     |         |            |           |       |         |           |            |                |            |         |            |
| Deaver              | 1       | ł          | ı         | ł     | 1       | 1         | ;          | :              | 1          | I       | 1          |
| Garfield            | 1       | ł          | 1         | ł     | 1       | ;         | :          | I              | 1          | I       | I          |
| Irou                | ı       | ļ          | I         | 1     | 1       | 1         | :          | 1              | 1          | 1       | I          |
| Kane                | I       | ı          | 1         | 1     | 1       | I         | 1          | 1              | :          | :       | I          |
| Millard             | 1       | ;          | I         | ł     | 1       | I         | I.         | 1              | 1          | L       | ł          |
| Pinte               | :       | :          | ł         | ł     | ł       | I         | ;          | 1              | ١          | ł       | 1          |
| Sevier              | ;       | :          | ł         | ł     | I       | I         | ;          | 1              | ł          | ł       | t          |
| Washington          | ł       | ı          | ł         | 1     | I       | 1         | ł          | :              | 1          | ı       | 1          |
| Wayne               | I       | ı          | :         | :     |         | ;         | 134        | 639            | 137        | 7       | 1.02       |
| REGIONAL TOTALS     | ł       | 1          | 1         | 1     | 1       | 1         | 134        | 699            | 137        | 21      | 1.02       |
| Northeastern Region |         |            |           |       |         |           |            |                |            |         |            |
| Daggelt             | 14      | <b>6</b> £ | 103       | 33    | 32      | H         | 52         | 5              | 76         | 8       |            |
| Duchesne            | 23      | 86         | 311       | 52    | 17      | 1         | 26         | 6              | 5<br>1     | EI :    |            |
| Uintah              | 74      | 181        | 526       | 164   | 31      | 53        | 118        | 326            | IEI        | 9       |            |
| REGIONAL TOTALS     | 111     | 318        | 940       | 249   | 26      | 11        | 169        | 498            | 170        | 34      | 1.01       |
| Southeastern Region |         |            |           |       | •       | •         |            |                |            |         |            |
| Carbon              | 1       | 1          | I         | :     | I       | 1         | :          | I              | I          | :       | t          |
| Exuery              | ł       | I          | :         | ł     | 1       | ł         | ł          | ı              | 1          | ;       | ł          |
| Grand               | I       | :          | 1         | ł     | :       | I         | 1          | ı              | 1          | I.      | 1          |
| San Juan            |         | 8          | 1         | 1     | :       | :         | -          | 1              | :          | 1       | '          |
| REGIONAL TOTALS     | :       | :          | 1         |       |         | ;         | 1          | :              | ;          | 1       | 1          |
|                     |         |            |           |       |         |           |            |                |            |         |            |

Ì

|                        |            |        |            |         |            | İ        |        |        | 2//1   |          | TAAT   |        |
|------------------------|------------|--------|------------|---------|------------|----------|--------|--------|--------|----------|--------|--------|
| Region and             | Birds/     | Birds/ | Birds/     | Birds/  | Birds/     | Rirds/   | Rirds/ | Rinde/ | Rinde/ | Diadal   |        |        |
| County                 | 100 Hr     | Hunter | 100 IIr    | Ihinter | 100 Hr     | Hunter   | Hunter | 100 Hr | Hunter | 100 IIr  | Hunter | 100 H- |
| Northern Region        |            |        |            |         |            |          |        |        |        |          |        |        |
| Box Elder              | 17         | 1.06   | 19         | 1.39    | 16         | 1.21     | 21     | 1.28   | 25     | 1.77     | 11     | 0.02   |
| Cache                  | 19         | 0.71   | ı          | ;       | ı          | ;        | 1      | 1      | }      |          |        |        |
| Davis                  | :          | ł      | I          | ł       | ;          | 1        | ł      | 1      | 1      |          |        | 00.4   |
| Morgan                 | ł          | I      | ;          | ;       | 1          | :        | :      | ł      |        | :        |        | 00.0   |
| Rich                   | 14         | 0.57   | 17         | 0 70    | 18         | U VY U   | 6      | 0 20   | 1 2    | ; 5      | <      | ; ;    |
| Summit                 | : 1        |        |            |         | 01         | A0-0     | ¢      | 00.0   | 3      | 1.0.0    | P,     | 0.37   |
| Weher                  |            | 1      | 1          | 1       | <b>I</b> . | 1        | 1      | :      | ;      | 1        | ı      | 1      |
| DECLONAL ROTALS        | ,   ;<br>  | 1      | •          | 1       | •          | 1        | 1      | 1      | 1      | 1        | 1      | 1      |
| KEAHUNAL TUTALS        | 11         | 0.93   | £          | 1.20    | 17         | 1.06     | 16     | 0.87   | 2      | 1.24     | 2      | 0.62   |
| contar region          |            |        |            |         |            |          |        |        |        |          |        |        |
| Juab                   | 1          | ł      | 1          | ł       | :          | 1        | ł      | 1      | ł      | I        | I      | I      |
| Salt Lake              | 1          | I      | ł          | ı       | ı          | :        | ;      | ł      | ł      | 1        | ł      | 1      |
| Sanpete                | I          | 1      | 1          | 1       | ł          | I        | I      | 1      | 1      | ı        | ;      | I      |
| Tooele                 | I          | ł      | 1          |         | 40         | 0.83     | 41     | 0.87   | 1      | I        | 1      | I      |
| Utah                   | 1          | ł      | ł          | :       | 1          | 1        | ł      | 1      | 1      | ł        | 1      | ł      |
| Wasatch                | 1          | I      | I          | 1       | 1          | ;        | I      | 1      | 1      | I        | :      | I      |
| REGIONAL TOTALS        | ı          | ı      | 1          | ,       | ŧ          | 0.93     | 41     | 0.87   |        | ;        | ,      | 1      |
| Southern Region        |            |        |            |         |            |          |        |        |        |          |        |        |
| Beaver                 | ł          | ł      | 1          | 1       | t          | 6        | ł      | I      | I      | <b>;</b> | ı      | 1      |
| Garfield               | ••         | 0.20   | 20         | 1.71    | 65         | 1.82     | 64     | 0.33   | 1      | ;        | ı      | 1      |
| Iron                   | ł          | ì      | •          | 0.00    | 14         | 0.70     | ı      | 0.64   | ı      | ı        | I      | 1      |
| Kane                   | ł          | ı      |            | ł       | :          | ı        | 1      | 1      | 1      | 1        | 1      | I      |
| Millard                | I          | 1      | 1          | 1       | ł          | ı        | 1      | I      | 1      | ı        | ı      | 1      |
| Piute                  | 1          | ł      | 1          | 1       | ;          | ı        | 1      | ;      | ;      | 1        | 1      | ı      |
| Sevier                 | 1          | ł      | I          | 1       | 1          | :        | I      | 1      | ł      | ł        | ;      | I      |
| Washington             | ŀ          | ı      | 1          | ſ       | 1          | ;        | I      | ł      | ł      | 1        | ı      | . 1    |
| Wayne                  | 22         | 1.23   | 21         | 0.95    | 23         | 1.12     | I      | I      | 23     | 0.81     | 21     | 1.02   |
| REGIONAL TOTALS        | 22         | 1.20   | 22         | 0.97    | 24         | 1.15     | 227    | 0.51   | 23     | 0.81     | 21     | 1.02   |
| Northeastern Region    |            |        |            |         |            |          |        |        |        |          |        |        |
| Daggett                | 47         | 1.78   | 80         | 1.67    | 9          | 0.67     | 9      | 0.33   | 17     | 0.67     | 35     | 1.04   |
| Duchesne               | 2          | 2.00   | 75         | 1.50    | :          | ŧ        | 1      | :      | 50     | 1.00     | 13     | 0.50   |
| Uintalı .              | 49         | 1.17   | 36         | 1.05    | 26         | 16.0     | 20     | 0.87   | 27     | 0.86     | 40     | 1.11   |
| <b>REGIONAL TOTALS</b> | 52         | 1.33   | 40         | 1.12    | 27         | 06.0     | 18     | 0.84   | 26     | 0.83     | 4      | 1.01   |
| Southeastern Region    |            |        |            |         |            |          |        |        |        |          |        |        |
| Carbon                 | 200        | 1.00   | 50         | 1.00    | :          | <b>i</b> | 22     | 0.77   | 13     | 0.67     | I      | I      |
| Emery                  | 1          | 1      | ł          | :       | ;          | 1        | ı      | :      | 1      | I        | ı      | 1      |
| Grand                  | 1          | ı      | <b>9</b> 5 | 3.00    | 1          | 1        | ł      | 1      | ı      | :        | ł      | I      |
| San Juan               | 1          | 1      | '          | 1       | 1          | ;        | I      | 1      | ł      | :        | I      | 1      |
| <b>REGIONAL TOTALS</b> | <b>5</b> 0 | 1.00   | 50         | 1.73    | Ţ          | 1        | 22     | 0.77   | 13     | 0.67     | 1      |        |
|                        |            |        |            |         |            |          |        |        |        |          |        | 1      |

Table 12. Sage grouse hunter success trend as determined by field bag check, 1986-91.

100

| Table 13. | Sex and age | composition | of harvested | l sage grouse, | 1991. |
|-----------|-------------|-------------|--------------|----------------|-------|
|           |             |             |              |                |       |

j

| Region and          | Sample  |     | Adults     |          |     | Young |           | Young/     | Young/    |
|---------------------|---------|-----|------------|----------|-----|-------|-----------|------------|-----------|
| County              | Size    | M   | F          | Total    | М   | F     | Total     | 100 Adults | 100 Hens  |
| Northern Region     |         |     |            |          |     |       |           |            |           |
| Box Elder           | 171     | 46  | 65         | 111      | 20  | 40    | 60        | 54         | 92        |
| Cache               |         |     |            |          | ·   |       |           |            |           |
| Davis               |         |     |            |          |     |       | <b></b> ' |            |           |
| Morgan              |         | ••  |            |          |     |       |           |            |           |
| Rich                | 439     | 115 | 146        | 261      | 73  | 105   | 178       | 68         | 122       |
| Summit              |         |     |            |          |     |       |           |            |           |
| Weber               |         |     |            |          |     |       |           |            |           |
| REGIONAL TOTALS     | 610     | 161 | 211        | 372      | 93  | 145   | 238       | 64         | 113       |
| Central Region      |         |     |            | <u>·</u> |     |       |           |            |           |
| Juab                |         |     |            |          |     |       |           |            |           |
| Salt Lake           |         |     |            |          |     |       |           |            | ••        |
| Sanpete .           |         |     |            |          | •-  |       |           |            |           |
| Tooele              |         | ••  |            | ·        |     |       |           |            |           |
| Utah                |         |     |            |          |     |       |           |            |           |
| Wasatch             |         |     |            |          |     |       |           |            |           |
| REGIONAL TOTALS     |         | ··  |            |          |     |       | <b></b>   |            |           |
| Southern Region     |         |     |            |          |     |       |           |            |           |
| Beaver              |         |     |            |          |     | -     |           |            |           |
| Garfield            |         | ~~  |            |          |     |       |           |            |           |
| Iron                | <b></b> |     |            |          | ••  |       | **        |            |           |
| Kane                |         |     |            |          |     |       |           |            |           |
| Millard             |         |     |            |          |     |       | •••       |            |           |
| Piute               |         |     |            |          |     |       |           |            |           |
| Sevier              |         |     |            |          |     |       |           |            |           |
| Washington          |         |     |            |          |     |       |           |            | <b></b> . |
| Wayne               | 333     | 49  | <b>9</b> 9 | 148      | 91  | 94    | 185       | 125        | 187       |
| REGIONAL TOTALS     |         | 49  | 99         | 148      | 91  | 94    | 185       | 125        | 187       |
| Northeastern Region |         |     |            |          |     |       |           |            |           |
| Daggett             |         |     |            | -        |     |       |           |            | •••       |
| Duchesne            |         |     |            |          |     |       |           |            |           |
| Uintah              |         |     |            |          |     |       |           |            |           |
| REGIONAL TOTALS     |         |     |            |          |     |       |           |            | ••        |
| Southeastern Region | ·       |     |            |          |     |       |           |            |           |
| Carbon              |         |     |            |          |     |       |           |            |           |
| Emery               |         |     |            |          |     |       |           |            |           |
| Grand               |         |     |            |          |     |       | _         |            | -         |
| San Juan            |         |     |            |          |     |       |           |            |           |
| REGIONAL TOTALS     | · · · · |     |            | _        |     |       |           |            |           |
| STATE TOTALS        | 943     | 210 | 310        | 520      | 184 | 239   | 423       | 81         | 136       |

|                     |     |             | 1988 |             |            |            |             | 6861 |         |      |      | 1990        | 8     |           |         |     | ľ           | 1601 |              |       |                 |             | A verses 1000 00 | 00.00  |      |
|---------------------|-----|-------------|------|-------------|------------|------------|-------------|------|---------|------|------|-------------|-------|-----------|---------|-----|-------------|------|--------------|-------|-----------------|-------------|------------------|--------|------|
| Region and          |     | Sex Ratio % |      | Young /     |            | *          | Sex Hatlo % |      | Young / |      | Sex  | Sex Ratto % | ۲a    | Young /   |         | Sex | Sex Railo % |      | Voune /      |       |                 | See Ratio 4 | 1                | Volume |      |
| County              | =   | W           | ia.  | V001 11001  | ¥001       | c          | W           | ja.  | 1001    | V001 | -    | W           |       | 1001 1001 | 5       |     | ×           | -    | 100          | 100.1 |                 |             |                  |        | 1.00 |
| Northern Region     |     |             |      |             |            |            |             |      |         |      |      |             |       |           |         |     |             |      |              | Vant  | =  <sup>.</sup> | Ξ           | •                |        |      |
| Rox Elder           | 52  | ŝ           | 2    | <b>0</b> (1 | 8          | 857        | 37          | 8    | 175     | 1    | 267  | ŧ           | 57 ]  | 193       | 119 121 |     |             | ţ    | 8            | 3     |                 |             |                  |        |      |
| Cache               | I   | 1           | I    | I           | I          | I          | ı           | ۱    | I       | ł    | ı    |             |       |           |         |     |             | ; ;  | : •          | ţı    |                 |             |                  |        |      |
| Davis .             | ı   | 1           | I    | 1           | 1          | ł          | 1           | ı    | I       | ı    | ı    | ł           | ı     | ;         | 1       |     | 1           | 1    |              |       |                 | ,           |                  |        |      |
| Morgan              | 1   | t           | I    | I           | I          | ' <b>1</b> | ı           | ı    | I       | I    | 1    | `ı          |       | ı         | 1       |     |             |      |              | • •   |                 |             |                  |        |      |
| Rich                | 5   | 32          | 5    | 13          | 2          | 8          | 2           | 39   | 828     | 136  | I\$I | 2           |       |           | 156 430 |     |             | 5    | • E          | 1 8   |                 |             |                  |        |      |
| Summit              | I   | 1           | 1    | 1           | 1          | I          | 1           | •    | 1       | 1    | . 1  |             |       |           |         |     | ξ I         | R I  | 1            | 8     |                 |             |                  |        |      |
| Weher               | 1   | ı           | 1    | 1           | I          | ı          | ı           | 1    | I       | ı    | ;    |             | ı     | ı         |         |     |             | . 1  |              | l     |                 |             |                  |        |      |
| REGIONAL TOTALS     | ñ   | ×           | 8    | 친           | 8          | Ę          | 37          | 8    | 176     | 11   | 8    | 4           | 2     |           |         |     |             |      | ,   <u>:</u> | •     | 1               | 1           | 1                | 1      |      |
| Central Region      | 1   |             |      |             |            |            |             |      |         |      |      |             |       |           |         |     |             | 5    |              | 8     | 5               | R           | 2                | 8      | 2    |
| Juah                | I   | I           | 1    | '           | ı          | I          | ı           | ı    | I       | 1    | t    | ı           | ı     |           | י<br>ו  |     |             | ,    |              | I     |                 |             |                  |        |      |
| Salt Lake           | I   | 1           | ı    | ı           | I          | I          | I           | ı    | ı       | I    | ı    | ı           | ı     | ı         | י<br>ו  |     |             |      |              | 1     |                 |             |                  |        |      |
| Sanpete             | ł   | ı           | I    | I           | I          | 1          | ı           | ı    | ı       | 1    | 1    | ı           | ,     |           |         |     | . 1         | I    | r            | 1     |                 |             |                  |        |      |
| Tooele              | 33  | \$          | 57   | 133         | 9 <u>7</u> | អ          | 2           | 7    | 121     | 8    | ı    | ı           | 1     |           |         |     |             | I I  | r            | •     |                 |             |                  |        |      |
| (Tiah               | 1   | ı           | 1    | 1           | 1          | I          | 1           | 1    | 1       | 1    | ı    | ı           | ı     |           |         |     |             | 1,   | 1            | 1     |                 |             |                  |        |      |
| Wasetch             | I   | ı           | 1    | ı           | I          | I          | ı           | I    | I       | I    | ı    |             |       |           |         |     |             | ,    | ı            | 1     |                 |             |                  |        |      |
| REGIONAL TOTALS     | E   | Ş           | 5    | UI.I        | 2          | 1          | ×           | 1    | Ĩ       |      |      |             |       |           |         |     |             | ,    | ,            | •     |                 |             |                  |        |      |
| Southern Restan     |     |             |      |             |            | 4          |             | 2    |         |      |      |             | ,     |           |         |     |             | ,    | ,<br>        | •     | 2               | ×           | \$               | 12     | 8    |
| Beaver              | I   | ı           | I    | ı           | I          | I          | .,          | I    | I       | I    | l    |             |       |           |         |     |             |      |              |       |                 |             |                  |        |      |
| Garfield            | 1   |             |      |             |            | 1          | ł           | I    | I       | I    | ı    | ı           |       | ,         | 1       | •   | _           | ,    | 1            | 1     |                 |             |                  |        |      |
|                     |     | i :         | )    | I           | I          | I          | ı           | ı    | I       | 1    | ı    |             | ı     | ,         | •       | _   |             |      | ł            | I     |                 |             |                  |        |      |
|                     | I   | 1           | I    | 1           | I          | I          | ı           | ł    | ı       | 1    | ı    | 1           |       |           | •       | •   |             | I    | ı            | ı     |                 |             |                  |        |      |
| Kune<br>Maria       | 1   | Ļ           | I    | ı           | ı          | ı          | I           | ı    | ı       | ı    | ı    | 1           |       |           | 1       | •   | ,           | ,    | ı            | ı     |                 |             |                  |        |      |
| Millerd             | 1   | I           | I    | I           | I          | I          | ŀ           | ı    | ı       | ı    | ı    |             |       |           | •       |     |             | ı    | ı            | ı     |                 |             |                  |        |      |
| Puble               | ł   | I           | I    | <b>I</b>    | ı          | ı          | ı           | ı    | I       | I    | ı    |             | ı     |           |         |     | 1           | 1    | ,            | ı     |                 |             |                  |        |      |
| Sevler              | ı   | ı           | ı    | ł           | ı          | I          | I           | ı    | ı       | ı    | ı    |             |       |           | 1       |     | ,           | ı    | ı            | ı     |                 |             |                  |        |      |
| Washington          | 1   | ı           | I    | ł           | I          | ı          | ı           | 1    | 1       | ı    | ı    |             |       | 1.        |         |     |             | 1    | · 1          | I     |                 |             |                  |        |      |
| Wayne .             | SE  | \$          | 8    | 82          | ži<br>J    | <u>8</u>   | R           | 8    | ž       | 5    | 366  |             | 58 22 |           | 56 333  |     | 5           | 荔    | 187          | 125   |                 |             |                  |        |      |
| RECIONAL TOTALS     | 395 | ş           | 8    | ଷ୍ପ         | 28<br>2    | 9 <u>9</u> | R           | 3    | 18      | ۶    | 366  |             |       | 213 15    | 156 333 |     |             | 28   | 187          | 125   | EQ.             | \$          | 8                | 204    | F    |
| Northeastern Region |     |             |      |             |            |            |             |      |         |      |      |             |       |           |         |     |             |      |              |       |                 |             |                  |        |      |
| Dapgel              | ł   | 1           | 1    | I           | ŀ          | 1          | •           | ı    | 1       | ı    | ı    | 1           | ı     | 1         |         |     |             | 1    | ,            | ;     |                 |             |                  |        |      |
| Duchesne            | ı   | ı           | ı    | ı           | ı          | I          | I           | ı    | ı       | I    | ı    | ı           | I     | •         | 1       | t   |             | 1    | 1            | L     |                 |             |                  |        |      |
| - Helen             | F   | ŧ           | ឝ    | R           | Ē          | R          | 25          | 3    | ¥       | æ    | 1    |             |       | 1         | 1       |     |             | 1    | 1            | ,     |                 |             |                  |        |      |
| REGIONAL TOTALS     | F   | \$          | 5    | 321         | Ë.         | 242        | 36          | 3    | 8       | æ    | 1    |             |       |           |         |     |             | .    | ,            |       | 151             | Ş           | 5                | 210    | 2    |
| Southeastern Region |     |             |      |             |            |            |             |      |         |      |      |             |       |           |         |     |             |      |              |       |                 |             |                  |        |      |
| Carbon              | 133 | 2           | F    | 5           | 81         | 8          | 5           | Ľ    | I       | 6    | F    | ı           | -     | 28        | 1       | 1   |             | ,    | ı            |       |                 |             |                  |        |      |
| Emery               | I   | ı           | 1    | ı           | I          | I          | ı           | ł    | ı       | ı    | 1    |             |       | •         |         |     |             | I    | I            | 1     |                 |             |                  |        |      |
| Grand               | t   | ı           | I    | ı           | ı          | ł          | ı           | ı    | ı       | ı    | ı    | 1           | ı     | •         | 1       |     |             |      | 1            | 1     |                 |             |                  |        |      |
| San Juan            | '   | ı           | 1    | '           | t          | 1          |             | ı    | T       | 4    | 1    |             |       | •         |         |     |             | 1    | ı            | 1     |                 |             |                  |        |      |
| REGIONAL TOTALS     | 133 | ล           | 2    | 8           | æ          | 8          | ន           | 7    | z       | 5    | 5    | 1           |       |           | 61 -    | 1   |             |      | ,            | 1     | 8               | ล           | F                | 5      | 1    |
| STATE TOTALS        | ş   | Ē           | \$   | 3           | ž          | 2          | 35          | 8    | 133     | 8    | 942  |             | 58 20 | 205 134   |         |     |             | 85,  | 136          | I.    | 515             | 2           | J                | 108    | Ĩ    |
|                     |     |             |      |             |            |            |             |      |         |      |      |             |       |           |         |     |             |      |              |       |                 |             |                  |        | 1    |
|                     |     |             |      |             |            |            |             |      |         |      |      |             |       |           |         |     |             |      |              |       |                 |             |                  |        |      |

Table 14. Sex and age composition of harvesied tage groute from \$988-91.

# FOREST GROUSE

# SUMMARY

Judging from harvest statistics for the fall of 1990, the 1991 breeding populations of blue and ruffed grouse were below average. However, blue grouse observed per 100 hours of effort during summer brood counts in 1991 increased 20 percent.

Production of blue and ruffed grouse decreased from 1990. | Blue grouse observed per 100 hours of effort increased 20 percent from the previous year. A total of 51 forest grouse broods were observed during 1991 compared with 59 in 1990, 46 in 1989, 86 in 1988, 134 in 1987, 53 in 1986, and 78 in 1985.

Harvest statistics indicated decreased density of forest grouse. Total harvest decreased from 38,922 in 1990 to 34,897 in 1991, a 10 percent decrease. Total hunters and days afield also declined. Field bag check samples indicated decreased forest grouse numbers.

These data indicate that hunters are discovering forest grouse hunting and are using the resources more than 10 years ago. This is what we hoped to accomplish in the five-year strategic plan.





#### Brood Counts

#### Ruffed Grouse

Results of the annual random brood survey for 1991 are shown in Table 1 of this section. Long-term trends of young per adult ratios, mean brood size and ruffed grouse observed per 100 hours are found in Tables 2-4. A summary of effort expended on ruffed and blue grouse brood counts combined is shown in Table 9. Survey results for 1991 compared to 1990 and the previous 10-year average (1981-1990) follow:

|   | <u>1991</u>             | <u>Percent</u><br>1990  | <u>change from</u><br><u>Average</u> |
|---|-------------------------|-------------------------|--------------------------------------|
| Total ruffed grouse observed<br>Young per 100 adults<br>Mean brood size<br>Ruffed grouse observed | 55<br>323<br>4.00<br>23 | -25<br>-9<br>-16<br>-23 | -49<br>+3<br>-7<br>-37               |
| per 100 hours<br>Total hours effort   | 236                     | ←2                      | -30                                  |

Harvest statistics for 1990 indicated a below average breeding population for 1991.

Effort on brood surveys decreased by 2 percent and was 30 percent below average.

Grouse observed per 100 hours was 37 percent below average, while mean brood size was 7 percent above average indicating decreased production.

#### Blue Grouse

Results of the annual random brood survey for 1991 are shown in Table 5 of this section. Long-term trends of young per adult ratios, mean brood size and blue grouse observed per 100 hours are found in Tables 6-8. Survey results for 1991 compared to 1990 and the previous 10-year average (1981-90) follow:

|                                       | <u>1991</u> | Percent<br>1990 | <u>change from</u><br><u>Average</u> |
|---------------------------------------|-------------|-----------------|--------------------------------------|
| Total blue grouse observed            | 264         | -21             | -39                                  |
| Young per 100 adults                  | 238         | -13             | -3                                   |
| Mean brood size                       | 3.88        | -7              | +3                                   |
| Blue grouse observed<br>per 100 hours | 112         | +20             | +5                                   |
| Total hours effort (forest grouse)    | 236         | -34             | -44                                  |

Harvest statistics for 1990 indicated the blue grouse breeding population for 1991 was again above average.

The 1991 summer surveys on blue grouse indicated that production decreased (13 percent) from 1990 and was about average.

Total observations decreased 21 percent, with a 34 percent decrease in effort. The number of grouse observed per 100 hours of effort increased from 1990 and was still 5 percent above average.

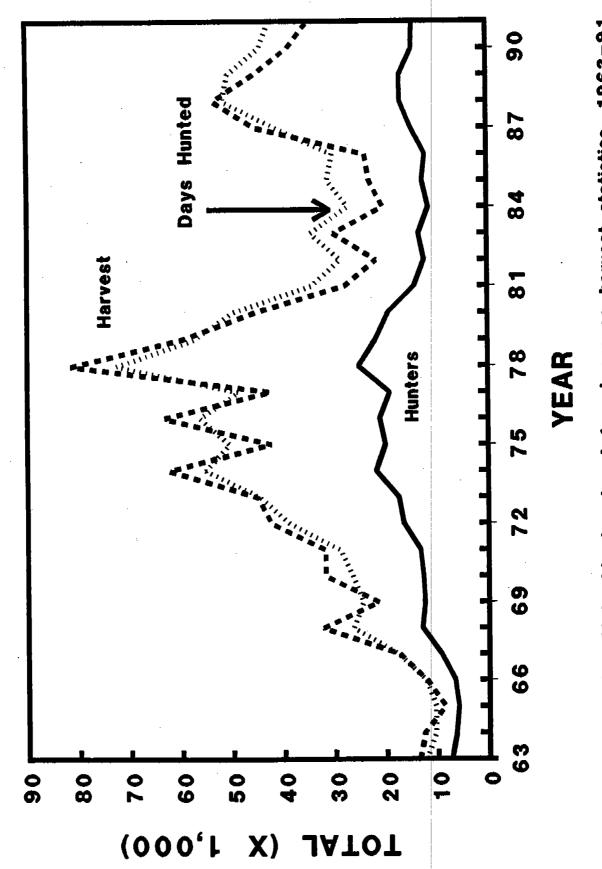
## <u>Harvest</u>

### Hunter Questionnaire

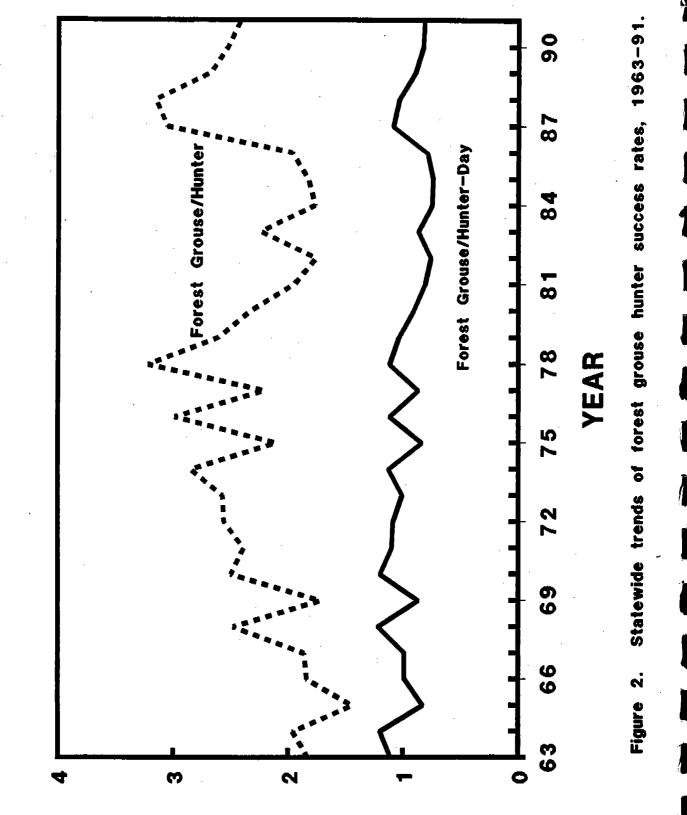
Results of the 1991 blue grouse, ruffed grouse and combined hunter questionnaire are shown in Table 10, 11 and 12 respectively. Long-term trends of forest grouse bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 13-15 and total statewide harvest statistics in Table 16 and Figures 1 and 2. Forest grouse season length, bag limits and harvest statistics, 1963-1991 are listed in Table 17. Harvest statistics for 1991 compared to 1990 and the previous 28-year average follow: Percent change from

|                              | <u>1991</u> | <u>1990</u> | Average |
|------------------------------|-------------|-------------|---------|
| Forest grouse hunters        | 14,421      | -1          | -2      |
| Forest grouse harvested      | 34,897      | -10         | -2      |
| Hunter-days afield           | 42,517      | -4          | +17     |
| Forest grouse per hunter-day | 0.82        | -1          | -16     |
| Forest grouse per hunter     | 2.42        | -4          | +5      |
| Percent ruffed grouse        | 34.60       | +22         | -11     |
| Percent blue grouse          | 61.07       | -9          | +11     |
| Percent unidentified         | 4.34        | -6          | -31     |

Total harvest decreased 10 percent from 1990 and was 2 percent below average. Overall, hunter success (grouse per hunter-day) was 16 percent below average, but the number of grouse harvested per hunter was 15 percent above average. Hunter pressure decreased slightly, but was still 17 percent above the 27-year average.



Statewide trends of forest grouse harvest statistics, 1963-91. Figure 1.



**FOREST GROUSE PER HUNTER AND PER DAY** 

# Field Bag Checks

A summary of field bag check data for 1991 is found in Table 18. Hunter success trends determined via this method are shown in Table 19. Sex and age composition of the harvest as determined from wings is shown in Table 20 and 21. Results of the 1991 survey compared to 1990 and the previous 10-year (1981-90) average follow:

|  | <u>1991</u> | <u>Percent</u><br>1990 | <u>change from</u><br><u>Average</u> |
|--|-------------|------------------------|--------------------------------------|
| Total hunters checked                              | 521         | +186                   | -26                                  |
| Total hours hunted                                 | 797         | +20                    | -72                                  |
| Forest grouse per hunter<br>(complete hunts)       | 0.50        | -56                    | -25                                  |
| Forest grouse bagged per 100 hours                 | 32          | -3                     | +94                                  |
| Average hours per hunter-day<br>(complete hunts)   | 1.53        | -56                    | -62                                  |
| Hours hunted per grouse bagged<br>(complete hunts) | 3.09        | +1                     | -53                                  |

There was a substantial increase in numbers of hunters checked in 1991. Hunter success (grouse per hunter) decreased 56 percent from 1990 and was 25 percent below average.

| Distinct                 | -   | Distinct     |       |       | MIXED TOUR   |       |            | •      | l           | 2          | 17-1-1-V |            | United of Gffart | f Effernet |       | Rirds/     |
|--------------------------|-----|--------------|-------|-------|--------------|-------|------------|--------|-------------|------------|----------|------------|------------------|------------|-------|------------|
| Revien and               |     | Broods       |       | Mean  | & Adults     |       | Adults w/o | Total  | Total       | Young/     |          |            | 110UIS 0         |            |       |            |
|                          | -   | Adults Young | Young | Brood | Adults Young | Young | Young      | Adults | Young       | 100 Adults | Miles    | Vehicle    | Horse            | Walk       | Total | 100 11     |
| Northern Region          |     |              |       |       |              |       |            | . •    |             |            |          |            | ļ                |            | **    | 90         |
| Rav Filder               | -   | -            | lion  | 5.00  | 1            | 1     | -          | 2      | <b>ان</b> م | 250        | ł        | :          | 57               | I          | 1     | 9 1        |
| Control States           |     | -            | -     | 3.00  | ÷            | 9     | ł          | च      | •           | 225        | ;        | 1          | 1                | ł          | 17    | 2          |
| nsie .                   |     | •            | •     | 1     | I            | 1     | I          | ı      | I           | ł          | 1        | 5          | 1                | œ          | 21    | 4          |
| Davis                    | 1 0 | •            | 1 \$  |       | I            |       | 1          | ~      | 91          | ł          | ł        | ÷          | 11               | -          | 26    | 20         |
| Morgan                   | m   | m            | 2     |       | 1            | 1     | ł          | 5      |             | ł          | 1        | 1          | 90               | :          | œ     | I          |
| Rich                     | 1   | 1            | ł     | ł     | 1            | ł     | 1          | 1      | ! •         |            | l        | 1          |                  |            |       | 2.0        |
| Summit                   | 7   | 7            | æ     | 4.00  | 1            | ł     | ł          | -1     | *           | 400        | 1        | 71         | ŝ ;              | 1;         |       | 2          |
|                          | -   | -            | •     | 1.00  | 1            | ł     | ;          | F      | 1           | 700        | 1        | ₽          | 2                | =          | 7     | 9          |
| WEDEL<br>DECIONAL TOTALS | ~   | -            | 33    | 4.13  | 6            | ø     | -          | 12     | 39          | 325        | 1        | 55         | 103              | 50         | 2     | 2          |
| The Deriver              | ,   |              |       |       |              |       |            |        |             |            |          |            |                  |            | L.    |            |
| Centra Region            |     |              |       |       | 1            | ł     | ľ          | ı      | I           | 1          | 1        | ı          | 1                | 1          | ı     | I          |
| Juah                     | ı   | 1            | 1     | I .   | )            |       |            | ;      | I           | 1          | 61       | Ģ          | 1                | 1          | 7     | ŀ          |
| Salt Lake                | 1   | 1            | 1     | 1     | 1            | l     | I          | •      |             | 300        | 228      | 15         | I                | 1          | 15    | t          |
| Sanpete                  | -   | -            | 3     | 3.00  | ł            | 1     | ł          | -      | ר           |            |          | 1          | 1                | ł          | ı     | ł          |
| Taaele                   | 1   | 1            | 1     | ł     | I            | :     | <b>I</b>   | ł      | I           |            | 118      | 8          | æ                | 1          | 17    | , <b>I</b> |
| Utah                     | ł   | 1            | ł     | 1     | ł            | 1     | 1          | :      | •           | I          |          | . <u>e</u> |                  | I          | 20    | I          |
| Wasatch                  | ł   | 1            | 1     | 1     | 1            | 1     | 1          | ;      | ,           |            |          |            | • :              |            | 1     | •          |
| REGIONAL TOTALS          | -   | -            | 3     | 3.00  | ł            | ı     | 1          |        | -           | BAR        | 536      | \$         | ╡                | ∍          | 5     | -          |
| Southern Region          | ļ   |              |       |       |              |       |            |        |             |            |          |            |                  |            | ł     | I          |
| Beaver                   | I   | 1            | 1     | I     | ł            | ł     | ı          | 1      | 1           | ı          | ł        | 1          | 1                | I          |       | 1          |
| Garfield                 | 1   | ł            | ł     | ł     | ı            | I     | ł          | 1      | t           | :          | I        | 1          | 1                | 1          |       |            |
| Iroa                     | ı   | 1            | I     | 1     | :            | I     | :          | 1      | 1           | I          | I        | 1          | I                | I          |       | I          |
| Kane                     | ı   | 1            | 1     | I     | ł            | 1     | 1          | Ļ      | 1           | 1          | 1        | 1          | ł                | I          |       | I          |
| Millard                  | I   | ł            | ł     | ı     | I            | 1     | ł          | ł      | I           | I          | ł        | 1          | ı                | 1          | I     |            |
| Pinte                    | I   | I            | I     | 1     | ł            | 1     | 1          | 1      | 1           | I          | :        | 1          | 1                | 1          | 1     |            |
| Sevier                   | I   | 1            | 1     | 1     | 1            | ł     | ł          | 1      | 1           | I          | 1        | 1          | :                | I          | l     | I          |
| Washinoton               | I   | 1            | 1     | 1     | 1            | 1     | ł          | 1      | ł           | ł          | 1        | 1          | 1                | I          | 1 •   | I          |
|                          | I   | 1            | 1     | ;     | 1            | 1     | I          | 1      | I           | 1          | R        | ~          | 1                | I          | •     | ľ          |
| Wayne                    |     |              | ;     | :     | 1            | :     |            | 1      | 1           | T          | 30       | 7          | :                | ۱          | 7     | 1          |
| KEALUNAL LULALS          |     |              |       |       |              |       |            |        |             |            |          |            |                  |            |       |            |
|                          | I   | ł            | 1     | 1     | 1            | 1     | ł          | 1      | 1           | ١          | ı        | 1          | ł                | 1          | ł     | 1          |
| Daggen                   | L 1 | ł            | 1     | ;     | 1            | 1     | 1          | ł      | :           | 1          | ł        | 1          | ł                | 1          | 1     | 1          |
|                          | Ì   | I            | ł     | ł     | I            | ł     | I          | 1      | 1           | 1          | 1        | 1          | '                | 1          | 1     | -          |
| Unitali                  | 1   |              |       | ;     |              | ;     |            |        | 1           | 1          | 1        | ;          | ı                | 1          | I     | 1          |
| KEUJUNAL IUTALS          |     |              |       |       |              |       |            |        |             |            |          |            |                  |            |       |            |
| Southeastern Kegion      |     |              |       |       |              |       | 1          | I      | ;           | ;          | 1        | I          | 1                | I          | I     | ł          |
| Carbon                   | 1   | 1            | 1     | ł     | 1            | I     |            | 1      | 1           | ŀ          | 1        | 1          | 1                | I          | ı     | t          |
| Emery                    | 1   | 1            | :     | I     | I            | 1     | I          | :      |             | I          | ł        | 1          | ł                | -          | T     | 1          |
| Grand                    | 1   | 1            | t     | ;     | 1            | 1     | :          | 1      | 1           | :          |          | 1          | I                |            | -     | I          |
| San Juan                 | 1   | I            | 1     | ľ     | 1            |       | 1          | 1      | 1           | •          | •        |            |                  | . .<br>    | -     | '          |
| BEGIONAL TOTALS          | 1   | 1            | 1     | 1     | 1            | 1     | 1          | 1      | ı           | 1          | :        | ı          | <b> </b>         |            |       |            |
|                          |     |              |       |       |              |       |            |        | :           |            | ì        | S          |                  |            |       | 3          |

Average 1981-90 275 368 428 443 313 1991 **§** § 355 22 225 ŝ 300 ł 1 1 ł. L 1 1 ī 1 **150** t 1 L t 1990 <u>5</u> 8 150 8 280 280 1 I 1 1 88 1 1 : 9 600 ł. ŝ ្រុន្ត្រ 1 1 1 I 1 1 ÷ 1 686I 300 : 8 េខ្ល 1 1 1 1 8 30 1 ł 1 - 1 53 ĝ 267 ริส L ÷ : : : : : 1 1 1 1988 136 52 267 220 14 30 1 1 300 T ł ł 5 <u>।</u>हि ŧ 1 1 1 1 ः (S 1 1 ŧ ł 1  $|\mathbf{1}|$ 1987 300 301 380 33 320 Ŧ ł 320 10 ÷ Т ł 118 흫 <u>। हिंहिं</u> 1 8 ł ł 1 1986 200 ŝ ₿ 8 30 <u></u> 1 ŧ. : 150 322 ł ſ I 1 Year I 1 1 1 I 312 - t i ł 1 Ł 1 L 1 1 ł 1985 8,700 667 200 28 1 ខ្ល 0 Įŝ 1 T ł T 1 ł 336 1 1 T Ϊt I t 1 1 1 L ł 1 ł 1 1984 Table 2. Trend of ruffed grouse young per 100 aduits, 1981-91. 1 1 1 ł 1 I. 1 ł 1 Т I f 1 ÷ I. 1 1 1 1 1 1983 200 200 ; 88 **475** T 1 1 1 I ĝ 3 ł : 1 ł. 18 1 I. t 1 ŧ 1 ł ł ł 1 1982 380 1 I 1 + 5 414 1 ł. I ł L I. I. 비춯 Ł 1 1 I 1 I. 1 1981 267 250 188 380 1 ł t ; 282 5 <del>2</del> t 30 18 520 ł 1 1 t I. - IE 1 1 ł ł 1 **REGIONAL TOTALS REGIONAL TOTALS REGIONAL TOTALS** REGIONAL TOTALS **REGIONAL TOTALS** Northeastern Region Region and Southeastern Region Northern Region County Southern Region STATE TOTALS **Central Region** Box Elder Washington Salt Lake Morean Sanpete Summit Wasatch Garfield Duchesne Cache Weber San Juan Davis **Fonele** Jeaver Daggett Willard Wayne Sevier Uintah Carbon Juab Emery či li Utah Grand Kane E

| Lable 3. If enu of average prove  |          |                |      |            |      | Year |              |             |      |           | 1001    | 00 1001  |
|---|----------|----------------|------|------------|------|------|--------------|-------------|------|-----------|---------|----------|
| Region and  |          |                | 1001 | 1004       | 1085 | 1986 | 1987         | 1988        | 1989 | 1990      | 1991    | 196-1961 |
| County 1  | 1981     | 19%2           | 241  | 1204       |      |      |              |             |      |           |         |          |
| Northern Region   |          |                | •    |            |      | 00.6 | 1 00         | 3.00        | 1    | 3.00      | 5.00    |          |
| ttav Fider  | 1        | 1              | 3.00 | 1          | ł    | 20.7 |              | 4 00        | 1 00 | 1,00      | 3.00    |          |
|   | :        | 1              | 7.00 | ı          | 3.50 | 1.00 | <b>9.14</b>  | 00°#        |      |           | ·       |          |
| Kue .   |          | 1              | I    | ł          | ;    | 1    | 1            | 4.00        | ł    | I         | -       |          |
| Davis   | 1        | I              | 6 DD | 1          | 1    | ;    | I            | 1           | ł    | ł         | <b></b> |          |
| Mergan  | ۱        | 1              | 00.0 |            | 5 67 | 1 00 | ١            | 1           | 3.00 | 1         | 1       |          |
| Rich  | ;        | ١              | I    | 1          | 10.0 | 0.00 | 2 00 Z       | I           | 3.00 | 4.50      | 4.00    |          |
|   | 2.00     | 1              | ł    | ł          | 3.33 | 4.00 | <b>70.</b> C |             |      | '  <br>-  | 7 00    |          |
|   |          | I              | ł    | ۱          | 3.00 | 1    | 4.75         | 10.5        | •    |           |         | 1.6 6    |
|   | 4.W      | -              | 2    |            | 4 44 | 2.60 | 3.93         | 3.64        | 3.00 | 3.75      | 4.13    | 11.0     |
| REGIONAL TOTALS   | 3.33     | :              | 2:00 | ,<br> <br> |      |      |              |             |      |           |         |          |
| Central Region  |          |                |      |            |      |      |              | •           | I    | 1         | I       |          |
|   | ۱        | 1              | 1    | ł          | ł    | ١    | ł            | I           |      |           | I       |          |
| Juan  |          |                | 1    | 1          | 1    | ł    | 1            | ı           | I    | ł         |         |          |
| Salt Lake   | 07.7     | ۱ <sup>۱</sup> |      |            | 7.00 | I    | 1            | 1           | I    | I         | 3.00    |          |
| Sannele   | 5.47     | 5.47           | 4.75 | I          |      |      |              | ł           | ł    | I         | 1       |          |
| Tondo   | ı        | 4.00           | 1    | I          | 1    | 1    |              | 00 5        | 1 00 | I         | 1       |          |
|   | 1 00     | 1              | :    | I          | ı    | 4.60 | 9.2.0        | <b>M</b> .c | 2000 | 4 70      | 1       |          |
| Utan  |          |                | 0.00 | I          | ł    | 1    | 1            | ,           | :    |           |         |          |
| Wasatch   | ,<br>    | ŀ              |      |            | 100  | 4.60 | 3.20         | 3.00        | 3.00 | 4.70      | 8.8     | 4.43     |
| REGIONAL TOTALS   | 4.57     | 5.13           | 77.0 |            |      |      |              |             |      | •         |         |          |
| Southern Region   |          |                |      |            |      |      | 1            | 1           | ł    | I         | ı       |          |
| Beaver  | ł        | 1              | ;    | 1          | •    | ł    |              | 1           | :    | 1         | 1       |          |
|   | 1        | 1              | ł    | 1          | 1    | I    | I            |             |      | 1         | ļ       |          |
|   | 1        | ۱              | 1    | ı          | 1    | I    | ł            | 1           | ł    | l         | 1       |          |
| lron  | l        | ſ              | I    | ;          | ł    | 1    | 1            | ١           | 1    | I         | ۱       |          |
| Kane  | 1        | ł              |      | 1          | 1    | 1    | I            | t           | 1    | 1         | ۱       |          |
| Millard   | ۱        | 1              | 1    |            |      | 1    | I            | I           | 1    | I         | ŀ       |          |
| Piute   | ł        | 1              | 1    | 1          | I    |      | 1            | 4.50        | I    | <b>'1</b> | ı       |          |
| Sevier  | 5.00     | 1              | ı    | 1          | I    | I    | ļ            |             | 1    | t         | 1       |          |
| attenden en e  | ł        | 1              | ı    | t          | ł    | 1    | ł            | 1           |      | 5 00      | I       |          |
|   |          | 1              | 1    | ١          | 1    | :    | •            | 1           |      |           |         | 4 83     |
|   |          |                | 1    | i          | 1    | •    | 1            | 4.50        | 1    | Bic       |         |          |
| REGIONAL TUTALS   | M'C      |                |      |            |      |      |              |             |      |           |         |          |
| Northeastern Region   |          |                |      |            | 1    | ł    | 1            | I           | 3.00 |           | 1       |          |
| Daggett   | 4.75     | 1              | 1    | I          |      | 1    | I            | 1           | 4.00 | 6.00      | 1       |          |
| Duchesue  | 7.00     | ı              | 1    | ı          | 1    | 1    | 4 00 V       | 1           | 4.00 | 6.00      | 1       |          |
| line in the second s | 1        | ١              | 1    | ţ          | :    | 1    |              |             | 3 75 | 6.00      |         | 4.74     |
| UNITAR TOTALS   | 5.20     | :              | 1    | 1          | ,    | 1    | 4°.8         | 1           | 21.0 |           |         |          |
| C. theretary Darion   |          |                |      |            |      |      |              |             |      | 1         | ł       |          |
|   | I        | ı              | 1    | 1          | ł    | :    | 1            | 1           | ł    | i         |         |          |
| Carbon  | 1        |                | I    | t          | 1    | 1    | 3.00         | ł           | ł    | I         | 1       |          |
| Emery   | 1        | 1              |      | 1          | I    | 1    | 1            | ł           | ł    | I         | L       |          |
| Grand   | <b>۱</b> | ı              | I    | l          | 1    | 1    | 1            | ı           |      | 1         | 1       |          |
| San Juan  | •        | 1              | :    |            |      |      | 80.5         | 1           | 1    | 1         | 1       |          |
| <b>BECIONAL TOTALS</b>  | I        | :              | ;    | :          |      |      |              | 2 71        | 3 30 | 4.75      | 4.00    | 4.30     |
|   |          |                |      |            |      |      |              |             |      |           |         |          |

Table 4. Trend of ruffed grouse observed per 100 hours, 1981-91.

A

| Ration and             |      |      |            |          |       |      |                 |      |      |      |            |         |
|------------------------|------|------|------------|----------|-------|------|-----------------|------|------|------|------------|---------|
|                        | 1007 |      |            |          |       | Year |                 |      |      |      |            | Average |
| County                 | INKI | 1982 | 1943       | 1984     | 1985  | 1986 | 1987            | 1988 | 1989 | 1990 | 1661       | 1980-90 |
| Northern Region        |      |      |            |          |       |      |                 |      |      |      |            |         |
| Box Elder              | ł    | 1    | 38         | ł        | 1     | 80   | 31              | 100  | 1    | 64   | 20         |         |
| Cache                  | ł    | ŝ    | 9          | 1        | 11    | 20   | 28              | 17   | 46   |      | 2          |         |
| Davis                  | I    | 1    | I          | 1        | ł     | :    |                 | 114  | 2 1  | 5 I  | 2 1        |         |
| Morgan                 | 1    | I    | 51         | <b>1</b> | 7     | t    | 1               | 1    | 4    | ĺ    | Ş          |         |
| Rich                   | ;    | 1    | 1          | 1        | 1.150 | 5    | ;               | 50   | . 1  |      | 5          |         |
| Summit                 | I    | ;    |            |          | 2     | 2    |                 | 5    |      | 1    | 1          |         |
| Webse                  | 1 2  | :    | I          | I        | 2     | 5    | B,              | 1    | •    | 40   | 2          |         |
| W EDET                 | ₹    | 1    | :          | 1        | 21    | ŧ    | 267             | 178  | 1    | 1    | 26         |         |
| <b>REGIONAL TOTALS</b> | 9    | 1    | 1          | 1        | 26    | 30   | 56              | 62   | 77   | 13   | 32         | 25      |
| Central Region         |      |      |            |          |       |      |                 |      | ľ    |      |            |         |
| Juab                   | t    | I    | 1          | ł        | ;     | ;    | ;               | I    | ;    | I    | I          |         |
| Salt Lake              | 70   | 1    | ł          | ;        | 1     | 167  | ł               | ł    | ł    | I    | I          |         |
| Sannete                | 515  | 201  | 171        | 1        | 160   | 6    | •               | 1    | I    | I    | I <b>;</b> |         |
| Tando                  |      |      |            | 1        | 101   | I    | 1               | 1    | I    | 1    | 7          |         |
|                        | 1    | 099  | ł          | ł        | 1.    | ł    | 1               | 1    | ļ    | 1    | 1          |         |
| Utah                   | 14   | 38   | <b>6</b> 3 | ı        | 1     | 400  | 50              | 133  | 133  | I    | ł          |         |
| Wasatch                | 9    | 1    | 1          | 86       | 1     | 1    | 25              | 1    | ı    | 46   | ł          |         |
| REGIONAL TOTALS        | 98   | 144  | 63         | \$       | 1     | 88   | 8               | 133  | 133  | 28   | -          | 8       |
| Southern Region        |      |      |            |          |       |      |                 |      |      |      | ,          | 5       |
| Beaver                 | :    | I    | I          | I        | :     | 1    | 1               | 1    | 1    | 1    | 1          |         |
| Garfield               | :    | 1    | 1          | :        | 1     | 1    | 1               | ;    | I    | 1    | 1          |         |
| lron                   | 1    | 1    | 1          | :        | I     | :    | 1               | i    | ł    | I    | 1          |         |
| Kane                   | 1    | 1    | 1          | 1        |       | ;    | ;               | I    | ł    |      | : 1        |         |
| Millard                | 1    | 1    | ;          | I        | I     | ł    | 1               |      | l    | I    | ł          |         |
| Pinte                  | 1    | I    | 1          | 1        |       |      | l               | I    | 1    | I    | \$         |         |
| Sevier                 |      |      | t i        | l        | ł     | 1    | ł               | 1    | I    | I    | t          |         |
| Workinsten             | 4    | I    | ł          | :        | I     | ł    | ł               | 861  | I    | 1    | ł          |         |
| W ASIMU GOD            | :    | 1    | 1          | :        | I     | ;    | 1               | 1    | ł    | ı    | ı          |         |
| wayne                  | -    | 1    | :          | 1        | I     | :    | 1               | I    | 1    | I    | 1          |         |
| REGIONAL TOTALS        | 7    | 1    | ;          | 1        | 1     | :    | 1               | 138  | t    | 433  | ı          | 191     |
| Northeastern Region    |      |      |            |          |       |      |                 |      |      |      |            |         |
| Daggett .              | 164  | ł    | ;          | ł        | 1     | ı    | ı               | 1    | 109  | . 1  | 1          |         |
| Duchesne               | 12   | 1    | ł          | ł        | 1     | 1    | 4               | 1    | 33   | 175  | 1          |         |
| Uintah                 | 350  | ł    | ł          | 1        | ł     | ł    | 89              | I    | 28   | 180  | I          |         |
| REGIONAL TOTALS        | 26   | 1    | :          | :        | ,     | +    | 38              | ,    | 38   | 105  | :          | 4       |
| Southenstern Region    |      |      |            |          |       |      |                 |      |      |      |            | :       |
| Carbon                 | 1    | :    | 1          | ;        | 1     | 1    | ı               | 1    | ;    | :    | ı          |         |
| Emery                  | ı    | :    | ł          | ł        | 1     | 0    | 400             | 1    | :    | ł    | :          |         |
| Grand                  | :    | 1    | 1          | 1        | I     | 0    | ;               | 1    | 1    | I    | 1          |         |
| San Juan               | :    | 1    | :          | I        | . 1   | 1    | ł               | 1    | I    | 1    | I          |         |
| REGIONAL TOTALS        | ;    | 1    |            | 1        | :     | -    | <del>4</del> 00 | :    | .    |      | 1          | 300     |
| STATE TOTALS           | 27   | \$   | 6          | 8        | 22    | 47   | \$              | 2    | 36   | #    | r<br>F     | 1       |
|                        |      |      |            | ;        |       | :    | ,               | ;    |      | 2    | 3          | F       |
|                        |      |      |            |          |       |      |                 |      |      |      |            |         |

.

-

| and Broads<br><u>iy</u> # Adults You<br>jour 1 1 1<br>4 4 4 1<br>2 2 2 1<br>2 2 1<br>2 2 1<br>2 2 1<br>2 2 1<br>1 1 4 4<br>1 1 1 4 4<br>1 1 4 4<br>1 1 1 1 4 4<br>1 1 1 1 4 4<br>1 1 1 1 1 4 4<br>1 1 1 1 1 1 4 4<br>1 1 1 1 1 1 1 4 4<br>1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | 2 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | & Adults         Xoung           Adults         Voung           -         -           - | <b>1 1 1</b> | Adults w/o<br>Young | Total<br>Adults<br>1<br>4 | Total<br>Young | Young/<br>100 Adults<br>400 | Vehicle<br>Miles | Vehicle | 뵈리       | f Effort<br>Walk | Total | Birds/<br>100 Hr |
|--|---|---|--------------|---------------------|---------------------------|----------------|-----------------------------|------------------|---------|----------|------------------|-------|------------------|
| ception and<br>The Region and<br>der County #<br>The County #<br>T   |   | Aduits Y  |              |                     | Adults<br>1<br>4          | Young          | 100 Adults                  |                  | Vehicle |          | Walk             | Total | 100 Hr           |
| n Region 1<br>der Eine 1<br>n Region 2<br>ke 5<br>ke 5<br>ke 5<br>ke 5<br>ke 5<br>ke 5<br>ke 1<br>he 1                       |   | 1.1.1.1.1.1.1.1.4.0.1   |              |                     | 1 4                       | I              | 644                         |                  |         |          |                  |       |                  |
| der 1 1<br>1 4 4<br>1 2 2 2<br>k 5 5<br>k 6 4<br>1 9 9<br>NAL TOTALS 19 19<br>ake 7 7<br>14 14<br>ch 7 14<br>ch 7 14<br>ch 7 14<br>ch 14<br>ch 7 1 |   | 1.1.1.1.1.1.1.401   | ; ••         |                     | د<br>ک                    |                | 400                         |                  |         |          |                  |       | ••               |
| r<br>r<br>r<br>r<br>r<br>r<br>r<br>r<br>r<br>r<br>r<br>r<br>r<br>r   |   | 111111 11401  | 9            | 1                   | 4                         | 4              | 400                         | 1                | 1       | 24       | 1                | 47    | 17               |
| n 2 2 2<br>k 5 5 5<br>h 4 4<br>NAL TOTALS 19 19<br>NAL TOTALS 19 19<br>ake 5 5 5<br>ch 7 14 14<br>ch 7 14 14<br>ch 7 14 14<br>ch 7 16<br>ch 7 14 14<br>ch 7 16<br>ch 7 16<br>c      |   | 11111 11401   |              | ł                   | •                         | 24             | 600                         | 1                | 17      | ł        | ł                | 17    | 165              |
| VAL TOTALS 19 19<br>VAL TOTALS 19 19<br>Region<br>Region<br>a Region<br>a Region<br>a Region<br>a Region   |   | 1111 11401  | 1            | 7                   | 5                         | 13             | 260                         | ł                | 13      | 1        | 8                | 31    | 8                |
| AL TOTALS     19     19       VAL TOTALS     19     19       Region     -     -       e     -     -       NAL TOTALS     14     14       n     -     -       r     -     -       n     -     -       n     -     -       n     -     -       n     -     -       n     -     -       n     -     -       n     -     -       n     -     -       n     -     -       n     -     -   |   | 1111 114010   | I            | 1                   | 1                         | I              | 1                           | 1                |         | 11       | Ħ                | 26    | 1                |
| nit 5 5 5<br>r 10NAL TOTALS 19 19<br>rai Region  |   | 1111 114010   | l            | ł                   | •                         | 12             | 600                         | ı                | ;       | œ        | 1                | œ     | 175              |
| Region 5 5 5 19 19 19 19 18 19 19 19 19 19 19 19 19 19 19 19 19 19   |   | 111 114010  | 1            | 1                   | 4                         | 1 5            | 165                         | ł                | 2       | 2        | 1                | 15    | 55               |
| AMAL TOTALS         4         4           Region         19         19           Re         -         -           Inval         14         14           Inval         -         -           Inval         -   |   | 1 1 1 1 4 00 1 50   | 1            | •                   | =                         | = :            |                             | 1                | 1 9     | 6 5      | : =              | 5 5   | 5                |
| NAL TOTALS 19 19 Region Region C Region C Region C Region C R Region C R R R R R R R R R R R R R R R R R R   |   | 1 1 1 4 0 1 5   | 1            | •                   | -                         | £              | 981                         |                  |         | <b>≥</b> | = :              |       | 3                |
| al Region  |   | 114016  | 9            | Ξ                   | 30                        | 8              | 111                         | 1                | 22      | 103      | 8                | 8     | 3                |
| ake  |   | 1114012   |              |                     |                           |                |                             |                  |         |          |                  |       |                  |
| ake  |   | 1 4 0 1 5   | 1            | I                   | :                         | 1              | ł                           | 1                | I       | t        | 1                | 1     | 1                |
| AL TOTALS 14 14  |   | 40 1  | 1            | 1                   | 1                         | 1              | 1                           | 19               | 64      | ł        | ł                | 1     | I                |
| 46       5       5       5         6       9       9       9         fch       -       -       -   |   | 40 12   |              | ł                   | :                         | . <b>:</b>     | :                           | 228              | 15      | 1        | 1                | 15    | ł                |
| e 5 5 5<br>tch 14 14<br>(ONAL TOTALS 14 14<br>err Region 1 1 14<br>eld 1 1 1 11<br>rd 1 1 11   |   |   | 1            | Ţ                   | 13                        | 30             | 231                         | ł                | :       | 1        | ł                | I     | I                |
| tch  |   | 0 ; F   | 1            |                     | 2                         | 7              | 170                         | 118              | œ       | •        | I                | 17    | 318              |
| 141 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |   |   | n            | 5                   | Ì                         |                | 1                           | 171              | 18      | 7        | I                | 20    | ł                |
| <b>14</b><br>1 1 1 1 1 1 1 1 1<br><b>1</b>   |   | -   | ,            |                     |                           |                |                             |                  | 5       | =        |                  | 24    | 180              |
| err Region<br>er<br>ield   | 17 3.36                                 |   | 5            | 17                  | S                         | Z              | 134                         | 000              | ÷       |          |                  |       |                  |
|  |   |   |              |                     |                           |                |                             |                  |         |          |                  |       | I                |
|  | ı<br>t                                  | :   | 1            | 1                   | ł                         | I              | :                           | ł                | 1       | 1        | ł                | I     |                  |
|  | 1                                       | 1   | 1            | 1                   | ;                         | I              | 1                           | 1                | I       | 1        | I                | 1     |                  |
|  | 1                                       | 1   | 1            | ı                   | 1                         | 1              | 1                           | I                | I       | 1        | I                |       | 1                |
| ;;;;   | :                                       | 1   | 1            | I                   | 1                         | 1              | I                           | I                | ł       | 1        | I                | I .   |                  |
| 11   | 1                                       | ł   | I            | 1                   | :                         | ł              | 1                           | 1                | 1       | 1        | 1                | 1     |                  |
| 1  | 1                                       | ł   | 1            | I                   | 1                         | ł              | I                           | 1                | I       | 1        | 1                | ł     | ł                |
|  | :                                       | ł   | 1            | 1                   | :                         | ł              | I                           | I                | I       | 1        | 1                | 1     | 1                |
| Washington   | :                                       | I   | ;            | 1                   | :                         | ŀ              | ı                           | ł                | ł       | 1        | 1                | 1     |                  |
| ~ ~  |   | 1   |              | 9                   | 13                        | 32             | 246                         | ŝ                | 7       | 1        | 1                | 7     | 2,250            |
| NAL TOTALS 7 7   | 32 4.57                                 | 1   | 1            | 9                   | 13                        | 32             | 246                         | 30               | 1       | 1        | 1                | 7     | 2,250            |
| Northeastern Region  |   |   |              |                     |                           |                |                             |                  |         |          |                  |       |                  |
| Danrett  | 1                                       | ł   | 1            | ł                   | ł                         | I              | I                           | :                | 1       | 1        | I                | 1     |                  |
| 1  | 1                                       | ł   | I            | ł                   | 1                         | 1              | 1                           | 1                | ł       | 1        | 1                | 1     | 1                |
|  | 1                                       | , <b>1</b>  | 1            | :                   | 1                         | '              | 1                           | 1                | 1       | :        | '                |       |                  |
| MAL TOTALS   | 1                                       |   | 1            | 1                   | :                         | 1              | 1                           | 1                | 1       | '        | 1                | 1     | 1                |
| İ.   |   |   |              | -                   |                           |                |                             |                  |         |          |                  |       |                  |
| Carbon   | :                                       | ł   | 1            | ł                   | 1                         | t              | ı                           | 1                | 1       | 1        | 1                | 1     | 1                |
| Finery   | 1                                       | 1   | <b>¦</b>     | t                   | :                         | I              | 1                           | 1                | 1       | 1        | 1 1              | 1 •   | I ç              |
| Crand 1 1  | 2 2.00                                  | 1   | :            | ł                   | 1                         | 6              | 200                         | 1                | 1       | I        | -                |       |                  |
| Con Inch   | 5 5.00                                  | I   | 1            | 1                   | 1                         | 2              | 200                         | :                | •       | -        | - -              | -     |                  |
| AT TOTALS 2  | 7 3.50                                  |   | ï            | 1                   | 2                         | 1              | 350                         | 1                | 1       | '        |                  |       | <b>\$</b> 2      |
| •  | 142 2 66                                | F   | 2            | 20                  | ×                         | 186            | 238                         | 566              | 100     | 114      |                  | 236   | 112              |

| ion and  |  | 1982 1983 19<br>5 00 7 | 1984         | 1985 | 1986        | 1987 | 1988  | 1989 | 1990   | 1991       | 1981-90 |
|--|--|------------------------|--------------|------|-------------|------|-------|------|--------|------------|---------|
| r Region 3<br>3 3<br>3 4<br>2 2 2<br>3 3<br>3 3<br>3 3<br>3 3<br>3 4<br>2 2 2<br>3 3<br>4<br>1 1 1 0 1 1 0 1 1 0 1 1 0 1 0 1 0 1 0 1 | 1982<br>4.00<br>4.00                               | 1983                   | 1984         |      | Iyko        | 1961 | 1700  | -    |        |            |         |
| r Region 3<br>3 ALL TOTALS 3<br>Region 6<br>h NAL TOTALS 3<br>1 Region 6   | 1 1 1 1 1 1 <del>1</del> 4<br>1 00                 | 90,2                   |              | 2    |             |      |       |      |        |            |         |
| r 3<br>3 3<br>AAL TOTALS 3<br>Region<br>k<br>h<br>h<br>AAL TOTALS 3<br>1<br>Region<br>u Region   |  | 5.00                   |              |      |             |      |       | 1.00 | 1.20   | 4.00       |         |
| 3<br>VAL TOTALS<br>Region<br>k<br>h<br>NAL TOTALS<br>u<br>Region   | 1 1 1 1 <del>4</del><br>1 1 1 1 <del>4</del><br>00 |                        | 7.00         | 1    | 7.0M        | 1    | 15    | 1 40 | 3 70   | 4 50       |         |
| AL TOTALS 3<br>Region 6<br>h<br>NAL TOTALS 4<br>h<br>NAL TOTALS 6<br>h   | + + + +  | 4.33                   | 1            | 3.33 | ;           | 3.07 | 0.0.0 |      |        | LL F       |         |
| AL TOTALS 3<br>Region Region 6<br>h NAL TOTALS 4<br>h NAL TOTALS 6   | 4.00   | 3.00                   | 5.50         | 3.67 | 3.00        | 2.83 | 4.00  | 00.4 | AC.0   |            |         |
| AL TOTALS 3<br>Region 6<br>h<br>NAL TOTALS 4<br>h<br>NAL TOTALS 6  | 4.00   | ł                      | 3.00         | 00.6 | ı           | 4.33 | 1     | ł    | I      | : 3        |         |
| nit<br>CONAL TOTALS<br>alke<br>tete<br>tete<br>tete<br>intch<br>DONAL TOTALS<br>ion<br>for Region  | 4.00   |                        | ł            | ı    | ł           |      | I     | 1    | 1      | 10.0       |         |
| AAL TOTALS<br>Region<br>h<br>NAL TOTALS  | 4.00   | 1                      |              | 1 50 | 1           | 2,00 | ı     | 3.00 | 4.00   | 3.40       |         |
| IRegion<br>ke<br>black<br>NAL TOTALS<br>NAL TOTALS<br>Sual ToTALS  | 4.00   | 1                      | 00.6         |      | 4 00        | 4.75 | 4.00  | 1    | ł      | 3.25       | 1       |
| INAL TOTALS  | 4.00   | ;                      | 1            | 00.0 | 10.4        | 00 6 | 1 64  | 3.86 | 4.30   | 4.05       | 4.05    |
| al Region<br>ake<br>te<br>tch<br>tch<br>ton<br>tern Region<br>ield   |  | 4.20                   | 4.83         | 4.73 | 3.5         | 00.0 | 0.0   | 2010 |        |            |         |
| ake<br>e<br>tch<br>IONAL TOTALS<br>er<br>ter<br>ter<br>ter   |  |                        |              |      |             |      |       |      | 7 00   | I          |         |
| ake<br>e<br>tch<br>tch<br>mern Region<br>ield  | 1  | 4.00                   | 4.00         | 0.00 | ŀ           | 1    | ł     | I    | AD-1   | l          |         |
| h<br>MAL TOTALS<br>m Region  |  | 1                      | 1            | ł    | ł           | 1    | I     | 1    | 1      | ł          |         |
| h<br>MAL TOTALS<br>m Region  |  |                        | ł            | ł    | ł           | 6.00 | ;     | 2.00 | ł      | 1          |         |
| h<br>MAL TOTALS<br>m Region  |  | 1                      |              | 1 10 | 2 10        | 141  | 6.00  | 6.00 | 3.13   | 3.60       |         |
| h<br>NAL TOTALS<br>m Region<br>d   |  | 3.83                   | I.           | 5    | 07.0        |      | 6.00  | N N  | 5,00   | 3.22       |         |
| tch<br>ONAL TOTALS<br>ern Region<br>etd  | 3.00   | 4.00                   | ł            | 3.50 | 1           | 3.43 | 00.0  |      |        | 1          |         |
| TALS   |  | 5.00                   | I            | I    | 1           | 1    | 1     | 1    |        | 200        | 101     |
| SIAI   |  | 4 00                   | 4.00         | 3.43 | 3.20        | 3.62 | 4.67  | 4.20 | 4.00   | 3.30       | 4.01    |
|  |  |                        |              |      |             |      |       |      |        |            |         |
|  |  |                        | 50 C         | 100  | 2.67        | 4.00 | 4.00  | ı    | 1      | 4          |         |
|  |  | 001                    |              |      | V CU        | 1 20 | ł     | I    | 1      | I          |         |
|  | 3.40   | 3.00                   | 3.24         | I    |             |      |       | 1    | I      | 1          |         |
|  | 1  | ı                      | I            | I    | 1           |      |       | !    | 1      | I          |         |
|  | 1  | 4.00                   | I            | 1    | <b>N0.1</b> | C1.4 |       | l    | 00 5   |            |         |
| 1 Cillerd  | 3.64   | 1                      | 2.67         | 4.00 | 4.00        | 4.25 | 1.50  | 1    | 00.0   | 1          |         |
|  | 150  | I                      | 4.00         | 3.00 | 3.00        |      | 1     | 1    | I      | <b>I</b> . |         |
|  |  | ) E()                  | 2.00         | 4.16 |             | 4.57 | 2.33  | l    | 1      | ł          |         |
| Sevier 3.44  | 4.04   | 06.4                   | 1017         |      | 1 50        | 5 11 | 1     | 1    | I      | 1          |         |
| Washington 5.00  | 1  | 3.67                   | 1            | 1 5  |             | 3 50 | 3.75  | 1    |        | 4.57       |         |
| Wavne  | 1  | 4.00                   | 1            | 0.00 |             | 2    | 1.5   |      | 100    | 4.57       | 3.44    |
| RECIONAL TOTALS 4.15   | 5 3.70   | 3.58                   | 2.95         | 3.21 | 3.53        | 4.12 | 11.7  |      |        |            |         |
| Northeastern Region  |  |                        |              |      | ļ           |      | 2.20  | 1 90 | 3.50   | 1          |         |
| Depett 4.45  | 5 4.91   | 4.33                   | ı            | :    | 51.6        | 4.71 |       |      | 6 00 X | 1          |         |
| Duchasna 3.60  | 0 3.88   | 3.40                   | ł            | 1    | 3.25        | 2.50 | 007   |      |        |            |         |
|  | 5 2.71   | 5.60                   | I            | 1    | 4.00        | 5.00 | 3.50  | 07.7 |        |            | 3.06    |
| WAT TOTALS   |  | 4.63                   | 1            | 1    | 3.56        | 4.52 | 3.00  | 3.29 | 4.33   | :          |         |
|  |  |                        |              |      |             |      |       |      |        |            |         |
|  | ا<br>ج   | 7.00                   | 3.00         | 3.00 | 5.00        | ı    | 1     | 1    | :      | 1          |         |
|  | 2  | I                      | ۱            | ;    | 1           | 4.00 | 4.00  | I    | 1      | 1          |         |
| Emery  |  | l                      | 1            | 100  | 3.25        | ļ    | 2.78  | 3.00 | 1      | 2.00       |         |
| Grand 2.50   |  | 1                      |              | 0012 | 1           | 3.00 | 3.00  | 3.00 | 1      | 5.00       |         |
|  |  | 4.00                   | <u>c</u> , 1 | 00.0 | 1 60        | 150  | 2.93  | 3.00 | 1      | 3.50       | 3.29    |
| REGIONAL TOTALS 2.60   | _  | 5.50                   | 2.17         | 9.00 | 00.0        |      |       | 3.61 | 4.19   | 3.88       | 3.75    |
| STATE TOTALS 3.97  | 97 4.06  |                        | 3.18         | 3.56 | 5.44        | 4.00 | 44.0  | -    |        |            |         |

| Region and          |      | Region and |            |      |              | Year |             |       |       |        |          | Average |
|---------------------|------|------------|------------|------|--------------|------|-------------|-------|-------|--------|----------|---------|
| County              | 1981 | 1982       | 1983       | 1984 | 1985         | 1986 | 1987        | 1988  | 1989  | · 1990 | 1661     | 1981-90 |
| Northern Region     |      |            |            |      |              |      | -           |       |       |        |          |         |
| Box Elder           | 230  | I          | 64         | 38   | t            | 20   | ÷           | 1     | ł     | 200    | 21       |         |
| Cache               | 74   | I          | 14         | :    | 11           | ŧ    | 11          | 26    | 114   | 801    | 165      |         |
| Davis               | ۲    | 1          | 33         | 110  | 94           | 50   | 232         | 300   | 120   | 426    | <b>%</b> |         |
| Morgan              | ŧ    | ı          | च          | 200  | 23           | 4    | 59          | 1     | 17    |        | 1        |         |
| Rich                | I    | 1          | ı          | ł    | ł            | 53   | •           | ¢     | ł     | :      | 175      |         |
| Summit              | 293  | ı          | 1          | 12   | 38           | I    | 906         | ł     | 21    | 101    | 55       |         |
| Weber               | 174  | 11         | 4          | ł    | 167          | 100  | 267         | 26    | ł     | ł      | 6S       |         |
| REGIONAL TOTALS     | 121  | 20         | 15         | 58   | 28           | 27   | 109         | 66    | 79    | 133    | 63       | 88      |
| Central Region      |      |            |            |      |              |      |             |       |       |        |          |         |
| Juab                | 73   | I          | 29         | 125  | Ē            | 156  | ¢           | 1     | •     | 800    | ł        | •       |
| Salt Lake           | 36   | 48         | 14         | ł    | I            | ı    | 400         | ł     | ı     | :      | -1       |         |
| Sanpete             | 1    | 281        | 1          | ı    | I            | I    | 1,400       | ;     | 14    | 4      | 1        |         |
| Tonele              | 271  | I          | 344        |      | 536          | 444  | 206         | 1,000 | 1,000 | 233    | ł        |         |
| Utah                | 23   | 36         | 32         | ł    | 165          | ı    | 229         | 367   | 367   | 113    | 318      |         |
| Wasatch             | 1    | 5          | 20         | I    | 1            | I    | ¢           | :     | 1     | 1      | I        |         |
| REGIONAL TOTALS     | 55   | 127        | 8          | 11   | 183          | 254  | 194         | 683   | 22    | 75     | 180      | 175     |
| Southern Region     |      |            |            |      |              |      |             |       |       |        |          |         |
| Beaver              | 46   | 220        | 133        | 233  | æ            | 137  | 175         | 164   | ı     | ı      | I        |         |
| Garfield            | I    | 1          | 1          | ı    | 122          | 141  | 195         |       | ł     | 100    | 1        |         |
| Iron                | I    | ı          | ł          | I    | ł            |      | 1,200       |       | ı     | ;      | 1        |         |
| Kane                | I    | I          | 122        | I    | 213          | 257  | 383         | 127   | ł     | 1      | 1        |         |
| Millard             | I    | 248        | 15         | 107  | 133          | 200  | 525         | 100   | I     | ı      | 1        |         |
| Pinte               | 557  | 225        | 1          | 200  | 67           | 266  | ;           | ł     | 1     | ł      | I        |         |
| Sevier              | 20   | 48         | <b>9</b> 5 | 11   | 1 <b>55</b>  | ł    | 275         | 738   | 1     | ı      | I        |         |
| Washington          | 800  | ı          | 117        | I    | I            | 333  | 950         | 1     | 1     | ł      | t        |         |
| Wayne               | I    | ı          | <b>.</b>   | I    | 700          | 1    | 450         | 475   | 1     | 1      | 2,250    |         |
| REGIONAL TOTALS     | 41   | 74         | 8          | 122  | 140          | 178  | 309         | 247   | ı     | 2010   | 2,250    | 155     |
| Northeastern Region |      |            |            |      |              |      |             |       |       | -      |          |         |
| Daggett             | 736  | 389        | 632        | ı    | 1            | 300  | 1,255       | 230   | 265   | 286    | ł        |         |
| Duchesne            | 75   | 126        | 51         | ł    | 1            | 5    | 64          | 121   | ı     | 175    | 1        |         |
| Uintah              | 308  | 54         | 239        | ł    | 1            | 600  | - <b>22</b> | 37    | 48    | 320    | 1        |         |
| REGIONAL TOTALS     | 228  | 138        | 232 .      | :    | 1            | 126  | 286         | 120   | 95    | 46     | 1        | 159     |
| Southeastern Region |      |            |            |      |              |      |             |       |       |        |          |         |
| Carbon              | 17   | ł          | 8          | 23   | 33           | 8    | 1           | r     | 1     | 1      | 1        |         |
| Emery               | ;    | 1          | :          | ;    | ł            | :    | <b>200</b>  | 1     | I     | ł      | t        |         |
| Grand               | 1    | t          | ı          | 50   | 360          | 120  | 300         | 1     | 8     | ;      | 300      |         |
| San Juan            | 218  | :          | 100        | 13   | . <b>2</b> 3 | 1    | 400         | 1     | 400   | ı      | 600      |         |
| REGIONAL TOTALS     | 128  | 1          | ŝ          | 9    | 123          | 8    | 400         | 1     | 88    | I      | 450      | 140     |
|                     |      |            |            |      |              |      |             |       |       |        |          |         |

| Table 9. Summary of effort<br>Region and | Vehicle |         | Hours of   | Effort |          |
|--|---------|---------|------------|--------|----------|
| County                                   | Miles   | Vehicle | Horse      | Walk   | Total    |
| Northern Region                          |         |         |            |        |          |
| Box Elder                                |         |         | 24         |        | 24       |
| Cache                                    | •       | 17      |            |        | . 17     |
| Davis                                    |         | 13      |            | 8      | 21       |
| Morgan                                   |         | 3       | 22         | 1      | 26       |
| Rich                                     | ·       |         | 8          |        | 8        |
| Summit                                   |         | 12      | 39         | -      | 51       |
| Weber                                    |         | 10      | 10         | 11     | 31       |
| <b>REGIONAL TOTALS</b>                   |         | 55      | 103        | 20     | 178      |
| Central Region                           |         |         |            |        |          |
| Juab                                     |         |         |            | -      |          |
| Salt Lake                                | 19      | 2       |            |        | 2        |
| Sanpete                                  | 228     | 15      |            |        | 15       |
| Tooele                                   |         |         |            |        |          |
| Utah                                     | 118     | 8       | 9          |        | 17       |
| Wasatch                                  | 171     | 18      | 2          |        | 20       |
| REGIONAL TOTALS                          | 536     | 43      | 11         |        | 54       |
| Southern Region                          |         |         |            |        | <u> </u> |
| Beaver                                   |         |         |            |        |          |
| Garfield                                 |         |         |            |        |          |
| Iron                                     |         |         |            |        |          |
| Kane                                     |         | ••      |            |        |          |
| Millard                                  |         |         |            |        |          |
| Piute                                    |         |         |            |        |          |
| Sevier                                   | ••      |         |            |        | <br>•••  |
| Washington                               |         |         | - <u>-</u> |        |          |
| Wayne                                    | 30      | 2       |            |        | 2        |
| REGIONAL TOTALS                          | 30      | 2       |            |        | 2        |
| Northeastern Region                      |         |         |            |        |          |
| Daggett                                  |         |         |            |        |          |
| Duchesne                                 |         |         |            |        |          |
| Uintah                                   |         |         |            |        |          |
| REGIONAL TOTALS                          |         | **      |            |        |          |
| Southeastern Region                      |         |         |            | ·      |          |
| Carbon                                   |         |         | ••         |        |          |
| Emery                                    |         |         |            |        |          |
| Grand                                    |         | **      |            | 1      | 1        |
| San Juan                                 |         |         | ••         | 1      | 1        |
| REGIONAL TOTALS                          |         |         |            | 2      | 2        |
| STATE TOTALS                             | 566     | 100     | 114        | 22     | 236      |

Table 9. Summary of effort expended on forest grouse brood counts, 1991.

I.

Table 10. Summary of blue grouse hunter success and distribution of harvest and hunting pressure by region and county, 1991.

| REGION AND<br>COUNTY | SAMPLE<br>SIZE* | HUNTER-DAYS<br>AFIELD | BIRDS<br>BAGGED | BIRDS PER<br>HUNTER-DAY | <pre>% OF PRESSURE</pre> | <pre>% OF HARVES!</pre> |
|----------------------|-----------------|-----------------------|-----------------|-------------------------|--------------------------|-------------------------|
| NORTHERN REGION      |                 |                       |                 | *******                 |                          |                         |
| BOX ELDER            | 23              | 1,078                 | 1,322           | 1.23                    | 4.75                     | 6.20                    |
| CACHE                | 72              | 3,879                 |                 |                         |                          |                         |
| DAVIS                | 13              |                       | 3,740           | 0.96                    | 17.08                    | 17.55                   |
|                      |                 | 521                   | 626             | 1.20                    | 2.30                     | 2.94                    |
| Morgan               | 9               | 452                   | 434             | 0.96                    | 1.99                     | 2.04                    |
| RICH                 | 17              | 1,113                 | 748             | 0.67                    | 4.90                     | 3.51                    |
| SUMMIT               | 31              | 2,365                 | 1,026           | 0.43                    | 10.41                    | 4.82                    |
| WEBER                | 21              | 1,217                 | 991             | 0.81                    | 5.36                     | 4.65                    |
| REGIONAL TOTALS      | 186             | 10,629                | 8,889           | 0.84                    | 46.79                    | 41.72                   |
| CENTRAL REGION       |                 |                       | * * * * * *     |                         |                          |                         |
| JUAB                 | 5               | 156                   | 173             | 1.11                    | 0.69                     | 0.82                    |
| SALT LAKE            | 7               | 243                   | 156             | 0.64                    | 1.07                     |                         |
| SANPETE              | 19              | 800                   |                 |                         |                          | 0.73                    |
|                      |                 |                       | 1,113           | 1.39                    | 3.52                     | 5.22                    |
| TOOELE               | 23              | 974                   | 1,200           | 1.23                    | 4.29                     | 5.63                    |
| UTAH                 | 22              | 1,182                 | 1,739           | 1.47                    | 5.21                     | 8.16                    |
| WASATCH              | 16              | 835                   | 504             | 0.60                    | 3.68                     | 2.37                    |
| REGIONAL TOTALS      | 92              | 4,192                 | 4,888           | 1.17                    | 18.45                    | 22.94                   |
| SOUTHERN REGION      |                 |                       |                 | *                       |                          |                         |
| BEAVER               | 12              | 661                   | 626             | 0.95                    | 2.91                     | 2.94                    |
| GARFIELD             | 10              | 382                   | 330             | 0.86                    | 1.68                     | 1.55                    |
| IRON                 | 6               | 748                   | 469             |                         |                          |                         |
| KANE                 | 4               |                       |                 | 0.63                    | 3.29                     | 2.20                    |
|                      | -               | 434                   | 104             | 0.24                    | 1.91                     | 0.49                    |
| MILLARD              | 12              | 626                   | 661             | 1.06                    | 2.76                     | 3.10                    |
| PIUTE                | 4               | 191                   | 139             | 0.73                    | 0.84                     | 0.65                    |
| SEVIER               | 45              | 2,539                 | 2,365           | 0.93                    | 11.18                    | 11.10                   |
| WASHINGTON           | 2               | 69                    | 173             | 2.50                    | 0.31                     | 0.82                    |
| WAYNE                | 6               | 156                   | 173             | 1.11                    | 0.69                     | 0.82                    |
| REGIONAL TOTALS      | 101             | 5,810                 | 5,044           | 0.87                    | 25.58                    | 23.67                   |
| NORTHEASTERN REGI    | <br>[ON         |                       |                 |                         |                          |                         |
| DAGGETT              | 8               | 243                   | 365             | 1.50                    | 1.07                     | 1.71                    |
| DUCHESNE             | · 9             | 295                   | 469             | 1.59                    | 1.30                     | 2.20                    |
| UINTAH               | 23              | 1,235                 | 1,287           | 1.04                    | 5.44                     | 6.04                    |
| REGIONAL TOTALS      | 40              | 1,774                 | 2,122           | 1.20                    | 7.81                     | 9.96                    |
| SOUTHEASTERN REGI    |                 |                       |                 |                         |                          |                         |
| CARBON               | 4               | 86                    | 173             | 2.00                    | 0.38                     | 0 93                    |
| EMERY                | i               | 17                    | 52              | 3.00                    |                          | 0.82                    |
| GRAND                | 2               | 69                    | 52              |                         | 0.08                     | 0.24                    |
| SAN JUAN             | 3               | 139                   | 52<br>86        | 0.75<br>0.63            | 0.31<br>0.61             | 0.24<br>0.41            |
| REGIONAL TOTALS      | 10              | 313                   | 365             | 1.17                    | 1.38                     | 1.71                    |
| UNKNOWN              | 0               |                       | 0               | 0.00                    |                          |                         |
|                      |                 |                       |                 |                         | 0.00                     | 0.00                    |
| STATE TOTALS         | 429             | 22,719                | 21,310          | 0.94                    | 100.00                   | 100.00                  |

\*Total hunter trips from questionnaire returns.

| REGION AND<br>COUNTY | SAMPLE<br>SIZE* | HUNTER-DAYS<br>AFIELD | BIRDS<br>BAGGED                       | BIRDS PER<br>HUNTER-DAY | % OF<br>PRESSURE | % OF<br>HARVESI |
|----------------------|-----------------|-----------------------|---------------------------------------|-------------------------|------------------|-----------------|
| NORTHERN REGION      |                 |                       | · · · · · · · · · · · · · · · · · · · |                         |                  |                 |
| BOX ELDER            | 15              | 904                   | 591                                   | 0.65                    | 5.78             | 4.90            |
| CACHE                | 49              | 2,974                 | 2,070                                 | 0.70                    | 19.02            | 17.15           |
| DAVIS                | 6               | 487                   | 382                                   | 0.79                    | 3.11             | 3.17            |
| MORGAN               | 12              | 574                   | 574                                   | 1.00                    | 3.67             | 4.76            |
| RICH                 | 12              | 556                   | 469                                   | 0.84                    | 3.56             | 3.89            |
| SUMMIT               | 24              | 1,530                 | 1,235                                 |                         | 9.79             | 10.23           |
| WEBER                | 21              | 1,409                 | 817                                   | 0.58                    | 9.01             | 6.77            |
| REGIONAL TOTALS      | 139             | 8,437                 | 6,140                                 | 0.73                    | 53.95            | 50.87           |
| CENTRAL REGION       |                 |                       |                                       |                         |                  |                 |
| JUAB                 | 3               | 52                    | 69                                    | 1.33                    | 0.33             | 0.58            |
| SALT LAKE            | 4               | 191                   | 121                                   | 0.64                    | 1.22             | 1.01            |
| SANPETE              | 11              | 556                   | 347                                   | 0.63                    | 3.56             | 2.88            |
| TOOELE               | 3               | 104                   | 156                                   | 1.50                    | 0.67             | 1.30            |
| UTAH                 | 24              | 1,078                 | 695                                   | 0.65                    | 6.90             | 5.76            |
| WASATCH              | 28              | 1,287                 | 1,061                                 | 0.82                    | 8.23             | 8.79            |
| REGIONAL TOTALS      | 73              | 3,270                 | 2,452                                 | 0.75                    | 20.91            | 20.32           |
| SOUTHERN REGION      |                 |                       |                                       |                         |                  |                 |
| BEAVER               | 6               | 365                   | 208                                   | 0.57                    | 2.34             | 1.73            |
| GARFIELD             | 1               | 17                    | 17                                    | 1.00                    | 0.11             | 0.14            |
| IRON                 | 1               | 86                    | 86                                    | 1.00                    | 0.56             | 0.72            |
| KANE                 | 1               | 347                   | 52                                    | 0.15                    | 2.22             | 0.43            |
| MILLARD              | 4               | 139                   | 121                                   | 0.88                    | 0.89             | 1.01            |
| PIUTE                | 4               | 347                   | 487                                   | 1.40                    | 2.22             | 4.03            |
| SEVIER               | 22              | 1,391                 | 1,148                                 | 0.83                    | 8.90             | 9.51            |
| WASHINGTON           | ō               | Ō                     | 0                                     | 0.00                    | 0.00             | 0.00            |
| WAYNE                | 1               | 52                    | 69                                    | 1.33                    | 0.33             | 0.58            |
| REGIONAL TOTALS      | 40              | 2,748                 | 2,191                                 | 0.80                    | 17.58            | 18.16           |
| NORTHEASTERN REGI    |                 |                       |                                       |                         |                  |                 |
| DAGGETT              | 5               | 173                   | 191                                   | 1.10                    | 1.11             | 1.59            |
| DUCHESNE             | 8               | 330                   | 295                                   | 0.89                    | 2.11             | 2.45            |
| UINTAH               | 11              | 347                   | 434                                   | 1.25                    | 2.22             | 3.60            |
| REGIONAL TOTALS      | 24              | 852                   | 922                                   | 1.08                    | 5.45             | 7.64            |
| SOUTHEASTERN REGI    |                 |                       |                                       |                         |                  |                 |
| CARBON               | 3               | 69                    | 52                                    | 0.75                    | 0.44             | 0.43            |
| EMERY                | 3               | 104 .                 | 69                                    | 0.67                    | 0.67             | 0.58            |
| GRAND                | 2               | 104                   | 208                                   | 2.00                    | 0.67             | 1.73            |
| SAN JUAN             | 2               | 52                    | 34                                    | 0.67                    | 0.33             | 0.29            |
| REGIONAL TOTALS      | 10              | 330                   | 365                                   | 1.11                    | 2.11             | 3.03            |
| UNKNOWN              | 0               | 0                     | 0                                     | 0.00                    | 0.00             | 0.00            |
| STATE TOTALS         | 286             | 15,639                | 12,073                                | 0.77                    | 100.00           | 100.00          |

Ī

ľ

Table 11. Summary of ruffed grouse hunter success and distribution of harvest and hunting pressure by region and county, 1991.

\*Total hunter trips from questionnaire returns.

| Table 12. | Summary of blue and ruffed grouse hunter success and distribution of |
|-----------|--|
|           | harvest and hunting pressure by region and county, 1991.             |

| narve                                  | st and nur      | ting pressure         | by regio.       | n and councy,           |                  |                 |
|--|-----------------|-----------------------|-----------------|-------------------------|------------------|-----------------|
| REGION AND<br>COUNTY                   | SAMPLE<br>SIZE* | HUNTER-DAYS<br>AFIELD | BIRDS<br>BAGGED | BIRDS PER<br>HUNTER-DAY | % OF<br>PRESSURE | % OF<br>Harvest |
| NORTHERN REGION                        |                 |                       |                 |                         |                  |                 |
| BOX ELDER                              | 51              | 2,800                 | 1,931           | 0.69                    | 6.59             | 5.53            |
|  | 152             | 6,610                 | 6,088           | 0.92                    | 15.55            | 17.45           |
| CACHE                                  | 30              | 1,200                 | 1,008           | 0.84                    | 2.82             | 2.89            |
| DAVIS                                  |                 |                       |                 | 0.94                    | 2.86             | 3.29            |
| MORGAN                                 | 28              | 1,217                 | 1,148           |                         |                  | 3.74            |
| RICH                                   | 48              | 2,104                 | 1,304           | 0.62                    | 4.95             | 6.83            |
| SUMMIT                                 | 53              | 3,287                 | 2,383           | 0.72                    | 7.73             |                 |
| WEBER                                  | 69              | 3,444                 | 1,757           | 0.51                    | 8.10             | 5.03            |
| REGIONAL TOTALS                        | 431             | 20,667                | 15,662          | 0.76                    | 48.61            | 44.77           |
| CENTRAL REGION                         |                 |                       |                 |                         |                  |                 |
| JUAB                                   | 14              | 400                   | 260             | 0.65                    | 0.94             | 0.75            |
| SALT LAKE                              | 13              | 504                   | 278             | 0.55                    | 1.19             | 0.80            |
| SANPETE                                | 44              | 1,548                 | 1,513           | 0.98                    | 3.64             | 4.34            |
| TOOELE                                 | 33              | 1,374                 | 1,409           | 1.03                    | 3.23             | 4.04            |
|  | 68              | 2,696                 | 2,609           | 0.97                    | 6.34             | 7.48            |
| UTAH                                   |                 |                       |                 |                         |                  |                 |
| WASATCH                                | 52              | 2,035                 | 1,548           | 0.76                    | 4.79             | 4.44            |
| REGIONAL TOTALS                        | 224             | 8,559                 | 7,619           | 0.89                    | 20.13            | 21.83           |
| SOUTHERN REGION                        |                 |                       |                 |                         |                  |                 |
| BEAVER                                 | 20              | 956                   | 904             | 0.95                    | 2.25             | 2.59            |
| GARFIELD                               | 12              | 417                   | 347             | 0.83                    | 0.98             | 1.00            |
| IRON                                   | 17              | 1,200                 | 678             | 0.57                    | 2.82             | 1.94            |
| KANÉ                                   | -,<br>7         | 539                   | 330             | 0.61                    | 1.27             | 0.95            |
|  | 19              | 800                   | 782             | 0.98                    | 1.88             | 2.24            |
| MILLARD                                |                 |                       |                 |                         |                  | 2.04            |
| PIUTE                                  | 11              | 713                   | 713             | 1.00                    | 1.68             |                 |
| SEVIER                                 | 78              | 3,792                 | 3,583           | 0.94                    | 8.92             | 10.27           |
| WASHINGTON                             | 4               | 104                   | 191             | 1.83                    | 0.25             | 0.55            |
| WAYNE                                  | 12              | 382                   | 226             | 0.59                    | 0.90             | 0.65            |
| REGIONAL TOTALS                        | 180             | 8,907                 | 7,758           | 0.87                    | 20.95            | 22.23           |
| NORTHEASTERN REG                       | ION             |                       |                 |                         |                  |                 |
| DAGGETT                                | 19              | 591                   | 574             | 0.97                    | 1.39             | 1.65            |
| DUCHESNE                               | 24              | 1,008                 | 782             | 0.78                    | 2.37             | 2.24            |
| UINTAH                                 | 42              | 1,739                 | 1,739           | 1.00                    | 4.09             | 4.99            |
| REGIONAL TOTALS                        | 85              | 3,340                 | 3,096           | 0.93                    | 7.86             | 8.87            |
| SOUTHEASTERN REG                       | TON             |                       |                 |                         |                  |                 |
| CARBON                                 | 11              | 382                   | 243             | 0.64                    | 0.90             | 0.70            |
| EMERY                                  | 5               | 156                   | 121             | 0.78                    | 0.37             | 0.35            |
| GRAND                                  | 3               | 138                   | 260             | 2.14                    | 0.29             | 0.35            |
| SAN JUAN                               | 8               | 382                   | 173             | 0.45                    | 0.29             | 0.75            |
| REGIONAL TOTALS                        | 27              | 1,043                 | 800             | 0.77                    | 2.45             | 2.29            |
| UNKNOWN                                | 0               |                       | 0               | 0.00                    | 0.00             | 0.00            |
| ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |                 |                       |                 |                         |                  |                 |
| STATE TOTALS                           | 947             | 42,517                | 34,897          | 0.82                    | 100.00           | 100.00          |
|  |                 |                       |                 |                         |                  |                 |

\*Total hunter trips from questionnaire returns.

| Region and       |      |          |      | <del></del> | Year         |              |          |      |
|------------------|------|----------|------|-------------|--------------|--------------|----------|------|
| County           | 1984 | 1985     | 1986 | 1987        | 1988         | 1989         | 1990     | 1991 |
| Northern Region  | 1704 |          | 2000 | 1/0/        |              | 1907         | <u> </u> | 1221 |
| Box Elder        | 0.60 | 0.45     | 0.60 | 0.68        | 1.03         | 0.99         | 0.97     | 0.69 |
| Cache            | 0.76 | 0.90     | 0.96 | 1.07        | 1.24         | 0.84         | 0.75     | 0.92 |
| Davis            | 0.66 | 0.50     | 0.50 | 0.71        | 0.98         | 0.78         | 1.02     | 0.84 |
| Morgan           | 0.44 | 0.88     | 0.64 | 1.00        | 0.99         | 1.23         | 0.94     | 0.94 |
| Rich             | 0.86 | 0.75     | 0.39 | 1.56        | 0.92         | 0.42         | 0.52     | 0.62 |
| Summit           | 0.54 | 0.70     | 0.63 | 1.25        | 0.86         | 0.89         | 0.49     | 0.72 |
| Weber            | 0.60 | 0.60     | 0.85 | 1.41        | 0.88         | 1.00         | 0.73     | 0.51 |
| REGIONAL TOTALS  | 0.66 | 0.71     | 0.76 | 1.12        | 1.07         | 0.88         | 0.74     | 0.76 |
| Central Region   | 0.00 |          |      | <u> </u>    |              | 0.00         |          | 0.70 |
| Juab             | 0.43 | 1.00     | 0.14 | 1.14        | 0.86         | 0.71         | 0.88     | 0.65 |
| Salt Lake        | 1.25 | 0.65     | 0.75 | 1.05        | 0.87         | 0.77         | 0.88     | 0.65 |
| Sanpete          | 0.99 | 0.72     | 0.67 | 1.12        | 0.84         | 0.65         | 0.82     | 0.98 |
| Tooele           | 0.40 | 1.00     | 0.89 | 1.12        | 1.33         | 1.75         | 1.03     | 1.03 |
| Utah             | 0.40 | 0.86     | 0.59 | 1.04        | 1.08         | 0.99         | 0.91     | 0.97 |
| Wasatch          | 0.84 | 0.59     | 0.59 | .94         | 0.74         | 0.78         | 0.91     | 0.97 |
| REGIONAL TOTALS  | 0.78 | 0.75     | 0.62 | 1.07        | 0.97         | 0.90         | 0.90     | 0.89 |
| Southern Region  | 0.70 | <u> </u> | 0.02 |             | . 0.97       | 0.90         | 0.90     | 0.03 |
| Beaver           | 1.05 | 0.59     | 1.00 | 0.91        | 1.31         | 0.86         | 0.85     | 0.95 |
| Garfield         | 0.67 | 0.59     | 0.27 | 0.57        | 1.00         | 1.27         | 0.85     | 0.95 |
| Iron             | 0.59 | 0.94     | 1.21 | 0.57        | 1.00         | 0.79         | 0.74     | 0.83 |
| Kane             | 0.59 | 0.78     | 0.14 | 2.33        |              |              |          |      |
|                  | 0.67 | 0.78     | 1.14 | 2.33        | 1.50<br>1.36 | 1.25<br>1.26 | 0.81     | 0.61 |
| Millard          |      |          |      |             |              |              | 1.49     |      |
| Piute            | 1.27 | 0.94     | 1.42 | 1.19        | 1.34         | 1.00         | 1.25     | 1.00 |
| Sevier           | 0.73 | 0.77     | 0.88 | 1.00        | 1.18         | 1.23         | 1.02     | 0.94 |
| Washington       | 0.00 | 2.14     | 2.01 | 0.17        | 0.10         | 0.00         | 0.00     | 1.83 |
| Wayne            | 0.34 | 1.09     | 0.33 | 0.90        | 0.25         | 0.76         | 0.86     | 0.59 |
| REGIONAL TOTALS  | 0.82 | 0.82     | 0.98 | 0.93        | 1.16         | 1.13         | 0.99     | 0.87 |
| Northeastern Reg |      |          |      |             | a            | <b>•</b> ••  |          |      |
| Daggett          | 0.47 | 0.94     | 1.19 | 1.10        | 0.65         | 0.42         | 0.81     | 0.97 |
| Duchesne         | 0.67 | 0.60     | 1.07 | 1.29        | 0.98         | 0.92         | 0.69     | 0.78 |
| Uintah           | 1.23 | 0.94     | 1.19 | 1.63        | 0.91         | 0.67         | 1.09     | 1.00 |
| REGIONAL TOTALS  | 0.96 | 0.83     | 1.16 | 1.43        | 0.88         | 0.69         | 0.93     | 0.93 |
| Southeastern Reg |      | <b>-</b> |      |             |              |              |          |      |
| Carbon           | 0.00 | 0.71     | 0.83 | 0.92        | 0.48         | 0.37         | 0.47     | 0.64 |
| Emery            | 0.90 | 0.35     | 0.65 | 0.96        | 1.06         | 0.60         | 0.81     | 0.78 |
| Grand            | 1.60 | 0.64     | 1.29 | 1.91        | 0.81         | 1.14         | 1.12     | 2.14 |
| San Juan         | 0.67 | 0.20     | 0.67 | 1.00        | 0.67         | 1.00         | 0.83     | 0.45 |
| REGIONAL TOTALS  | 0.86 | 0.52     | 0.81 | 1,14        | 0.79         | 0.57         | 0.69     | 0.77 |
| Unknown Counties | 1.00 | 1.00     | 0.00 | 0.55        | 0.70         | 0.76         | 0.00     | 0.00 |
| STATE TOTALS     | 0.75 | 0.74     | 0.79 | 1.09        | 1.04         | 0.90         | 0.83     | 0.82 |

Table 13. Summary of forest grouse bagged per hunter-day by region and county, 1984-91.

| Region and<br>County<br>Northern Region | 1984                                  | 1985         |        |        |        |        | _      |        |
|---|---------------------------------------|--------------|--------|--------|--------|--------|--------|--------|
|   |                                       | 1982         | 1986   | 1987   | 1988   | 1989   | 1990_  | 1991   |
| NOT CHETH VEGTON                        |                                       |              |        |        |        | ·      |        |        |
| Box Elder                               | 3.38                                  | 2.23         | 2.59   | 1.62   | 3.83   | 5.02   | 6.51   | 5.53   |
| Cache                                   | 15.72                                 | 17.35        | 21.23  | 14.98  | 21.10  | 15.18  | 15.47  | 17.45  |
| Davis                                   | 4.48                                  | 5.66         | 2.50   | 1.83   | 3.14   | 1.96   | 3.28   | 2.89   |
| Morgan                                  | 2.88                                  | 3.90         | 3.02   | 1.13   | 2.64   | 6.93   | 3.28   | 3.29   |
| Rich                                    | 3.78                                  | 4.26         | 2.24   | 4.05   | 4.55   | 2.60   | 2.89   | 3.74   |
| Summit                                  | 2.49                                  | 3.52         | 2.93   | 4.65   | 3.55   | 4.61   | 3.45   | 6.83   |
| Weber                                   | 7.86                                  | 4.91         | 10.44  | 6.65   | 9.53   | 10.35  | 8.07   | 5.03   |
| REGIONAL TOTALS                         | · · · · · · · · · · · · · · · · · · · | 41.85        | 44.96  | 34.93  | 48.37  | 46.65  | 42.96  | 44.77  |
| <u>Central Region</u>                   | 77.000                                | 41100        |        |        |        |        |        |        |
| Juab                                    | 1.19                                  | 1.02         | 0.26   | 1.29   | 1.12   | 1.32   | 0.78   | 0.75   |
| Salt Lake                               | 4.48                                  | 2.41         | 1.81   | 1.18   | 1.40   | 1.50   | 0.72   | 0.80   |
|   | 6.97                                  | 5.84         | 4.57   | 6.43   | 4.70   | 4.56   | 5.40   | 4.34   |
| Sanpete                                 |                                       |              |        | 3.94   | 4.17   | 5.02   | 6.68   | 4.04   |
| Tooele                                  | 1.00                                  | 2.87         | 4.74   |        |        |        |        |        |
| Utah                                    | 13.34                                 | 9.65         | 8.02   | 10.22  | 9.47   | 7.62   | 8.74   | 7.48   |
| Wasatch                                 | 2.58                                  | 5.01         | 3.02   | 3.94   | 3.05   | 5.47   | 2.89   | 4.44   |
| REGIONAL TOTALS                         |                                       | 26.80        | 22.43  | 27.04  | 23.94  | 25.49  | 25.21  | 21.83  |
| Southern Region                         |                                       | <sup>-</sup> |        |        |        |        |        |        |
| Beaver                                  | 2.09                                  | 2.13         | 0.86   | 1.56   | 0.65   | 0.82   | 1.61   | 2.59   |
| Garfield                                | 1.39                                  | 1.39         | 0.26   | 0.64   | 0.74   | 1.73   | 1.45   | 1.00   |
| Iron                                    | 1.59                                  | 2.87         | 3.53   | 1.40   | 1.77   | 1.41   | 1.39   | 1.94   |
| Kane                                    | 0.59                                  | 0.65         | 0.08   | 0.37   | 0.18   | 0.23   | 0.72   | 0.95   |
| Millard                                 | 0.70                                  | 0.65         | 3.45   | 1.13   | 1.77   | 3.51   | 2.89   | 2.24   |
| Piute                                   | 5.57                                  | 1.48         | 2.33   | 2.05   | 2.80   | 0.96   | 3.34   | 2.04   |
| Sevier                                  | 4.38                                  | 4.45         | 6.56   | 11.35  | 10.84  | 9.90   | 7.90   | 10.27  |
| Washington                              | 0.00                                  | 1.39         | 0.52   | 0.05   | 0.03   | 0.00   | 0.00   | 0.55   |
| Wayne                                   | 0.40                                  | 1.11         | 0.17   | 0.48   | 0.09   | 0.73   | 1.00   | 0.65   |
| REGIONAL TOTALS                         | 16.72                                 | 16.14        | 17.77  | 19.09  | 18.92  | 19.92  | 20.31  | 22.23  |
| <u>Northeastern Re</u>                  | gion                                  |              |        |        |        |        |        |        |
| Daggett                                 | 0.89                                  | 1.48         | 3.19   | 1.73   | 0.93   | 0.46   | 1.39   | 1.65   |
| Duchesne                                | 1.59                                  | 2.50         | 2.67   | 4.75   | 1.55   | 1.60   | 1.39   | 2.24   |
| Uintah                                  | 7.56                                  | 6.21         | 6.03   | 8.27   | 3.64   | 4.33   | 4.90   | 4.99   |
| REGIONAL TOTALS                         | 10.05                                 | 10.20        | 11.91  | 14.76  | 6.14   | 6.38   | 7.68   | 8.87   |
| Southeastern Re                         | gion                                  |              |        |        |        |        |        |        |
| Carbon                                  | 0.00                                  | 2.23         | 0.86   | 0.64   | 0.43   | 0.50   | 1.34   | 0.70   |
| Emery                                   | 1.79                                  | 1.11         | 0.95   | 1.29   | 1.15   | 0.41   | 1.17   | 0.35   |
| Grand                                   | 0.79                                  | 1.48         | 0.77   | 1.13   | 0.68   | 0.36   | 1.06   | 0.75   |
| San Juan                                | 0.40                                  | 0.18         | 0.34   | 0.43   | 0.12   | 0.18   | 0.28   | 0.50   |
| REGIONAL TOTALS                         |                                       | 5.01         | 2.93   | 3.51   | 2.40   | 1.46   | 3.84   | 2.29   |
| Unknown. Countie                        |                                       | 0.00         | 0.00   | 0.64   | 0.21   | 0.73   | 0.00   | 0.00   |
| STATE TOTALS                            | 100.00                                | 100.00       | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Table 14. Percentage distribution of forest grouse harvest by region and county, 1984-91.

| Region and            |         |            |        |              | Year         |              |        |          |
|-----------------------|---------|------------|--------|--------------|--------------|--------------|--------|----------|
| County                | 1984    | 1985       | 1986   | 1987         | 1988         | 1989         | 1990   | 1991     |
| Northern Region       |         |            |        |              |              |              |        |          |
| Box Elder             | 4.25    | 3.63       | 4.65   | 2.60         | 3.84         | 4.55         | 5.60   | 6.59     |
| Cache                 | 15.35   | 14.18      | 14.69  | 15.26        | 17.65        | 16.22        | 17.22  | 15.55    |
| Davis                 | 5.07    | 8.29       | 3.90   | 2.84         | 3.32         | 2.25         | 2.69   | 2.82     |
|                       | 4.91    | 3.29       | 3.15   | 1.24         | 2.77         | 5.08         | 2.92   | 2.86     |
| Morgan                | 3.28    | 4.18       | 4.05   | 2.84         | 5.13         | 5.53         | 4.63   | 4.95     |
| Rich                  |         | 3.70       | 4.50   | 4.08         | 4.26         | 4.63         | 5.83   | 7.73     |
| Summit                | 3.42    |            |        | 4.08<br>5.14 | 4.20<br>9.94 | 4.83<br>9.34 | 9.21   | 8.10     |
| Weber                 | 9.69    | 6.02       | 9.00   |              |              |              |        |          |
| REGIONAL TOTALS       | 45.97   | 43.29      | 43.93  | 34.02        | 46.93        | 47.60        | 48.10  | 48.61    |
| <u>Central Region</u> |         | - <u>-</u> |        |              |              |              |        | ·~ ~ ~   |
| Juab                  | 2.08    | 0.75       | 1.50   | 1.24         | 1.35         | 1.68         | 0.74   | 0.94     |
| Salt Lake             | 2.68    | 2.74       | 2.40   | 1.24         | 1.67         | 1.76         | 0.74   | 1.19     |
| Sanpete               | 5.29    | 5.96       | 4.65   | 6.27         | 5.77         | 6.31         | 5.51   | 3.64     |
| Tooele                | 1.86    | 2.12       | 3.90   | 3.49         | 3.26         | 2.58         | 5.42   | 3.23     |
| Utah                  | 11.84   | 8.29       | 10.49  | 10.76        | 9.10         | 6.88         | 8.01   | 6.34     |
| Wasatch               | 4.54    | 6.23       | 4.50   | 4.61         | 4.29         | 6.31         | 2.92   | 4.79     |
| REGIONAL TOTALS       |         | 26.09      | 27.44  | 27.63        | 25.46        | 25.52        | 23.33  | 20.13    |
| Southern Region       |         |            |        |              |              |              |        |          |
| Beaver                | 1.49    | 2.67       | 1.05   | 1.89         | 0.51         | 0.86         | 1.57   | 2.25     |
| Garfield              | 1.56    | 1.30       | 1.05   | 1.24         | 0.77         | 1.23         | 1.62   | 0.98     |
| Iron                  | 2.01    | 2.26       | 2.25   | 2.07         | 1.71         | 1.60         | 1.67   | 2.82     |
|                       | 0.67    | 0.61       | 0.75   | 0.17         | 0.12         | 0.16         | 0.74   | 1.27     |
| Kane                  |         | 0.96       | 1.35   | 1.65         | 1.35         | 2.50         | 1.62   | 1.88     |
| Millard               | 0.82    |            |        |              |              | 0.86         | 2.22   | 1.68     |
| Piute                 | 3.28    | 1.16       | 1.20   | 1.89         |              |              |        |          |
| Sevier                | 4.47    | 4.24       | 6.30   | 12.48        | 9.52         | 7.21         | 6.44   | 8.92     |
| Washington            | 0.00    | 0.48       | 0.30   | 0.35         | 0.32         | 0.08         | 0.23   | 0.25     |
| Wayne                 | 0.89    | 0.75       | 0.75   | 0.59         | 0.38         | 0.86         | 0.97   | 0.90     |
| REGIONAL TOTALS       | 15.20   | 14.45      | 15.00  | 22.36        | 16.88        | 15.36        | 17,08  | 20.95    |
| Northeastern Re       | gion    |            |        |              |              |              |        |          |
| Daggett               | 1.41    | 1.16       | 2.10   | 1.71         | 1.48         | 0.98         | 1.44   | 1.39     |
| Duchesne              | 1.79    | 3.08       | 3.45   | 4.02         | 1.64         | 1.56         | 1.67   | 2.37     |
| Uintah                | 4.62    | 4.86       | 4.35   | 5.56         | 4.13         | 5.82         | 3.75   | 4.09     |
| REGIONAL TOTALS       | 7,82    | 9.10       | 9.90   | 11.30        | 7.26         | 8.36         | 6.85   | 7.86     |
| Southeastern Re       |         |            |        |              |              |              |        |          |
| Carbon                | 0.30    | 2.33       | 0.45   | 0.76         | 0.93         | 1.23         | 2.36   | 0.90     |
| Emery                 | 1.49    | 2.33       | 1.80   | 1.47         | 1.12         | 0.61         | 1.20   | 0.37     |
| Grand                 | 0.37    | 1.71       | 0.75   | 0.65         | 0.87         | 0.29         | 0.79   | 0.29     |
| San Juan              | 0.44    | 0.68       | 0.75   | 0.47         | 0.19         | 0.16         | 0.28   | 0.90     |
|                       |         | 7.05       | 3.75   | 3.37         | 3.12         | 2,29         | 4.63   | 2.45     |
| REGIONAL TOTALS       | 2.01    | /.05       | 3.75   | 16.5         |              | <u> </u>     |        | <u> </u> |
| Unknown Countie       | es 0.07 | 0.00       | 0.00   | 1.30         | 0.32         | 0.86         | 0.00   | 0.00     |
| STATE TOTALS          | 100.00  | 100.00     | 100.00 | 100.00       | 100.00       | 100.00       | 100.00 | 100.00   |

Table 15. Percentage distribution of forest grouse hunting pressure by region and county, 1984-91.

| Table 16. Statewide summary of forest grouse harvest statistics, 1963-91 | atewide sum | nary of for | rest grouse  | harvest st           | atistics, 15 | 63-91.  |         |           |             |        |                   |          |               |        |       |
|--|-------------|-------------|--------------|----------------------|--------------|---------|---------|-----------|-------------|--------|-------------------|----------|---------------|--------|-------|
|  | Total       |             |              | <b>Total Harvest</b> | vest         |         |         |           | Hunter-Days | Crouse | Grouse/Hunter-Pay | RV<br>AV | Crouse/Hunter | HUDGEL |       |
| Year   | Hunters     | Ruffed      | Percent      | Blue                 | Percent      | Unknown | Percent | Total     | Afield      | Ruffed | Blue              | Total    | Ruffed        | Blue   | Total |
| 1963   | 7.425       | 5.470       | 40.20        | 7.372                |              | 766     | 5.63    | 13,608    | 12,313      | 0.44   | 0.66              | 1.11     | 0.74          | 66.0   | 1.83  |
| 1964   | 6.487       | 5.354       | 42.19        | 6.685                | 52.68        | 652     | 5.14    | 12,691    | 10,566      | 0.51   | 0.63              | 1.20     | 0.82          | 1.03   | J.96  |
| 1965   | 6,005       | 3.25        | 37.20        | 4,924                | 56.80        | 520     | 6.00    | 8,669     | 10,504      | 0.31   | 0.47              | 0.83     | 0.54          | 0.82   | 1.44  |
| 1966   | 6.683       | 6.966       | 56.54        | 4,659                | 37.81        | 696     | 5.65    | 12,321    | 12,387      | 0.56   | 0.38              | 0.99     | 1.04          | 0.68   | 1.84  |
| 1967   | 9.420       | 8.476       | 48.36        | 6.773                | 38.65        | 2,277   | 12.99   | 17,526    | 17,773      | 0.48   | 0.38              | 66.0     | 0.87          | 0.69   | 1.86  |
| 1968   | 13.061      | 17.048      | <b>52.59</b> | 12,604               | 38.88        | 2,762   | 8.52    | 32,414    | 26,537      | 0.64   | 0.47              | 1.22     | 1.30          | 0.96   | 2.48  |
| 1969   | 12.523      | 9.490       | 44.14        | 10.419               | 48.46        | 1,589   | 7.39    | 21,498    | 24.572      | 0.38   | 0.42              | 0.87     | 0.76          | 0.83   | 1.72  |
| 1970   | 12.775      | 15.590      | 48.87        | 13,515               | 42.37        | 2,793   | 8.76    | 31,898    | 26,619      | 0.59   | 0.51              | 1.20     | 1.22          | 1.06   | 2.50  |
| 171  | 13.363      | 15.759      | 49.40        | 13,749               | 43.10        | 2,393   | 7.50    | 31,901    | 29,100      | 0.54   | 0.47              | 1.10     | 1.18          | 1.03   | 2.39  |
| 1972   | 16.640      | 20.648      | 48.56        | 19,221               | 45.21        | 2,649   | 6.23    | 42,518    | 38,940      | 0.53   | 0.49              | 1.09     | 1.24          | 1.16   | 2.56  |
| 1973   | 17.588      | 7.153       | 15.81        | 36.846               | 81.46        | 1,233   | 2.73    | 45,232    | 44,738      | 0.16   | 0.82              | 1.01     | 0.41          | 2.09   | 2.57  |
| 1974   | 21.920      | 24.561      | 39.34        | 32,236               | 51.63        | 5,642   | 9.04    | 62,439    | 55,258      | 0.44   | 0.58              | 1.13     | 1.12          | 1.47   | 2.85  |
| 1975   | 20.102      | 15.750      | 37.09        | 23,138               | 54.49        | 3,573   | 8.41    | 42,461    | 50,579      | 0.31   | 0.45              | 0.84     | 0.78          | 1.15   | 2.11  |
| 1976   | 21.186      | 23.551      | 37.13        | 35.660               | 56.21        | 4,225   | 6.66    | 63,436    | 56,422      | 0.42   | 0.63              | 1.12     | 1.11          | 1.68   | 2.99  |
| 1977   | 19.188      | 15.766      | 37.12        | 23,455               | 55.22        | 3,256   | 7.67    | 42,477    | 48,746      | 0.37   | 0.48              | 0.87     | 0.82          | 1.12   | 2.21  |
| 1978   | 25,318      | 30,340      | 37.20        | 46,651               | 57.20        | 4,567   | 5.60    | 81,558    | 72,732      | 0.42   | 0.64              | 1.12     | 1.20          | 1.84   | 3.22  |
| 1979   | 21.993      | 23.156      | 38.69        | 33.070               | 55.25        | 3,625   | 6.06    | 59,851    | 57,404      | 0.40   | 9.58              | 1.04     | 1.05          | 1.50   | 2.61  |
| 1980   | 19.511      | 15.457      | 33.96        | 27,588               | 60.60        | 2,477   | 5.44    | 45,522    | 49,899      | 0.31   | 0.55              | 16.0     | 0.79          | 1.41   | 2.33  |
| 1981   | 14.329      | 8.557       | 30.68        | 17,852               | 64.00        | 1,485   | 5.32    | 27,894    | 34,305      | 0.25   | 0.52              | 0.81     | 0.60          | 1.25   | 1.95  |
| 1982   | 12,384      | 7.509       | 34,48        | 12,138               | 55.74        | 2,131   | 9.79    | 21,778    | 28,767      | 0.26   | 0.42              | 0.76     | 0.60          | 0.98   | 1.76  |
| 1983   | 13.414      | 11.366      | 37.78        | 16,955               | 56.35        | 1,767   | 5.87    | 30,088    | 34,530      | 0.33   | 0.49              | 0.87     | 0.84          | 1.26   | 2.24  |
| 1984   | 11.511      | 6.780       | 33.24        | 12,647               | 62.01        | 969     | 4.75    | 20,396    | 27,244      | 0.25   | 0.46              | 0.75     | 0.59          | 1.10   | 1.77  |
| 1985   | 12.646      | 8.701       | 37.67        | 13,416               | 58.09        | 086     | 4.24    | 23,097    | 31,290      | 0.28   | 0.43              | 0.74     | 0.69          | 1.06   | 1.83  |
| 1986   | 12,117      | 8,819       | 36.95        | 14,156               | 16.92        | 894     | 3.75    | 23,869    | 30,312      | 0.29   | 0.47              | 0.79     | 0.73          | 1.17   | 1.97  |
| 1987   | 14,831      | 15,811      | 34.88        | 28,068               | 61.92        | 1,447   | 3.19    | 45,326    | 41,428      | 0.38   | 0.68              | 1.09     | 1.07          | 1.89   | 3.06  |
| 1988   | 16.947      | 19.100      | 35.66        | 31,556               | 58.91        | 2,906   | 5.43    | 53,562    | 51,726      | 0.37   | 0.61              | 1.04     | 1.13          | 1.86   | 3.16  |
| 1989   | 16.987      | 16.323      | 35.88        | 27,794               | 61.10        | 1,370   | 3.01    | 45,487    | 50,631      | 0.32   | 0.55              | 06.0     | 0.96          | 1.64   | 2.68  |
| 1990   | 14.591      | 11.010      | 28.29        |                      | 67.10        | 1,797   | 4.62    | 38,922    | 44,452      | 0.25   | 0.59              | 0.83     | 0.75          | 1.79   | 2.53  |
| 1661   | 14,421      | 12,073      | 34.60        | 21,310               | 61.07        | 1,514   | 4.34    | 34,897    | 42,517      | 0.35   | 0.50              | 0.82     | 0.84          | 1.48   | 2.42  |
| Totals   |             |             |              |                      |              |         |         |           |             |        |                   |          |               |        |       |
| (1963-91)  | 425,366     | 389,809     | ;            | 580,572              | 1            | 62,955  | 1       | 1,033,336 | 1,062,291   | 1      | 1                 | •        | 1             | ı      | ,     |
| Averages   |             |             |              |                      |              |         |         |           |             |        |                   |          |               | 2      |       |
| (1963-90)  | 14,677      | 13,491      | 38.92        | 19.974               | 54.81        | 2,194   | 6.26    | 35,659    | 36,421      | 0.39   | 0.53              | 0.97     | 0.89          | 1.27   | 05.2  |
|  |             |             |              |                      |              |         |         |           |             |        |                   |          |               |        |       |

|      | 1 0 (3  | Total   | Totai   |         |              |              | 1             |      |            |            |
|------|---------|---------|---------|---------|--------------|--------------|---------------|------|------------|------------|
|      | Ruffed  | Blue    | Forest  | Total   | Total        |              |               |      | Aggregate  | gate -     |
|      | Grouse  | Grouse  | Grouse  | Hunters | llunter Days |              | Season Length |      | Bag Limits | imits      |
| Year | Harvest | Harvest | Harvest | Afield  | Afield       | Open         | Close         | Days | Daily      | Possession |
| 1963 | 5,470   | 7,372   | 13,608  | 7,425   | 12,313       | e.           | e.            | **6  | 4          | œ          |
| 1964 | 5,354   | 6,685   | 12,691  | 6,487   | 10,566       | 9/26         | 10/16         | 21   | 4          | 00         |
| 1965 | 3,225   | 4,924   | 8,669   | 6,005   | 105,074      | 9125         | 10/22         | 28   | 4          | *          |
| 1966 | 6,966   | 4,659   | 12,321  | 6,683   | 12,387       | 9/24         | 10/21         | 28   | 4          | 80         |
| 1967 | 8,476   | 6,773   | 17,526  | 9,420   | 17,773       | 9/23         | 10/31         | 39   | 4          | 60         |
| 1968 | 17,048  | 12,604  | 32,414  | 13,061  | 26,537       | 9/28         | 10/29         | 32   | 4          | <b>cc</b>  |
| 1969 | 9,490   | 10,419  | 21,498  | 12,523  | 24,572       | 9127         | 11/02         | 37   | 4          | œ          |
| 0261 | 15,590  | 13,515  | 31,898  | 12,775  | 26,619       | 9/26         | 11/06         | 42   | 4          | œ          |
| 1971 | 15,759  | 13,749  | 31,901  | 13,363  | 29,100       | 9/25         | 11/30         | 67   | 4          | œ          |
| 1972 | 20,648  | 19,221  | 42,518  | 16,640  | 38,940       | 6216         | 11/30         | 69   | 4          | œ          |
| 1973 | 7,153   | 36,846  | 45,232  | 17,588  | 44,738       | 9/22         | 11/30         | 70   | 4          | œ          |
| 1974 | 24,561  | 32,236  | 62,439  | 21,920  | 55,258       | 9/28         | 11/30         | 64   | 4          | æ          |
| 1975 | 15,750  | 23,138  | 42,461  | 20,102  | 50,579       | 9/20         | 11/30         | 72   | 4          | 80         |
| 1976 | 23,551  | 35,660  | 63,436  | 21,186  | 56,422       | 9/18         | 11/30         | 74   | 4          | <b>œ</b>   |
| 1977 | 15,766  | 23,455  | 42,477  | 19,188  | 48,746       | 9/17         | 11/30         | 75   | 4          | œ          |
| 1978 | 30,340  | 46,651  | 81,558  | 25,318  | 72,732       | 9/16         | 11/30         | 76   | 4          | <b>ec</b>  |
| 1979 | 23,156  | 33,070  | 59,851  | 21,993  | 57,404       | 9/15         | 11/30         | 11   | 4          | 90         |
| 1980 | 15,457  | 27,588  | 45,522  | 112,01  | 49,899       | 9/20         | 11/30         | 12   | 4          | œ          |
| 1981 | 8,557   | 17,852  | 27,894  | 14,329  | 34,305       | 61/6         | 11/30         | 52   | 4          | 80         |
| 1982 | 7,509   | 12,138  | 21,778  | 12,384  | 28,767       | 9/18         | 06/11         | 74   | 4          | 90         |
| 1983 | 11,366  | 16,955  | 30,088  | 13,414  | 34,530       | 9/17         | 11/30         | 75   | 4          | 00         |
| 1984 | 6,780   | 12,647  | 20,396  | 11,511  | 27,244       | 9/15         | 11/30         | 7    | 4          | œ          |
| 1985 | 8,701   | 13,416  | 23,097  | 12,646  | 31,290       | 9/14*        | 11/30         | 78   | 4          | ÷          |
| 1986 | 8,819   | 14,156  | 23,869  | 12,117  | 30,312       | 9/1 <b>3</b> | 11/30         | 79   | 4          | œ          |
| 1987 | 15,811  | 28,068  | 45,326  | 14,831  | 41,428       | 9/12         | 11/30         | 80   | 4          | œ          |
| 1988 | 19,100  | 31,556  | 53,562  | 16,947  | 51,726       | 11/6         | 11/30         | 82   | 4          | . œ        |
| 1989 | 16,323  | 27,794  | 45,487  | 16,987  | 50,631       | 60/6         | 11/30         | 82   | 4          | œ          |
| 1990 | 11,010  | 26,115  | 38,922  | 14,591  | 44,452       | 80/6         | 11/30         | 82   | 4          | œ          |
| 1991 | 12,073  | 21,310  | 34,897  | 14,421  | 42,517       | 9/14         | 11/30         | 77   | 4          | 80         |

125

In 1964, the entire state was opened to hunting without a stamp.

| 1991.        |
|--------------|
| summary.     |
| bag check    |
| grouse field |
| Forest g     |
| Table 18.    |
|              |

|                        |         | ALL BUNIS |       |            |         |          | -       | CUWITLE | CUMITERIE RUNIS | •      |        |
|------------------------|---------|-----------|-------|------------|---------|----------|---------|---------|-----------------|--------|--------|
| Region and             | Total   | Total     | Total | Total      | Birds/  | Complete | Total   | Total   | Total           | Birds/ | Birds/ |
| County                 | Parties | Hunters   | Hours | Birds      | 100 Hr  | Hunts    | Hunters | Hours   | Birds           | 100 Hr | Hunter |
| Northern Region        |         |           |       |            |         |          |         |         |                 |        |        |
| Box Elder              | 77      | 56        | 69    | 39         | ES .    | ı        | 69      | 335     | 8               | æ      | 1.43   |
| Cache                  | 11      | 50        | 28    | 16         | 21<br>S | ı        | 191     | 1       | 44              | 1      | 0.23   |
| Davis                  | :       | :         | 1     | 1          | 1       | 1        | ł       | :       | :               | 1      | I      |
| Morgan                 | 1       | ı         | 1     | 1          | I       | I        | :       | ;       | ı               | 1      | ı      |
| Rich                   | 1       | 1         | 1     | 1          | I       | 1        | :       | 1       | ł               | 1      | ı      |
| Suramit                | 1       | 1         | :     | ;          | 1       | ł        | :       | I       | ł               | I      | 1      |
| Wahar                  | i       |           |       | 1          |         | 1        | 131     | I       | 42              | I      | 0.32   |
|                        | 1       | :         |       | :          |         |          |         |         |                 |        |        |
| KEXTONAL TOTALS        | £       | 106       | 74    | 22         | 57      | :        | 166     | S       | 2               | 8      | 14.0   |
| contact the product of |         |           |       |            |         |          |         | ·       |                 |        |        |
| juan.                  | ł       | ı         | ;     | 1          | I       | 1        | 1       | I       | 1               | 1      | I      |
| Salt Lake              | I       | 1         | 1     | 1          | I       | 1        | 1       | I       | ł               | ł      | ı      |
| Sanpete                | 1       | :         | 1     | 1          | I       | I        | I       | ł       | 1               | ı      | I      |
| Tnoele                 | :       | :         | I     | 1          | 1       | 1        | 27      | 75      | 9               | -      | 0.22   |
| Utah                   | ı       | I         | ł     | I          | 1       | 1        | 91      | 332     | 37              | Π      | 0.41   |
| Wasatch                | ı       | :         | 1     | :          | 1       | 1        | ı       | ł       | 1               | 1      | ł      |
| REGIONAL TOTALS        | 1       |           |       | 1          | :       |          | 118     | 407     | 43              | H      | 0.36   |
| Southern Region        |         |           |       |            |         |          |         |         |                 |        |        |
| Beaver                 | ł       | I         | 1     | :          | I       | :        | ı       | :       | 1               | I      | I      |
| Garfield               | ł       | ı         | ı     | ł          | I       | 1        | 1       | ł       | ł               | 1      | I      |
| Iron                   | 1       | I         | I     | ł          | 1       | I        | 1       | 1       | ł               | I      | I      |
| Kane                   | I       | I         | 1     | :          | I       | 1        | I       | ;       | ł               | ł      | I      |
| Millard                | I       | ł         | ł     | ł          | ı       | I        | 1       | ł       | 1               | I      | ł      |
| Pinte                  | I       | ı         | I     | ł          | I       | I        | 1       | ł       | 1               | I      | I      |
| Sevier                 | I       | ł         | ı     | 1          | I       | t        | :       | I       | 1               | 1      | I      |
| Washington             | 1       | ı         | t     | I          | ŀ       | I        | 1       | 1       | :               | ł      | I      |
| Wayne                  | 1       | 1         | I     | 1          | 1       | 1        | ł       | ł       | 1               | I      | 1      |
| REGIONAL TOTALS        | 1       | 1         |       | 1          | 1       | 1        | 1       | •       | 1               | 1      | 1      |
| Northeastern Region    |         |           |       |            |         |          |         |         |                 |        |        |
| Daggett                | •       | 6         |       | <b>3</b> 0 | \$      | •        | 6       | \$      | 30              |        | 1.11   |
| Duchesne               | 6       | 9         | 24    | 7          | œ       | 1        | 1       | ;       | 1               | 1      | I      |
| Uintah                 | 5       | m         | 0     | 9          | 111     | 3        | 3       | 9 -     | 10              | 111    | 3.33   |
| REGIONAL TOTALS        | 8       | 18        | 79    | 20         | 25      | 9        | 12      | 55      | 30              | 53     | 2.50   |
| Southeastern Region    |         |           |       |            |         |          |         |         |                 |        |        |
| Carbon                 | ł       | I         | ı     | 1          | ł       | 1        | ł       | ı       | 1               | t      | :      |
| Emery                  | I       | 1         | ı     | ł          | t       | ł        | ł       | 1       | 1               | 1      | :      |
| Grand                  | 1       | 1         | I     | ł          | 1       | 1        | 1       | ł       | :               | 1      | ł      |
| San Juan               | I       | 1         | 1     | 1          | 1       | 1        | 1       | 1       | ı               | t      | 1      |
| REGIONAL TOTALS        | 1       | I         | :     | :          | Ł       | 1        | ;       | 1       | 1               | :      | 1      |
|                        |         |           |       |            |         |          |         |         |                 |        |        |

|                        | 0041   |              | 1961       |        | OUX T      |        | 707         |         | 0.6AT    |         |            |        |
|------------------------|--------|--------------|------------|--------|------------|--------|-------------|---------|----------|---------|------------|--------|
| Retion and             | Birds/ | Birds/       | Birds/     | Birds/ | Birds/     | Birds/ | Birds/      | Birds/  | Birds/   | Birds/  | Birds/     | Rinds/ |
| County                 | 100 Hr | Ilunter      | 100 Hr     | Hunter | 100 Itr    | Hunter | Hanter      | 100 IIr | Hunter   | 100 IIr | Hunter     | 100 Hr |
| Northern Region        |        |              |            |        |            |        |             |         |          |         |            |        |
| Box Elder              | 35     | 1.42         | 39         | 3.50   | <b>2</b> 9 | 2.83   | 4           | 2.60    | 300      | 2.00    | <b>9</b> 8 | 1.43   |
| Cache                  | 15     | 0.57         | 17         | 0.74   | 78         | 1.15   | <b>. 00</b> | 0.63    | ł        | 1       | 1          | 0.23   |
| Davis                  | 1      | 0.0          | 16         | 0.56   | 16         | 0.50   | 40          | 0.50    | 1        | 1       | ł          | ł      |
| Morgan                 | ł      | 1            | I          | ł      | I          | I      | ł           | :       | 1        | ı       | I          | 1      |
| Rich                   | 9      | 0.20         | 9          | 0.44   | . 14       | 0.52   | Ţ           | 0.32    | ļ        | ł       | ī          | ł      |
| Summit                 | 200    | 2.00         | 1          | 1      | ı          | 1      | ı           | I       | 1        | ı       | - 1        | :      |
| Weber                  | 10     | 0.38         | 29         | 0.93   | 20         | 0.56   | 61          | 0.53    | 33       | 1.33    | 1          | 0.32   |
| REGIONAL TOTALS        | 14     | 0.50         | 16         | 0.71   | 23         | 0.88   | 14          | 0.62    | 51       | 1.60    | 55         | 0.47   |
| Central Region         | r      |              |            |        |            |        |             |         |          |         |            |        |
| Juab                   | ł      | ;            | ł          | 1      | 108        | 3.25   | 56          | 2.30    | I        | 1       | ł          | ł      |
| Salt Lake              | 1      | ;            | ;          | ł      | :          | ł      | Ī           | 1       | ł        | 1       | 1          | ł      |
| Sanpete                | I      | 1            | ;          |        | ł          | :      | 33          | 0.86    | 1        | ı       | I          | ł      |
| Tooele                 | 1      | ł            | 13         | 0.51   | 133        | 3.00   | 29          | 2.00    | 47       | 1.60    | œ          | 0.22   |
| Utah                   | 10     | <b>6E.</b> 0 | ı          | ı      | 20         | 0.86   | 39          | 1.90    | 31       | 0.97    | Π          | 0.41   |
| Wasatch                | I      | ł            | 1          | ł      | I          | I      | ı           | 1       | ł        | I       | ;          | ı      |
| REGIONAL TOTALS        | 10     | 0.39         | 13         | 0.51   | 26         | 1.07   | 33.         | 1.41    | 33       | 1.04    | Ξ          | 0.36   |
| Southern Region        |        |              |            |        |            |        |             |         |          |         |            |        |
| Beaver                 |        |              |            |        |            |        |             |         |          |         | I          | 1      |
| Garfield               | 72     | 1.00         | 1          | 1      | ı          | ı      | 550         | 2.75    | ı        | ı       | 1          | ł      |
| Iron                   | I      | ;            | :          | ł      | 200        | 3.75   | I           | 2.25    | ł        | 1       | ł          | 1      |
| Kane                   | I      | ı            | :          | I      | I          | ł      | I           | I       | ı        | 1       | 1          | I      |
| Millard                | 16     | 0.60         | 8          | 2.00   | 150        | 3.00   | I           | ł       | ;        | 1       | I          | I      |
| Pinte                  | 1      | 1            | I          | ł      | :          | ł      | 1           | 1       | ı        | ı       | I          | 1      |
| Sevier                 | 1      | 1            | 1          | 1      | 500        | 4.00   | 1           | 1       | I        | I       | I          | 1      |
| Washington             | I      | ł            | 1          | ł      | 1          | ł      | 1           | 1       | ł        | J.      | 1          | I      |
| Wayne                  | 1      | :            | 1          | ł      | 1          | +      | 1           | 1       | I        | ;       | ı          | ı      |
| <b>REGIONAL TOTALS</b> | 17     | 0.63         | 82         | 2.00   | 190        | 3.64   | 1,000       | 2.50    | 1        | I       | 1          | 1      |
| Northeastern Region    |        |              |            |        |            |        |             |         |          |         |            |        |
| Daggett                | ı      | ł            | - <b>8</b> | 1.20   | 38         | 1.50   | 32          | 0.85    | <b>6</b> | 09.0    | 43         | 2.22   |
| Duchesne               | 16     | 0.55         | 33         | 1.00   | ł          | :      | ı           | ı       | :        | 1       | ł          | :      |
| Uintah                 | 12     | 0.43         | 53         | 1.46   | 24         | 0.47   | 7           | 0.32    | 60       | 1.95    | 111        | 3.33   |
| REGIONAL TOTALS        | 13     | 0.45         | 50         | 1.37   | 26         | 0.52   | 6           | 0.40    | 30       | 1.34    | 55         | 2.50   |
| Southeastern Region    |        |              |            |        |            |        |             |         |          |         |            |        |
| Carbon                 | ı      | I            | I          | :      | I          | :      | 32          | 1.20    | I        | :       | I          | 1      |
| Emery                  | 333    | 2.50         | 1          | :      | 1          | 1      | 1           | 1       | 1        | I       | I          | ł      |
| Grand                  | 50     | 0:50         | :          | ;      | ı          | :      | 1           | ı       | ł        | t       | ı          | I      |
| San Juan               | 33     | 1.00         | t          | 1      | 1          | :      | ł           | I       | I        | 1       | 1          | 1      |
| REGIONAL TOTALS        | - 54   | 1.40         | :          | :      | 1          | 1      | 32          | 1.20    | 1        | 1       | 1          | 1      |
|                        |        |              |            |        |            |        |             |         |          |         |            |        |

| Region and               | Sample  |           | Adults |               |    | Young |         | Young/     | Young/   |
|--------------------------|---------|-----------|--------|---------------|----|-------|---------|------------|----------|
| County                   | Size    | М         | F      | Total         | M  | F     | Total   | 100 Adults | 100 Hens |
| Northern Region          |         |           | ·····  | •••           |    |       |         |            |          |
| Box Elder                |         |           |        |               |    |       |         |            |          |
| Cache                    |         |           |        |               |    |       |         |            |          |
| Davis                    |         | <b></b> ` |        |               |    |       |         |            |          |
| Morgan                   |         |           |        |               |    |       |         |            |          |
| Rich                     | **      |           |        |               | •• |       |         | ==         |          |
| Summit                   |         |           |        |               |    |       |         |            |          |
| Weber                    |         |           |        |               |    |       |         |            |          |
| <b>REGIONAL TOTALS**</b> | 95      | **        |        |               | ** | 87    |         | 91         | 176      |
| Central Region           |         |           |        |               |    | •     |         |            |          |
| Juab                     | <b></b> |           |        |               |    | ••    | -       |            | -        |
| Salt Lake                |         |           |        | <del></del> . | -  |       | -       |            | -        |
| Sanpete                  |         |           |        |               |    |       | -       |            |          |
| Tooele                   | 5       | 0         | 3      | 3             | 1  | 1     | . 2     | 67         | 67       |
| Utah                     | 58      | 11        | 17     | 28            | 12 | 18    | 30      | 107        | 176      |
| Wasatch                  |         |           |        |               | _  |       |         |            |          |
| <b>REGIONAL TOTALS</b>   | 63      | 11        | 20     | 31            | 13 | 19    | 32      | 103        | 160      |
| Southern Region          |         |           |        |               |    |       |         |            |          |
| Beaver                   |         |           |        |               |    |       |         |            |          |
| Garfield                 |         |           | ••     |               |    |       |         | . ••       |          |
| Iron                     |         |           |        |               | _  |       |         |            | _        |
| Kane                     |         |           |        |               |    |       |         |            |          |
| Millard                  |         |           |        |               |    |       | '       |            |          |
| Piute                    |         |           |        |               |    |       |         |            |          |
| Sevier                   |         |           |        |               |    |       |         |            |          |
| Washington               |         |           |        | ••            |    |       |         |            |          |
| Wayne                    |         | ••        |        |               |    |       | <b></b> |            | ••       |
| REGIONAL TOTALS          |         |           |        | -             |    |       | ••      | ·          | **       |
| Northeastern Region      |         |           |        |               |    |       |         |            |          |
| Daggett                  |         |           |        |               |    |       |         | ·          |          |
| Duchesne                 |         | · ==      |        |               | -  |       |         |            |          |
| Uintah                   |         |           |        | -             |    |       | **      |            | **       |
| REGIONAL TOTALS          |         |           |        |               |    | -     |         |            |          |
| Southeastern Region      |         |           |        | -             |    |       |         |            | -        |
| Carbon                   |         |           |        | ••            | -  |       |         |            |          |
| Emery                    |         |           |        |               | -  |       |         |            |          |
| Grand                    |         | ••        |        |               | _  |       |         |            |          |
| San Juan                 |         | ••        |        | ••            |    |       |         |            |          |
| REGIONAL TOTALS          |         |           |        |               |    |       |         |            |          |
| STATE TOTALS             | 158     | 11        | 20     | 31            | 13 | 19    | 32      | 103        | 160      |

\*\* Includes portions of Box Elder, Cache, Rich and Weber Counties.

| Region and               | Sample_ |   | Adults  |           |    | Young |           | Young/     | Young/    |
|--------------------------|---------|---|---------|-----------|----|-------|-----------|------------|-----------|
| County                   | Size    | М | F       | Total     | M  | F     | Total     | 100 Adults | 100 Hens  |
| Northern Region          |         |   |         |           |    |       |           | ,          |           |
| Box Elder                | · •-    |   |         |           |    |       |           |            |           |
| Cache                    |         |   |         |           |    |       |           |            | <b></b> ' |
| Davis                    |         |   |         |           |    |       |           |            |           |
| Morgan                   |         |   |         |           |    |       |           |            | <u> </u>  |
| Rich                     |         |   | •       |           |    | +-    |           | **         |           |
| Summit                   |         |   |         | ••        |    |       |           |            | ••        |
| Weber                    | ••      |   |         |           |    |       |           |            |           |
| <b>REGIONAL TOTALS**</b> | 25      |   |         |           |    | . ==  |           | 257        |           |
| Central Region           |         |   |         |           |    |       |           |            |           |
| Juab                     |         |   |         |           |    |       | -         |            |           |
| Salt Lake                |         |   | ·       |           |    |       |           |            |           |
| Sanpete                  |         |   |         |           | +- |       |           |            |           |
| Tooele                   |         |   |         |           |    |       |           |            |           |
| Utah                     | 5       |   |         | 2         |    |       | 3         | 150        |           |
| Wasatch                  |         |   |         |           |    |       |           |            |           |
| REGIONAL TOTALS          | 5       |   |         | 2         |    |       | 3         | 150        |           |
| Southern Region          |         |   |         |           |    |       |           |            |           |
| Beaver                   |         |   | ,       |           | •- | -     | •         |            |           |
| Garfield                 |         |   | •       |           |    |       |           |            |           |
| Iron                     |         |   | <b></b> |           |    |       |           |            |           |
| Kane                     |         |   |         |           |    |       |           |            |           |
| Millard                  |         |   |         |           |    |       |           |            |           |
| Piute                    |         |   |         |           |    |       | **        | ·          | ·         |
| Sevier                   |         |   |         |           |    |       |           |            | **        |
| Washington               |         |   |         |           | •  |       |           |            |           |
| Wayne                    |         |   |         |           |    |       |           |            |           |
| REGIONAL TOTALS          |         |   |         |           |    |       |           | · •        |           |
| Northeastern Region      |         |   |         |           |    |       |           |            |           |
| Daggett                  |         |   |         |           |    |       |           |            |           |
| Duchesne                 |         |   |         |           | ·  |       |           |            |           |
| Uintah                   | *       |   |         |           |    |       |           | <b>*-</b>  |           |
| REGIONAL TOTALS          |         |   |         |           |    |       |           |            | <b></b>   |
| Southeastern Region      |         |   |         |           |    |       |           |            |           |
| Carbon                   |         |   |         |           |    |       |           |            |           |
| Emery                    |         |   |         | ••        |    | ••    |           |            |           |
| Grand                    |         |   |         |           |    |       | <b></b> ' |            |           |
| San Juan                 |         |   |         | <b></b> , |    |       |           |            |           |
| REGIONAL TOTALS          |         |   | •-      |           |    |       |           |            | •*        |
| STATE TOTALS             | 30      |   |         | 2         |    | **    | 3         | 150        |           |

\*\* Includes portions of Box Elder, Cache, Rich and Weber Counties.



# SUMMARY

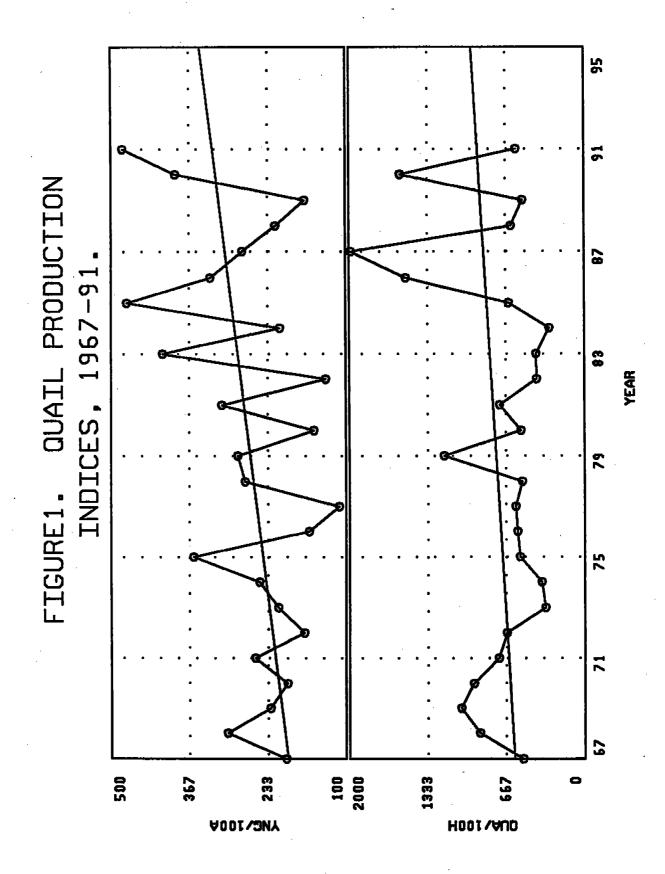
Production of Gambel's quail increased from 1990, and was above average. Production statewide increased in 1991 and was above average.

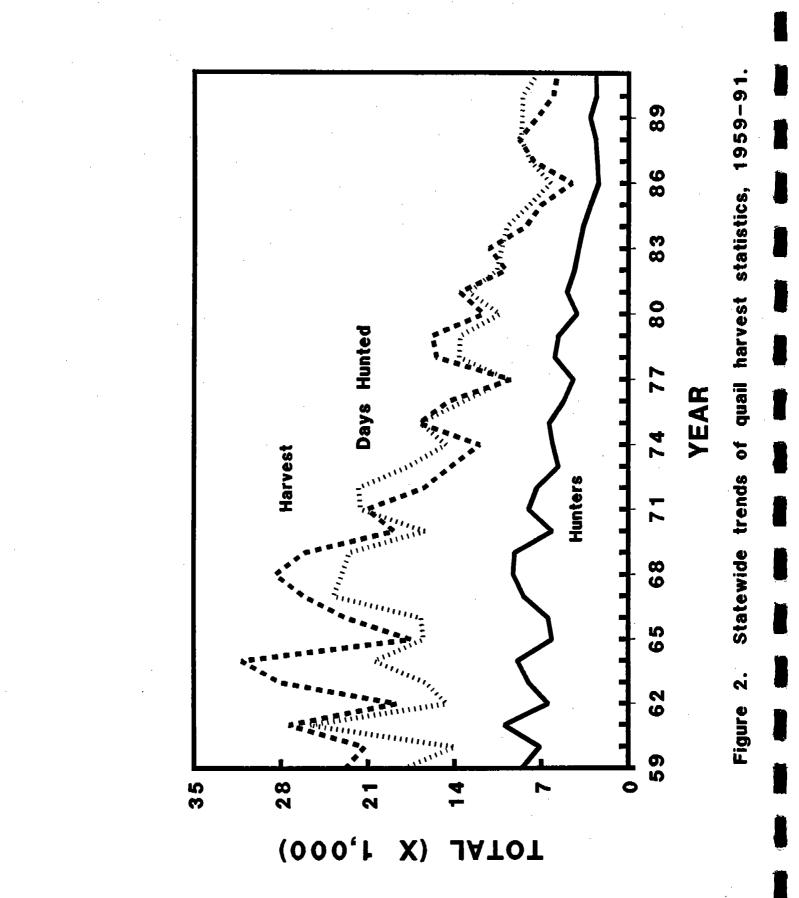
Statewide harvest statistics, when compared to 1990, showed an increase in total hunters and a decline in total harvest. Hunter success (birds per hunter-day) increased 10 percent and remained below average statewide. Hunter days afield decreased 14 percent from 1990. Total harvest of Gambel's quail reported in Washington County increased significantly.

There has been a long-term decline in hunter success and total harvest in Washington County; however, there has been an increase in production trend indices. Given the extensive urban development in the St. George-Hurricane areas since 1962, the decline in total harvest and hunter success is only partly attributable to habitat loss. There are areas that sustain quail populations that cannot be hunted because of urban expansion (i.e. Bloomington, Bloomington East, Santa Clara River below Santa Clara, north of St. George). These were popular hunting areas in the early 1960's (D. Nish personal communication).









### Brood Counts

Results of the annual random brood counts for 1991 are shown in Table 1 of this section. Long-term trends of young per adult ratios, mean brood size and quail observed per 100 hours are shown in Tables 2-4 and Figure 1. Gambel's quail long period waterhole count trends are in Table 10. Survey results for 1991 compared to 1990 and the previous 10-year (1981-90) average follow:

|                              |             | Percent     | <u>change irom</u> |
|------------------------------|-------------|-------------|--------------------|
|                              | <u>1991</u> | <u>1990</u> | <u>Average</u>     |
| Total quail observed         | 29          | -83         | -92                |
| Young per 100 adults         | 480         | +23         | +64                |
| Mean brood size              | 9.00        | -14         | +23                |
| Quail observed per 100 hours | 580         | -63         | -33                |
| Total hours effort           | 5           | -55         | -91                |

Harvest statistics for 1990 indicated a decreased breeding population of quail statewide. In Washington County hunter success rates increased slightly from the previous year.

Brood count effort decreased in 1991 due to Division specialization of conservation officer and biologist duties and no staffing of additional biologists under Phase I of reorganization. Only 29 quail were observed in 1991 which was 92 percent below average. Total hours of effort on brood counts was 5 which is 91 percent below average for the last 10 years. The production index of young per 100 adults for Gambel's quail was 62 percent higher than what it was the previous year. Production statewide increased from 1990 and was above average.

Temperatures and precipitation were below average in the Dixie climatic subdivision April through July. The winter was mild. The drought continued.

### Harvest

Results of the annual hunter questionnaire for 1991 are shown in Table 5. Long-term trends of quail bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 6-8, and total statewide harvest statistics in Table 9.

Comparison of the 1991 season to 1990 and the previous 32-year average follow:

|                      |             | Percent | <u>change</u> from |
|----------------------|-------------|---------|--------------------|
|                      | <u>1991</u> | 1990    | Average            |
| Quail hunters        | 2,644       | +1      | -52                |
| Quail harvested      | 5,775       | -5      | -62                |
| Hunter-days afield   | 7,393       | -14     | -47                |
| Quail per hunter-day | 0.78        | +10     | -25                |
| Quail per hunter     | 2.18        | -6      | -17                |

Harvest for 1991 decreased 5 percent from 1990 and was 62 percent below average.

In Washington County (Gambel's quail), hunter success increased 40 percent and hunter days afield increased 33 percent from 1990. Total harvest increased 87 percent. Thirty-five percent of the statewide harvest of quail was taken in Washington County during 1991 compared to 18 percent in 1990, 32 percent in 1989, 28 percent in 1988, 43 percent in 1987, 29 percent in 1986 and 36 percent in 1985.

Long-term quail harvest statistics are shown in Figures 2 and 3.

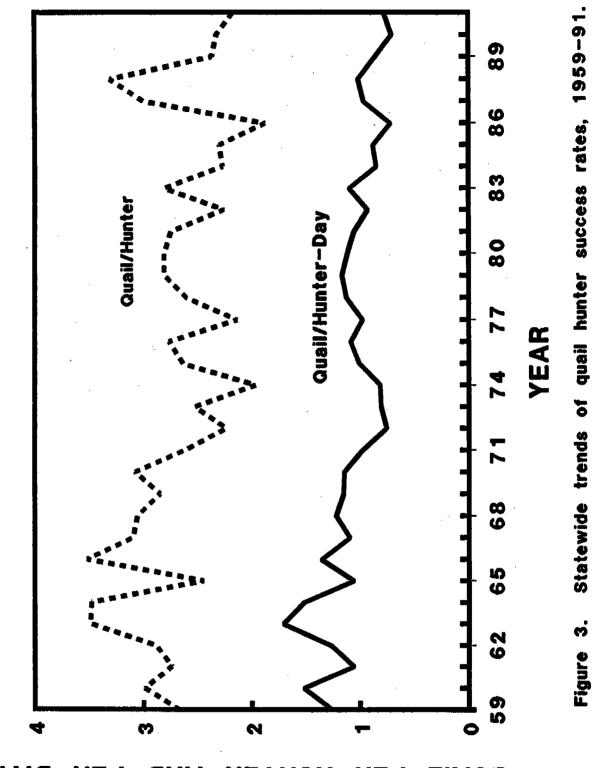




Figure 3.

|                        |   | Distinct |       |       | MIXED YOUNG  |    |            |        |       |                   |            |          |                  |          |       |         |
|------------------------|---|----------|-------|-------|--------------|----|------------|--------|-------|-------------------|------------|----------|------------------|----------|-------|---------|
| Region and             |   | Broods   |       | Mean  | & Adults     |    | Adults w/o | Total  | Tatal | Young/            | Vehicle    |          | llours of Effort | f Effort |       | Birds/  |
| County                 | - | Adults   | Young | Brood | Adults Young |    | Young      | Adults | Young | 100 Advilts Mites | 1          | Veluicle | Horse            | Walk     | Total | 100 IIr |
| Northern Region        |   |          |       |       |              |    |            |        |       |                   |            |          |                  |          |       |         |
| Box Elder              | I | ı        | 1     | ;     | ł            | ı  | 1          | ł      | 1     | ı                 | I          | ı        | 1                | I        | I     | 1       |
| Cache                  | 1 | I        | ł     | ł     | I            | 1  | 1          | 1      | ı     | 1                 | ;          | ı        | ı                | I        | ł     | I       |
| Davis                  | I | 1        | I     | 1     | 1            | 1  | 1          | 1      | 1     | I                 | ı          | 1        | I                |          | ı     | 1       |
| Morgan                 | 1 | I        | 1     | 1     | ;            | ı  | 1          | ;      | 1     | ł                 | 1          | 1        | I                | I        | I     | I       |
| Rich                   | I | 1        | 1     | 1     | ı            | ł  | :          | ı      | ı     | ł                 | ł          | ı        | I                | I        | I     | 1       |
| Summit                 | ł | ı        | 1     | :     | ;            | I  | I          | 1      | 1     | 1                 | 1          | ł        | 1                | ł        | I     | ł       |
| Weber                  | I | ł        | 1     | 1     | ł            | 1  | ı          | ;      | ı     | :                 | I          | I        | ł                | ı        | ı     | I       |
| REGIONAL TOTALS        | · | .        | 1     | 1     | 1            | ,  | :          | :      | 1     | 1                 |            | 1        | 1                | ;        | ,     | '       |
| Central Region         |   |          |       |       |              |    |            |        |       |                   |            |          |                  |          |       |         |
| Juab                   | ł | I        | I     | 1     | 1            | I  | 1          | ;      | 1     | ł                 | 1          | ł        | I                | I        | ı     | I       |
| Salt Lake              | ł | 1        | 1     | 1     | 1            | ı  | 1          | 1      | ı     | ;                 | ı          | 1        | I                | I        | I     | I       |
| Sanpete                | I | I        | I     | :     | I            | ı  | ł          | 1      | I     | 1                 | 1          | 1        | 1                | 1        | I     | I       |
| Tooele                 | I | 1        | ł     | I     | t            | ł  | ł          | ł      | I     | 1                 | ł          | i        | ı                | 1        | I     | I       |
| Utah                   | - | -        | ð     | 9.00  | 1            | I  | I          | I      | Q     | 900               | 1          | -        | I                | I        | 1     | 1,000   |
| Wasatch                | I | Ì        | I     | ł     | I            | I  | ı          | 1      | ł     | ł                 | 1          | 1        | I                | 1        | I     | I       |
| REGIONAL TOTALS        | - | -        | ٩     | 9.00  | :            | ,  | :          | -      | 6     | 906               |            | -        | ,                | ,        | -     | 1,000   |
| Southern Region        |   |          |       |       |              |    |            |        | 1     |                   |            |          |                  |          |       |         |
| Beaver                 | 1 | I        | I     | I     | I            | I  | ŧ          | ł      | I     | t                 | I          | ı        | ı                | ı        | ł     | ì       |
| Garfield               | I | I        | ı     | 1     | :            | 1  | 1          | ı      | ;     | ł                 | 1          | ł        | I                | 1        | ı     | 1       |
| Iron                   | 1 | I        | 1     | :     | ı            | ı  | ı          | 1      | I     | 1                 | ı          | I        | I                | I        | ı     | I       |
| Kante                  | 1 | ı        | ı.    | !     | ;            | I  | I.         | 1      | I     | 1                 | 1          | 1        | I                | I        | ł     | I       |
| Mülard                 | I | I        | 1     | 1     | I            | 1  | ı          | ı      | 1     | 1                 | :          | ł        | ı                | 1        | 1     | I       |
| Piute                  | 1 | I        | 1     | :     | ł            | ı  | ı          | 1      | I     | ł                 | ı          | 1        | ı                | I        | ı     | I       |
| Sevier                 | ı | 1        | I     | I     | ;            | 1  | 1          | ľ      | 1     | 1                 | ł          | ł        | I                | ı        | ı     | ļ       |
| Washington             | I | I        | 1     | 1     | 1            | ı  | I          | ł      | ł     | ł                 | 1          | ı        | 1                | :        | I     | ł       |
| Wayne                  | 1 | ı        | 1     | 1     | ł            | I  | 1          | 1      | I     | 1                 | 1          | ı        | 1                | 1        | I     | ŧ       |
| REGIONAL TOTALS        | t |          | I,    | 1     |              | 1  | t          | ł      | I     | 1                 | 1          | 1        | 1                | I        | 1     | 1       |
| Northeastern Region    |   |          |       |       |              |    |            |        |       |                   |            |          |                  |          |       |         |
| Daggett                | I | t        | ł     | I     | I            | 1  | ı          | ı      | I     | 1                 | ł          | ı        | I                | ı        | I     | I       |
| Ducheste               | 1 | I        | I     | 4     | 4            | 15 | 1          | 4      | 15    | 375               | <b>2</b> 0 | 4        | ł                | 1        | 4     | 475     |
| Uintab                 | 1 | 1        | 1     | ŧ     | ;            | 1  | ı          | ı      | •     | :                 | 1          | 1        | :                | 1        | I     | F       |
| REGIONAL TOTALS        | I | 1        | I     | :     | 4            | 15 | 1          | 4      | 15    | . 37S             | <b>2</b> 0 | 4        | T                | 1        | 4     | 475     |
| Southeastern Region    |   |          |       |       |              |    |            |        |       |                   |            |          |                  |          |       |         |
| Carbon                 | 1 | 1        | 1     | I     | 1            | 1  | ł          | I      | ł     | 1                 | 1          | 1        | t                | :        | ı     | ł       |
| Emery                  | 1 | 1        | 1     | ;     | ł            | I  | :          | :      | 1     | :                 | 1          | I        | ı                | 1        | 1     | I       |
| Grand                  | 1 | I        | 1     | 1     | 1            | 1  | 1          | 1      | I     | ı                 | 1          | 1        | ł                | 1        | ı     | ł       |
| San Juan               | 1 | ł        | 1     | ;     | 1            | I  | t          | 1      | 1     | 1                 | ł          | ı        | ı                | :        | ;     | I       |
| <b>REGIONAL TOTALS</b> | 1 | 1        | 1     | 1     | 1            | ŧ  | :          | 1      | 1     | 1                 | 1          | 1        | +                | :        | 1     | 1       |
|                        |   |          |       |       |              |    |            |        |       |                   |            |          |                  |          |       |         |

| Region and          |      |             |      |      |       | Year   |       |              |      |      |      | Average |
|---------------------|------|-------------|------|------|-------|--------|-------|--------------|------|------|------|---------|
| County              | 1981 | 1982        | 1983 | 1984 | 1985  | 9861   | 4861  | 1988         | 1989 | 1990 | 1661 | 1981-90 |
| Northern Region     |      |             |      |      |       |        |       |              |      |      |      |         |
| Box Elder           | 440  | 1           | i    | 1    | 1     | 1      | I     | ı            | 1    |      | ł    |         |
| Cache               | 1    | I           | :    | ł    | I     | ı      | ł     | 1            | ı    | ł    | ı    |         |
| Davis               | R    | 1           | ł    | 1    | 1     | 1      | 1     | :            | 1    | I    | 1    |         |
| Morgan              | ŧ    | :           | 550  | ł    | 1,050 | 1      | ı     | I            | ł    | 1    | 1    |         |
| Rich                | ł    | ł           | :    | 1    | . 1   | ı      | :     | 1            | 1    | :    | I    |         |
| Summit              | 1    | ł           | 1    | ł    | 1     | ı      | I     | ł            | ł    | 1    | ı    |         |
| Weber               | 1    | I           | 125  | 125  | ı     | ı      | 1.400 | ;            | 1    | I    | ł    |         |
| REGIONAL TOTALS     | 128  | .           | 130  | 125  | 1.050 | '      | 1.400 | 224          |      | 939  | 1    | 530     |
| Central Region      |      |             |      |      |       |        |       |              |      |      |      |         |
| Juab                | 1    | ł           | I    | I    | ł     | ł      | 1     | I            | 1    | 1    | 1    |         |
| Salt Lake           | (1)  | 4           | 40   | ı    | ı     | 1      | I     | ı            | 1    | I    | 1    |         |
| Samete              | ;    | : 1         | : 1  | :    | I     | I      | :     | 1            | 1    | 1    | I    |         |
| Tonele              | ı    | ۱           | I    | ł    | 1     | 1      | I     | I            | ł    | I    | ł    |         |
| Utah                | 100  | ı           | 1    | ı    | 700   | 700    | 220   | 1            | 1    | 1    | We   |         |
| Wasatch             | 1    | 1           | 1    | 1    |       | I      | 1     | ;            | 1    | 1    | 1    |         |
| REGIONAL TOTALS     | 12   | \$          | 9    | 1    | 180   | 300    | 220   |              | ,    | 1    | 8    | 205     |
| Southern Region     |      | 1           |      |      |       |        |       |              |      |      |      |         |
| Beaver              | 1    | ı           | 1    | I    | ı     | I      | 1     | ł            | 1    | ı    | :    |         |
| Garfield            | I    | ı           | I    | 1    | ł     | I      | 1     | ľ            | ;    | 1    | 1    |         |
| lron                | ł    | ı           | ı    | ł    | 1     | 1      | I     | 1            | 1    | ı    | I    |         |
| Kane*               | 1    | ł           | :    | 1    | ł     | I      | 1     | I            | ł    | 1    | I    |         |
| Millard             | 540  | 300         | 133  | 133  | 138   | 4      | 545   | 9 <u>6</u>   |      | 179  | ł    |         |
| Piute               | ı    | ı           | ı    | t    | ı     | 1      | ł     | 1            | 1    | :    | ł    |         |
| Serier              | 1    | 250         | 1    | I    | ı     | ł      | 1     | 1            | ł    | ł    | t    |         |
| Washington*         | 226  | 152         | 624  | 224  | 11S   | 412    | 250   | 9 <b>7</b> 1 | 194  | 367  | 1    |         |
| Wayne*              |      | :           | •    | 1    | ł     | 1      | :     | t            | 1    | 1    | I    |         |
| REGIONAL TOTALS     |      | 162         | 544  | 213  | 434   | 456    | 272   | 242          | 194  | 252  | 1    | 321     |
| Northeastern Region |      |             |      |      |       |        |       |              |      |      |      |         |
| Daggelt             | I    | ŧ           | ı    | 1    | 1     | 1      | ı     | 1            | 1    | 1    | I    |         |
| Duchene             | 583  | 90 <u>9</u> | ł    | 1    | ł     | 1      | ı     | 300          | ı    | 1    | 375  |         |
| Vintah              |      | 411         | ı    | t    | 1     | F      | 1     | 126          | 420  | 667  | 1    |         |
| REGIONAL TOTALS     |      | 286         | 1    | :    | 1     | ,<br>; |       | 177          | 420  | 667  | 375  | 38      |
| Southeastern Region |      |             |      |      |       |        |       |              |      |      |      |         |
| Carbon              | 1    | ł           | ı    | 1    | I     | 1      | I     | ı            | ł    | :    | 1    |         |
| Emery               | 1    | ı           | 1    | :    | ı     | F      | ı     | 1            | :    | I    | ł    |         |
| Grand               | 300  | :           | 1    | ı    | 1     | 1      | 1     | ł            | 1    | t    | ł    |         |
| Sen Juan            | ,    | :           | 1    | ı    | 1     | ł      | ł     | 1            | :    |      | 1    |         |
| RECIONAL TOTALS     | 300  |             | Ľ    | I    | •     | J      |       | r            | :    | 1    | 1    | 300     |
| STATE TOTAL C       |      |             |      |      |       |        |       |              |      |      |      |         |

| Keppin and             |       |      |       |      |            | Year |       |              |      |       |             | Average |
|------------------------|-------|------|-------|------|------------|------|-------|--------------|------|-------|-------------|---------|
| County                 | 1981  | 1982 | 1983  | 1984 | 1985       | 1986 | 1987  | 1988         | 1989 | 1990  | 1991        | 1981-90 |
| Northern Region        |       |      |       |      |            |      |       |              |      |       |             |         |
| Box Elder              | 11.00 | 'n   |       | ı    | . <b>1</b> | 1    | ı     | ı            | ı    | I     | I           |         |
| Cache                  | :     | ı    | 1     | ı    | ł          | 1    | 1     | ŧ            | I    | ı     | 1           |         |
| Davis                  | 1.33  | ı    | ı     | ł    | 1          | 1    | I     | 6.33         | 1    | 11.80 | ı           |         |
| Morgan                 | 1     | 1    | 11.00 | ;    | 10.50      | I    | 1     | 1            | ı    | ı     | 1           |         |
| Rich                   | ł     | ı    | I     | :    | ł          | ı    | I     | ł            | I    | 1     | I           | • .     |
| Summit                 | ı     | ı    | ł     | 1    | 1          | 1    | 1     | 1            | ı    | 1     | 1           |         |
| Weber                  | 1     | 1    | ł     | 3.75 | 1          | 1    | I     | 14.00        | 1    | •     | I           |         |
| REGIONAL TOTALS        | 6.85  | 1    | 5.20  |      | 10.50      |      | 14.00 | 5.33         |      | 11.80 | 1           | 8.95    |
| Central Region         |       |      |       |      |            |      |       |              |      |       |             |         |
| leaf.                  | 1     | ı    | :     | I    | 1          | 1    | I     | ı            | I    | 1     | ı           |         |
| Sole I abo             | 1     | 1    | 1.00  |      | 1          | ı    | I     | I            | 1    | ł     | 1           |         |
| Saut Lance<br>Correcto | I     | 1    |       | 1    | 1          |      | 1     | ;            | I    | 1     | ı           |         |
|                        | I     |      |       |      |            |      |       | I            | 1    | I     | I           |         |
| 1 ooele                | 1     | ı    | 1     | I    | 1          | 1    | 1     | ı            | 1    | I     |             |         |
| Utah                   | 3.60  | I    | 1     | 1    | - Mî - Z   |      | A0.11 | I            | I    | 1     | <b>M*</b> K |         |
| Wasatch                | ,     | '    | 1     | ŀ    | 1          | 1    |       | 1            | •    | ,     |             |         |
| <b>REGIONAL TOTALS</b> | 3.00  | 1    | 3.00  | 1    | 7.00       | 7.50 | 11.00 | 1            | •    | ı     | 8.6<br>8    | 6.30    |
| Southern Region        |       |      |       |      |            |      |       |              |      |       |             |         |
| Beaver                 | ı     | I    | ı     | ł    | ı          | I    | ı     | ı            | I    | I     | 1           |         |
| Garfield               | 1     | ł    | ł     | ı    | 1          | I    | r     | 1            | ı    | 1     | 1           |         |
| Iroa                   | 1     | 1    | ı     | ı    | ł          | :    | 1     | ı            | I    | 1     | i           |         |
| Kane*                  | 1     | 1    | :     | 1    | ł          | ı    | 1     | 1            | :    | 1     | 1           |         |
| Millard                | 8.54  | ı    | 3.00  | 4.00 | 0.0        | 1.80 | 12.00 | 11.28        | 1    | 12.50 | 1           |         |
| Piute                  | ı     | ۱    | ı     | I    | 1          | 1    | 1     | 1            | ı    | I     | ı           |         |
| Sevier                 | I     | I    | I     | 1    | ı          | ı    | ı     | I            | 1    | I     | 1           |         |
| Washington*            | 6.42  | 6.00 | 13.50 | 5.09 | 8.43       | 7.85 | 5.59  | 4.64         | I    | 11.00 | 1           |         |
| Wayne*                 | 5.50  | 1    | 1     | ı    | 1          | •    | ,     | 1            | ı    | ,     | 1           |         |
| REGIONAL TOTALS        | 7.97  | 6.00 | 11.17 | 5.06 | 8.56       | 6.64 | 6.16  | 7.22         | 1    | 11.00 | '           | 7.75    |
| Northeastern Region    |       |      |       |      |            |      |       |              |      |       |             |         |
| Daggett                | ł     | 1    | 1     | :    | ł          | 1    | 1     | ı            | I    | 1     | I           |         |
| Duchesne               | 9.00  | 1    | 1     | ł    | I          | 1    | 1     | <b>6</b> .00 | 1    | ı     | 1           |         |
| Uintah                 | 12.80 | 6.17 | Ι.    | I    | 1          | 1    | 1     | 8.50         | 4.50 | 6.70  | 1           |         |
| REGIONAL TOTALS        | 11.71 | 6.17 | 1     | 1    | 1          | 1    | 1     | 8.15         | 4.50 | 6.70  | ı           | 7.45    |
| Southeastern Region    |       |      |       |      |            |      |       |              |      |       |             |         |
| Carbon                 | I     | ł    | 1     | ŧ    | I          | 1    | 1     | ŀ            | I    | 1     | t           |         |
| Emery                  | ı     | ł    | ł     | ł    | I          | ı    | ı     | 1            | 1    | I     | 1           |         |
| Grand                  | 4.50  | 1    | ı     | :    | <b>1</b>   | I    | ı     | ł            | 1    | 1     | ł           |         |
| San Juan               | 1     | 1    | 1     | 1    | ;          | 1    | :     | 1            | 1    | 1     | 1           |         |
| REGIONAL TOTALS        | 4.50  | ;    | E     | :    | :          | 1    | 1     | 1            | 1    | ,     | 1           | 4.50    |
|                        |       |      |       |      | •          |      | 5,    | 54.0         |      | 10 AC | 000         | 14.6    |

| Kegion and          |       |          |                 |      |         |       |            |       |      |              |       |        |
|---------------------|-------|----------|-----------------|------|---------|-------|------------|-------|------|--------------|-------|--------|
| County              | 1861  | 1982     | 1983            | 1984 | 1985    | 1986  | 1987       | 1988  | 1989 | 9 <u>6</u> 1 | 1991  | 1981-9 |
| Northern Region     |       |          |                 |      |         |       |            |       |      |              |       |        |
| Box Elder           | 1,800 | ı        | I               | 1    | 1       | 1     | ł          | 1     | I    | 1            | I     |        |
| Carche              | ;     | 1        | t               | ł    | ı       | 1     | 1          | ı     | I    | ı            | 1     |        |
| Davis               | 525   | 1        | I               | ;    | 1       | 1     | I          | 1,100 | ł    | 1            | ł     |        |
| Morgan              | I     | 1        | 111             | 1    | ı       | 1     | I          | ı     | ł    | ł            | ł     |        |
| Rich                | :     | 1        | 1               | ł    | 1       | 1     | ł          | I     | 1    | 1            | ı     |        |
| Summit              | I     | ł        | 1               | 1    | I       | ł     | ı          | I     | ł    | 1            | ı     |        |
| Weber               | I     | 1        | 825             | 1    | ţ       | 1     | 1,500      | 1     | 1    | 1            | 1     |        |
| REGIONAL TOTALS     | 168   | .        | 511             | 1    | 1       | 1     | 1,500      | 1,100 | 1    | I            | 1     | 88     |
| Central Region      |       |          |                 |      |         |       |            |       |      |              |       |        |
| Juab                | 1     | I        | I               | I    | I       | 1     | ł          | 1     | ł    | I            | 1     |        |
| Salt Lake           | 63    | 527      | 1,400           | 1    | 1       | 1     | 1          | I     | 1    | ł            | I     |        |
| Sanpete             | I     | I        | I               | i    | ı       | ı     | 1          | 1     | I    | 1            | ı     |        |
| Tooele              | 1     | ı        | I               | ł    | 1       | 1     | ı          | ı     | ;    | ;            | l     |        |
| Utah                | 75    | 1        | 1               | 1    | 320     | 2,000 | 1,600      | t     | I    | I            | 1,000 |        |
| Wasatch             | ı     | I        | 1               |      | ŀ       | 1     | ł          | T     | 1    | '            | 1     |        |
| REGIONAL TOTALS     | 258   | 414      | 247             | 1    | 320     | 2,000 | 1,600      | t     | 1    | 1            | 7,000 | 8      |
| Southern Region     |       |          |                 |      |         |       |            |       |      | -            |       |        |
| Beaver              | ł     | ł        | 1               | ı    | ı       | I     | ı          | 1     | ı    | <b>i</b> .   | I     |        |
| Garfield            | ı     | <b>і</b> | I               | :    | t       | 1     | ı          | :     | 1    | I            | 1     |        |
| Iroa                | 1     | 1        | 1               | I    | I       | 1     | 1          | 1     | I    | ı            | r     |        |
| Kane*               | ı     | ł        | ł               | ł    | 1       | 1     | I          | ı     | 1    | 1            | 1     |        |
| Müllard             | 3,911 | 800      | 350             | 171  | 344     | 867   | 1,303      | 1,271 | 1    | 975          | t     |        |
| Piate               | :     | I        | 1               | I    | ı       | 1     | ı          | 1     | I    | 1            | 1     |        |
| Serier              | ł     | 1,400    | I               | I    | 1       | 1     | I          | ı     | 1    | 1            | I     |        |
| Washington*         | 275   | Ш        | 605             | 380  | 783     | 1,604 | 2,029      | 530   | 8    | 1,050        | 1     |        |
| Wayne*              | 1     | 8        | 1               | ,    | 1       | •     | 1          | I     |      | 1            | •     | 000    |
| REGIONAL TOTALS     | 1,053 | 69       | <b>8</b> 8<br>8 | 357  | <u></u> | 1,484 | 1,958      | 251   | 8    | 1,013        | ı     | 828    |
| Northeastern Region |       |          |                 |      |         |       |            |       |      |              |       |        |
| Daggett             | I     | 1        | 1               | 1    | 1       | I     | I          | 1     | ı    | 1            | . !   |        |
| Duchesne            | 205   | . 12     | 4               | I    | I       | ı     | I          | 356   | 1    | 1            | 475   |        |
| Uintah<br>          | 708   | 328      | <u>8</u>        | ,    | •       | 1     | ;          | 1,80  | 5    | 767          | ı     |        |
| REGIONAL TOTALS     | 406   | 123      | 88              | 1    | 1       | ;     | ,          | 11    | 371  | 191          | 475   | ŧ      |
| Southeastern Region |       |          |                 |      |         |       |            |       |      |              |       |        |
| Carbon              | I     | I        | I               | ł    | 1       | :     | 1          | ł     | 1    | I            | I     |        |
| Emery               | ł     | ł        | 1.              | 1    | :       | 1     | 1          | I     | 1    | 1            | ı     |        |
| Grand               | 400   | :        | ı               | 1    | 1       | 1     | <b>1</b> . | ł     | 1    | I            | 1     |        |
| San Juan            | 1     | ;        | •               | ,    | ;       |       | -          | Ľ     | •    | ,            | ľ     |        |
| REGIONAL TOTALS     | 400   | 1        | 1               | 1    | 1       | 1     | 1          |       | ŧ    | •            | ł     | ŝ      |
|                     |       |          |                 |      |         |       |            | ę     |      |              |       |        |

| REGION AND<br>COUNTY | SAMPLE<br>SIZE* | HUNTER-DAYS<br>Afield | BIRDS<br>BAGGED | BIRDS PER<br>HUNTER-DAY | ۴ OF<br>PRESSURE | € OF<br>HARVEST |
|----------------------|-----------------|-----------------------|-----------------|-------------------------|------------------|-----------------|
| NORTHERN REGION      |                 |                       |                 |                         |                  |                 |
| BOX ELDER            | 8               | 226                   | 86              | 0.38                    | 3.06             | 1.51            |
| CACHE * *            | 3               | 104                   | 0               | 0.00                    | 1.41             | 0.00            |
| DAVIS                | 4               | 104                   | 86              | 0.83                    | 1.41             | 1.51            |
| MORGAN * *           | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| RICH**               | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| SUMMIT**             | 1               | 52                    | Ō               | 0.00                    | 0.71             | 0.00            |
| WEBER                | 9               | 226                   | 121             | 0.54                    | 3.06             | 2.11            |
| REGIONAL TOTALS      | 25              | 713                   | 295             | 0.41                    | 9.65             | 5.12            |
| CENTRÁL REGION       |                 | <b>_</b>              |                 |                         |                  |                 |
| JUAB                 | 2               | 69                    | 504             | 7.25                    | 0.94             | 8.74            |
| SALT LAKE            | 1               | 104                   | 226             | 2.17                    | 1.41             | 3.92            |
| SANPETE**            | 1               | 69                    | 0               | 0.00                    | 0.94             | 0.00            |
| TOOELE**             | 3               | 121                   | 34              | 0.29                    | 1.65             | 0.60            |
| UTAH                 | 33              | 1,635                 | 991             | 0.61                    | 22.12            | 17.17           |
| WASATCH**            | 0               | 0                     | . 0             | 0.00                    | 0.00             | 0.00            |
| REGIONAL TOTALS      | 40              | 2,000                 | 1,757           | 0.88                    | 27.06            | 30.43           |
| SOUTHERN REGION      | -               | _ ·                   | -               | • - •                   |                  |                 |
| BEAVER               | o               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| GARFIELD             | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| IRON                 | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| KANE                 | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| MILLARD              | 8               | 626                   | 52              | 0.08                    | 8.47             | 0.90            |
| PIUTE                | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| SEVIER               | 4               | 86                    | 156             | 1.80                    | 1.18             | 2.71            |
| WASHINGTON           | 42              | 2,383                 | 2,000           | 0.84                    | 32.24            | 34.64           |
| WAYNE                | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| REGIONAL TOTALS      | 54              | 3,096                 | 2,209           | 0.71                    | 41.89            | 38.26           |
| NORTHEASTERN REG     |                 |                       |                 |                         |                  |                 |
| DAGGETT              | 1               | 17                    | 17              | 1.00                    | 0.24             | 0.30            |
| DUCHESNE             | 9               | 330                   | 382             | 0.16                    | 4.47             | 6.63            |
| UINTAH               | 19<br>          | 991<br>               | 469             | 0.47                    | 13.41            | 8.13            |
| REGIONAL TOTALS      | 29              | 1,339                 | 869             | 0.65                    | 18.12            | 15.06           |
| SOUTHEASTERN REG     | -               | 60                    | 333             | 4 50                    | 0.04             | F 45            |
| CARBON               | 2               | 69                    | 313             | 4.50                    | 0.94             | 5.42            |
| EMERY                | 3               | 156                   | 330             | 2.11                    | 2.12             | 5.72            |
| GRAND                | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| SAN JUAN             | 0               | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| REGIONAL TOTALS      | 5               | 226                   | 643             | 2.85                    | 3.06             | 11.15           |
| UNKNOWN              | 1               | 17                    | 0               | 0.00                    | 0.24             | 0.00            |
| STATE TOTALS         | 154             | 7,393                 | 5,775           | 0.78                    | 100.00           | 100.00          |

Table 5. Summary of quail hunter success and distribution of harvest and hunting

\*Total hunter-trips from questionnaire returns. \*\*Closed to quail hunting in 1991.

| Region and        |       |      |      | •    | Year  |       |       |      |
|-------------------|-------|------|------|------|-------|-------|-------|------|
| County            | 1984  | 1985 | 1986 | 1987 | 1988  | 1989  | 1990  | 1991 |
| Northern Region   |       |      |      |      | •     |       |       |      |
| Box Elder         | 0.21  | 0.50 | 0.00 | 0.23 | 0.80  | 0.90  | 0.71  | 0.38 |
| Cache             | 0.00  | 0.00 | 1.00 | 0.43 | 0.22* | 0.20* | 0.10* | 0.00 |
| Davis             | 0.43  | 0.45 | 0.44 | 0.43 | 0.74  | 0.67  | 0.15  | 0.83 |
| Morgan            | 0.00  | 1.00 | 1.00 | 2.00 | 1.00* | 0.00* | 2.00* | 0.00 |
| Rich              | 0.00  | 0.00 | 0.00 | 0.00 | 1.00* | 0.00* | 0.00* | 0.00 |
| Summit            | .0.00 | 0.00 | 0.40 | 0.00 | 0.00* | 0.00* | 0.00* | 0.00 |
| Weber             | 0.64  | 0.71 | 0.69 | 0.11 | 0.35  | 0.21  | 0.50* | 0.54 |
| REGIONAL TOTALS   | 0.40  | 0.54 | 0.50 | 0.35 | 0.60  | 0.38  | 0.39  | 0.41 |
| Central Region    |       |      |      |      |       |       |       |      |
| Juab              | 0.33  | 0.00 | 2.00 | 0.00 | 1.38  | 0.00  | 0.19  | 7.25 |
| Salt Lake         | 0.32  | 1.88 | 0.43 | 0.83 | 1.18  | 0.50  | 0.42  | 2.17 |
| Sanpete           | 0.00  | 1.50 | 1.00 | 0.86 | 0.80* | 0.25* | 0.00* | 0.00 |
| Tooele            | 0.22  | 1.50 | 0.33 | 1.00 | 1.24* | 3.25* | 0.60* | 0.29 |
| Utah              | 0.82  | 0.60 | 0.72 | 0.59 | 0.46  | 0.84  | 0.75  | 0.61 |
| Wasatch           | 1.25  | 0.00 | 0.00 | 0.50 | 1.13* | 0.00  | 0.00* | 0.00 |
| REGIONAL TOTALS   | 0.65  | 0.85 | 0.69 | 0.63 | 0.80  | 0.87  | 0.55  | 0.88 |
| Southern Region   |       |      |      | -    |       |       |       |      |
| Beaver            | 0.00  | 1.83 | 0.00 | 0.00 | 5.00  | 0.00  | 0.00  | 0.00 |
| Garfield          | 0.00  | 0.00 | 0.00 | 0.00 | 5.00  | 0.00  | 0.00  | 0.00 |
| Iron              | 1.50  | 0.00 | 0.00 | 0.00 | 0.00  | 1.67  | 0.00  | 0.00 |
| Kane              | 0.00  | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 |
| Millard           | 1.00  | 0.63 | 1.55 | 0.96 | 0.00  | 0.90  | 1.06  | 0.08 |
| Piute             | 0.50  | 0.00 | 1.00 | 2.25 | 0.00  | 0.00  | 0.00  | 0.00 |
| Sevier            | 0.86  | 1.80 | 0.00 | 0.00 | 1.50  | 0.00  | 0.00  | 1.80 |
| Washington        | 1.98  | 1.23 | 1.27 | 2.33 | 2.30  | 1.26  | 0.60  | 0.84 |
| Wayne             | 0.00  | 0.00 | 0.00 | 0.00 | 2.00  | 0.80  | 0.00  | 0.00 |
| REGIONAL TOTALS   | 1.64  | 1.21 | 1.15 | 1.93 | 2.08  | 1.19  | 0.66  | 0.71 |
| Northeastern Regi |       | 4,64 |      |      | 2.00  |       |       |      |
| Daggett           | 0.00  | 0.00 | 0.00 | 0.50 | 0.00  | 0.00  | 0.00  | 1.00 |
| Duchesne          | 0.08  | 0.70 | 0.44 | 1.86 | 0.89  | 0.62  | 0.91  | 1.16 |
| Vintah            | 0.72  | 1.00 | 0.70 | 0.52 | 0.87  | 0.73  | 0.98  | 0.47 |
| REGIONAL TOTALS   | 0.54  | 0.86 | 0.63 | 0.81 | 0.88  | 0.68  | 0.95  | 0.65 |
| Southeastern Regi |       | 0.00 | 0.05 | 0.01 | 0.00  | 0.00  | 0.25  | 0.03 |
| Carbon            | 0.00  | 1.00 | 0.00 | 1.00 | 0.38  | 5.00  | 1.11  | 4.50 |
| Emerv             | 0.00  | 0.31 | 1.14 | 1.00 | 1.11  | 0.50  | 1.86  | 2.11 |
| Grand             | 0.00  | 0.00 | 0.00 | 0.50 | 0.80  | 0.00  | 2.00  | 0.00 |
| San Juan          | 0.00  | 0.00 | 0.00 | 0.00 | 0.00  | 8.00  | 0.00  | 0.00 |
| REGIONAL TOTALS   | 0.00  | 0.62 | 0.29 | 0.85 | 0.00  | 2.00  | 1.68  |      |
| REGIONAL IDIALS   | 0.00  | 0.62 | 0.29 | 0.85 | 0.77  | 2.00  | 1.00  | 2.85 |
| Unknown counties  | 0.00  | 0.00 | 0.00 | 0.00 | 2.00  | 0.00  | 0.00  | 0.00 |
| STATE TOTALS      | 0.85  | 0.88 | 0.72 | 0.97 | 1.02  | 0.86  | 0.71  | 0.78 |

Table 6. Summary of quail bagged per hunter-day by region and county, 1984-91.

| Region and        |        |        |        |        | Year   |        |        |          |
|-------------------|--------|--------|--------|--------|--------|--------|--------|----------|
| County            | 1984   | 1985   | 1986   | 1987   | 1988   | 1989   | 1990   | 1991     |
| Northern Region   |        |        |        |        |        |        |        |          |
| Box Elder         | 0.98   | 0.30   | 0.00   | 0.96   | 1.50   | 2.53   | 4.05   | 1.51     |
| Cache             | 0.00   | 0.00   | 0.44   | 1.92   | 0.37*  | 0.28*  | 0.34*  | 0.00     |
| Davis             | 6.11   | 5.16   | 3.59   | 1.92   | 6.98   | 1.69   | 1.35   | 1.51     |
| Morgan            | 6.11   | 0.60   | 0.90   | 0.64   | 0.18*  | 0.00*  | 0.68*  |          |
| Rich              | 0.00   | 0.00   | 0.00   | 0.00   | 0.18*  | 0.00*  | 0.00*  |          |
| Summit            | 0.00   | 0.00   | 0.90   | 0.00   | 0.00*  | 0.00*  | 0.00*  |          |
| Weber             | 2.19   | 6.07   | 4.94   | 0.32   | 1.32   | 1.97   | 5.41   | 2.11     |
| REGIONAL TOTALS   | 9.29   | 12.15  | 10.80  | 5.76   | 10.56  | 6.46   | 11.83  | 5.12     |
| Central Region    |        |        |        |        |        |        |        |          |
| Juab              | 0.48   | 0.00   | 0.90   | 0.00   | 4.15   | 0.00   | 1.69   | 8.74     |
| Salt Lake         | 1.46   | 9.11   | 2.69   | 1.60   | 3.77   | 0.84   | 2.70   | -3.92    |
| Sanpete           | 0.00   | 0.91   | 0.44   | 3.84   | 0.75*  | 0.56*  | 0.00*  |          |
| Tooele            | 0.98   | 0.91   | 0.90   | 0.64   | 6.79*  | 3.65*  | 1.01*  | 0.60     |
| Utah              | 18.33  | 12.45  | 34.24  | 18.58  | 9.43   | 21.35  | 16.89  | 17.17    |
| Wasatch           | 1.22   | 0.00   | 0.00   | 0.64   | 5.09*  | 0.00*  | 0.00*  | 0.00     |
| REGIONAL TOTALS   | 22.49  | 23.40  | 3.18   | 25.32  | 30.00  | 26.41  | 22.30  | 30.43    |
| Southern Region   |        |        |        |        |        |        |        |          |
| Beaver            | 0.00   | 3.33   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00     |
| Garfield          | 0.00   | 0.00   | 0.00   | 0.00   | 2.83   | 0.00   | 0.00   | 0.00     |
| Iron              | 0.72   | 0.00   | 0.00   | 0.00   | 1.88   | 1.40   | 0.00   | 0.00     |
| Kane              | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00     |
| Millard           | 7.82   | 1.52   | 7.65   | 7.69   | 0.00   | 5.34   | 5.74   | 0.90     |
| Piute             | 0.48   | 0.00   | 0.44   | 2.88   | 0.00   | 0.00   | 0.00   | 0.00     |
| Sevier            | 1.46   | 2.72   | 0.00   | 0.00   | 0.56   | 0.00   | 0.00   | 2.71     |
| Washington        | 46.45  | 35.56  | 29.27  | 42.62  | 27.73  | 32.30  | 17.57  | 34.64    |
| Wayne             | 0.00   | 0.00   | 0.00   | 0.00   | 0.75   | 1.12   | 0.00   | 0.00     |
| REGIONAL TOTALS   | 56.97  | 43.16  | 37.39  | 53.20  | 33.77  | 40.17  | 23.31  | 38.26    |
| Northeastern Req  |        | 40.10  |        |        |        |        |        |          |
| Daggett           | 0.00   | 0.00   | 0.00   | 0.32   | 0.00   | 0.00   | 0.00   | 0.30     |
| Duchesne          | 0.48   | 5.77   | 1.79   | 4.16   | 6.41   | 9.55   | 7.10   | 6.63     |
| Vintah            | 10.76  |        | 7,19   | 3.84   | 11.32  | 2.92   | 13.85  | 8.13     |
| REGIONAL TOTALS   | 11.24  |        | 9.00   | 8.33   | 17.73  | 22.47  | 20.95  | 15.06    |
| Southeastern Reg: |        | 14.05  |        | 0.00   |        |        |        |          |
| Carbon            | 0.00   | 4.85   | 0.00   | 0.32   | 0.56   | 1.40   | 3.38   | 5.42     |
|                   | 0.00   | 1.52   | 3.59   | 5.44   | 1.88   | 0.84   | 17.57  | 5.72     |
| Emery             | 0.00   | 0.00   | 0.00   | 1.60   | 0.75   | 0.00   | 0.68   | 0.00     |
| Grand             | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 2.25   | 0.00   | 0.00     |
| San Juan          |        |        |        | 7.37   | 3.20   | 4.49   | 21.62  | 11.15    |
| REGIONAL TOTALS   | 0.00   | 6.38   | 3.59   | 1.21   | 3.20   | 7.42   | 21.02  | <u> </u> |
| Unknown counties  | 0.00   | 0.00   | 0.00   | 0.00   | 4.71   | 0.00   | 0.00   | 0.00     |
| STATE TOTALS      | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00   |

Table 7. Percentage distribution of quail harvest by region and county, 1984-91.

\*Closed Season

| Region and        |        |        |        |        | Year     |        |        |        |
|-------------------|--------|--------|--------|--------|----------|--------|--------|--------|
| County            | 1984   | 1985   | 1986   | 1987   | 1988     | 1989   | 1990   | 1991   |
| Northern Region   | -      |        |        |        |          |        |        |        |
| Box Elder         | 3.93   | 0.53   | 1.94   | 4.02   | 1.92     | 2.41   | 4.09   | 3.06   |
| Cache             | 0.61   | 1.06   | 0.32   | 4.33   | 1.73*    | 1.20*  | 2.40*  | 1.41   |
| Davis             | 12.00  | 10.18  | 5.85   | 4.33   | 9.61     | 2.17   | 6.25   | 1.41   |
| Morgan            | 0.41   | 0.53   | 0.65   | 0.30   | 0.19*    | 0.96*  | .24*   |        |
| Rich              | 0.00   | 0.00   | 0.00   | 0.00   | 0.19*    | 0.00*  | 0.00*  | 0.00   |
| Summit            | 0.00   | 0.00   | 1.63   | 0.30   | 0.57*    | 0.00*  | 0.72*  | 0.71   |
| Weber             | 2.90   | 7.51   | 5.20   | 2.78   | 3.84     | 7.95   | 7.69   | 3.06   |
| REGIONAL TOTALS   | 19.87  | 19.83  | 15.63  | 16.08  | 18.07    | 14.70  | 21.39  | 9.65   |
| Central Region    |        |        |        |        |          |        |        |        |
| Juab              | 1.23   | 0.26   | 0.30   | 0.30   | 3.07     | 0.00   | 6.49   | 0.94   |
| Salt Lake         | 3.93   | 4.28   | 4.55   | 1.85   | 3.26     | 1.45   | 4.57   | 1.41   |
| Sanpete           | 0.61   | 0.53   | 0.32   | 4.33   | 0.96*    | 1.93*  | 0.24*  | 0.94   |
| Tooele            | 3.72   | 0.53   | 1.94   | 0.61   | 5.57*    | 0.96*  | 1.20   | 1.65   |
| Utah              | 19.04  | 18.23  | 34.19  | 30.65  | 20.76    | 21.69  | 16.11  | 22.12  |
| Wasatch           | 0.83   | 0.53   | 0.00   | 1.23   | 4.61*    | 0.00*  | 0.24*  | 0.00   |
| REGIONAL TOTALS   | 29.39  | 24.39  | 41.37  | 38.99  | 38.26    | 26.03  | 28.85  | 27.06  |
| Southern Region   |        |        | ·····  |        | <u>.</u> |        |        |        |
| Beaver            | 0.00   | 1.60   | 1.63   | 0.00   | 0.00     | 0.00   | 0.00   | 0.00   |
| Garfield          | 0.00   | 0.00   | 0.00   | 0.00   | 0.57     | 0.00   | 0.00   | 0.00   |
| Iron              | 0.41   | 0.80   | 0.65   | 0.00   | 0.38     | 0.72   | 0.00   | 0.00   |
| Kane              | 0.00   | 0.00   | 0.00   | 0.00   | 0.00     | 0.00   | 0.00   | 0.00   |
| Millard           | 6.62   | 2.14   | 3.57   | 7.73   | 2.50     | 5.06   | 3.85   | 8.47   |
| Piute             | 0.83   | 0.00   | 0.32   | 1.23   | 0.00     | 0.00   | 0.24   | 0.00   |
| Sevier            | 1.45   | 1.34   | 0.65   | 0.00   | 0.38     | 0.00   | 0.00   | 1.18   |
| Washington        | 19.87  | 25.47  | 16.60  | 17.64  | 12.30    | 21.93  | 20.91  | 34.24  |
| Wayne             | 0.20   | 0.00   | 0.00   | 0.00   | 0.38     | 1.20   | 0.00   | 0.00   |
| REGIONAL TOTALS   | 29.39  | 31.36  | 23.44  | 26.62  | 16.52    | 28.92  | 25.00  | 41.89  |
| Northeastern Reg. |        |        | 20144  | 20102  | 10.02    | 20172  | 20.00  |        |
| Daggett           | 0.00   | 0.00   | 0.00   | 0.61   | 0.00     | 0.00   | 0.00   | 0.24   |
| Duchesne          | 4.97   | 7.23   | 2.92   | 2.16   | 7.30     | 13.25  | 5.53   | 4.47   |
| Uintah            | 12.63  | 8.03   | 7.48   | 7.12   | 13.26    | 15.18  | 10,10  | 13.41  |
| REGIONAL TOTALS   | 17.59  | 15.27  | 10.42  | 9.90   | 20.57    | 28.44  | 15.63  | 18.12  |
| Southeastern Reg. |        |        | 19.76  |        |          | 20.77  |        |        |
| Carbon            | 2.90   | 4.28   | 6.83   | 0.30   | 1.53     | 0.24   | 2.16   | 0.94   |
| Emery             | 0.61   | 4.28   | 2.28   | 4.95   | 1.73     | 1.45   | 6.73   | 2.12   |
| Grand             | 0.20   | 4.28   | 0.00   | 3.09   | 0.96     | 0.00   | 0.24   | 0.00   |
| San Juan          | 0.00   | 0.26   | 0.00   | 0.00   | 0.98     | 0.00   | 0.24   | 0.00   |
| REGIONAL TOTALS   | 3.72   | 9.11   | 9.11   | 8.34   | 4.22     | 1.93   | 9.13   | 3.06   |
| ALGIONAL IVIALS   | 3.14   | 7.11   | 7.11   | 0.34   |          | 1.73   | . 7,13 | 3.00   |
| Unknown counties  | 0.00   | 0.00   | 0.00   | 0.00   | 2.30     | 0.00   | 0.00   | 0.24   |
| STATE TOTALS      | 100.00 | 100.00 | 100.00 | 100.00 | 100.00   | 100.00 | 100.00 | 100.00 |

Table 8. Percentage distribution of quail hunting pressure by region and county, 1984-90.

|               | Total   | Total   | Hunter-Days                           | Quail Per      | Quail Per |
|---------------|---------|---------|---------------------------------------|----------------|-----------|
| Year          | Hunters | Harvest | Afield                                | Hunter-Day     | Hunter    |
| 951           | 3,856   | 6,362   | 7,069                                 | 0.90           | 1.65      |
| 952           | 2,694   | 6,105   | 5,500                                 | 1.11           | 2.27      |
| 1953          | 2,676   | 5,753   | 4,494                                 | 1.28           | 2.15      |
| 954           | 3,855   | 7,479   | 8,696                                 | 0.86           | 1.94      |
| 1955          | -       | -       |                                       | 0.17           | 2.10      |
| 1956          | -       | -       |                                       | <del>.</del> . | 2.26      |
| 1957          |         | -       | -                                     | -              | 1.85      |
| 958           | -       |         | <u> </u>                              | -              | 3.73      |
| 959           | 8,554   | 22,854  | 18,174                                | 1.26           | 2.67      |
| 960           | 7,117   | 21,272  | 13,971                                | 1.52           | 2.99      |
| 961           | 9,980   | 27,362  | 25,746                                | 1.06           | 2.74      |
| 962           | 6,462   | 18,710  | 14,660                                | 1,27           | 2.89      |
| 963           | 8,059   | 28,088  | 16,383                                | 1.71           | 3.49      |
| .964          | 8,951   | 31,189  | 20,510                                | 1.52           | 3.48      |
| 965           | 6,163   | 17,532  | 16,528                                | 1.06           | 2.45      |
| 966           | 6,465   | 22,771  | 16,720                                | 1.36           | 3.52      |
| 967           | 8,455   | 26,187  | 23,806                                | 1.10           | 3.10      |
| 968           | 9,302   | 28,469  | 23,132                                | 1.23           | 3.06      |
| 969           | 9,160   | 26,119  | 22,529                                | 1.16           | 2.85      |
| 970           | 6,141   | 18,896  | 16,452                                | 1.15           | 3.08      |
| 971           | 8,039   | 21,082  | 21,595                                | 0.98           | 2.62      |
| 972           | 7,380   | 16,504  | 21,779                                | 0.76           | 2.24      |
| 973           | 5,654   | 14,324  | 17,777                                | 0.81           | 2.53      |
| 974           | 6,097   | 12,005  | 14,702                                | 0.82           | 1.97      |
| 975           | 6,397   | 16,903  | 16,805                                | 1.01           | 2.64      |
| 976           | 5,215   | 14,454  | 13,261                                | 1.09           | 2.77      |
| 977           | 4,446   | 9,496   | 9,646                                 | 0.98           | 2.14      |
| 978           | 5,924   | 15,491  | 13,649                                | 1.13           | 2,61      |
| 979           | 5,632   | 15,821  | 13,550                                | 1.17           | 2.81      |
| 980           | 4,156   | 11,690  | 10,400                                | 1,12           | 2.81      |
| 981           | 4,946   | 13,586  | 12,843                                | 1.06           | 2.75      |
| 982           | 4,368   | 9,870   | 10,575                                | 0.93           | 2.26      |
| 983           | 4,012   | 11,248  | 10,232                                | 1.10           | 2.81      |
| 984           | 3,654   | 8,303   | 9,805                                 | 0.85           | 2.27      |
| 985           | 3,065   | 7,051   | 7,994                                 | 0.88           | 2.30      |
| 986           | 2,432   | 4,574   | 6,326                                 | 0.72           | 1.88      |
| 987           | 2,549   | 7,648   | 7,918                                 | 0.97           | 3.00      |
| 988           | 2,671   | 8,849   | 8,682                                 | 1.02           | 3.31      |
| 989           | 3,111   | 7,384   | 8,607                                 | 0.86           | 2.37      |
| 990           | 2,614   | 6,091   | 8,561                                 | 0.71           | 2.33      |
| 991           | 2,644   | 5,775   | 7,393                                 | 0.78           | 2.18      |
| <b>fotals</b> | ·       |         | · · · ·                               |                |           |
| 1951-91)      | 202,896 | 553,297 | 506,470                               | · -            | _         |
| verages       | -       |         | · · · · · · · · · · · · · · · · · · · |                |           |
| 1951-90)      | 5,563   | 15,209  | 13,863                                | 1.05           | 2.62      |

| Table 9. Statewide summary | of | quail harvest | statistics, | 1951-91. |
|----------------------------|----|---------------|-------------|----------|
|----------------------------|----|---------------|-------------|----------|

Table 10. Gambet's quail long period waterhole count trend on the west slope of the Beaver Dam Munithins, Washington County, 1975-91. These counts have been conducted since 1962.

|                      |        |                |     |            |      |      |          | Year |      |      |      |           |      |      |      |      |      | Average      |
|----------------------|--------|----------------|-----|------------|------|------|----------|------|------|------|------|-----------|------|------|------|------|------|--------------|
| Index                | 1975   | 1975 1976 1977 | 161 | 1978       | 1979 | 1980 | 1981     | 1982 | 1983 | 1984 | 1985 | 1986      | 1987 | 1988 | 1989 | 1990 | 1991 | 1991 1975-90 |
|                      |        |                |     |            |      |      |          |      |      |      |      |           |      |      |      |      |      |              |
| Total Young          | 14S 61 | 61             | I   | 67         | 253  | 1    | 37       | 88   | 114  | 166  | 47   | 163       | 346  | 66   | 35   | 33   | 208  | 112          |
| <b>Total Adults</b>  | 20     | S              | I   | 29         | 77   | 2    | 25       | 33   | . 14 | 98   | 11   | <b>48</b> | 139  | 47   | 18   | •    | SS   | 4            |
| Total Quait          | 165    | 114            | 17  | <b>9</b> 8 | 330  | 124  | <b>G</b> | 118  | 128  | 252  | 58   | 211       | 487  | 106  | 23   | 42   | 243  | 147          |
| Young per 100 Adults | 725    | 115            | ł   | 353        | 329  | 138  | 148      | 258  | 814  | 193  | 427  | 340       | 250  | 126  | 194  | 367  | 594  | 318          |

# HUNGARIAN PARTRIDGE

# SUMMARY

Harvest data for 1990 indicated above average breeding populations for 1991. Limited brood data was collected in Box Elder County and indicated an increase in Hun production.

The 1991 hunt data indicated increased hunting pressure on Huns when compared to 1990. The number of Huns harvested increased 9 percent in 1991. Hunters afield increased 15 percent. Total hunters, days afield and harvest were still below the long-term average.

We expected continued improvement in Hungarian partridge populations in Box Elder County due to the large quantity of agricultural land set aside in the Conservation Reserve Program. We believe that increases in hunter success since 1985 reflect increased partridge populations as a direct result of CRP. Exceptions (declines) in 1988 and 1989 were probably due to drought. The decline in production and harvest in 1989 was possibly due to the hot, dry summer.



### Brood Counts

Results of the annual random brood counts for 1991 are shown in Table 1 of this section. Long-term trends of young per adult ratios, mean brood size and Huns observed per 100 hours are shown in Tables 2-4. Results of the survey for 1991 compared to 1990 and the previous 10-year (1981-90) average follow:

|                             |             | Percent | <u>change from</u> |
|-----------------------------|-------------|---------|--------------------|
|                             | <u>1991</u> | 1990    | <u>Average</u>     |
| Total Huns observed         | 134         | -14     | +54                |
| Young per 100 adults        | 793         | +98     | +78                |
| Mean brood size             | 12.50       | +40     | +24                |
| Huns observed per 100 hours | 327         | -37     | +239               |
| Total hours effort          | 41          | +37     | -58                |

Harvest data for 1990 indicated an above average breeding population for 1991. Hungarian partridge should have overwintered well since December through February were dryer than normal but temperatures in the Western and North Central climatic subdivisions were below normal in December and January. It was a relatively mild winter for partridge. However, this is the sixth year of drought. Young per 100 adults increased 98 percent from the previous year and was 78 percent above average.

### <u>Harvest</u>

### Hunter Ouestionnaire

Results of the annual hunter questionnaire for 1991 are shown in Table 5. Long-term trends of Huns bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 6-8 and total statewide harvest statistics in Table 9. The 1991 season compared to 1990 and the previous 32-year average follow:

|                             |             | <u>Percent</u> | <u>change from</u> |
|-----------------------------|-------------|----------------|--------------------|
|                             | <u>1991</u> | <u>1990</u>    | <u>Average</u>     |
| Hungarian partridge hunters | 2,662       | +15            | -26                |
| Hungarian partridge harvest | 7,376       | +9             | -4                 |
| Hunter-days afield          | 8,367       | +20            | -6                 |
| Huns per hunter-day         | 0.88        | -9             | +8                 |
| Huns per hunter             | 2.77        | -6             | +36                |

Hungarian partridge hunters and hunting pressure increased. Success decreased 9 percent from 1990. Harvest was 4 percent below the 32-year average.

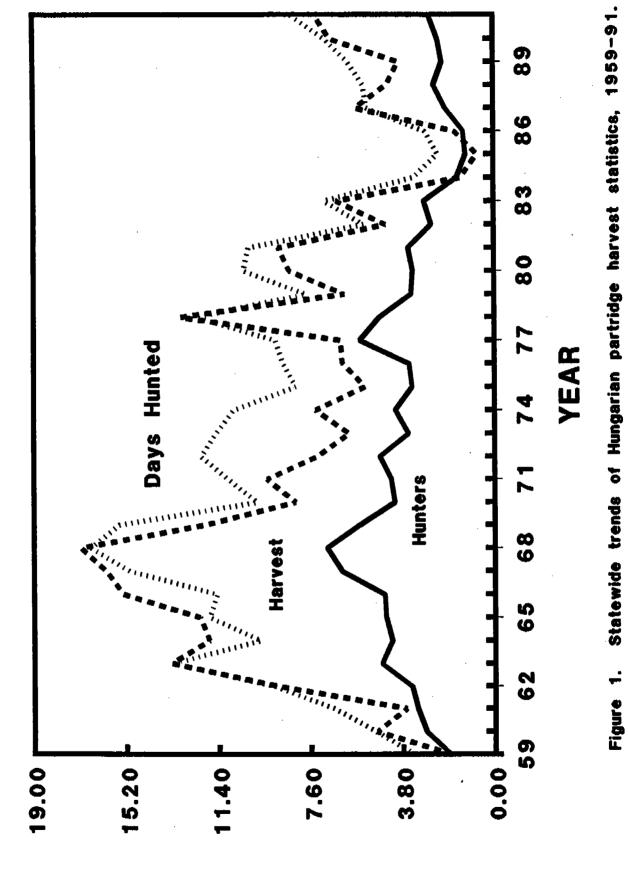
Long-term Hun harvest statistics are shown in Figures 1 and 2.

## Field Bag Checks

Results of the survey for 1991 are shown in Table 10. Hunter success trends determined via this method are shown in Table 11. Indices obtained for 1991 compared to 1990 and the previous 10-year (1981-90) average follow:

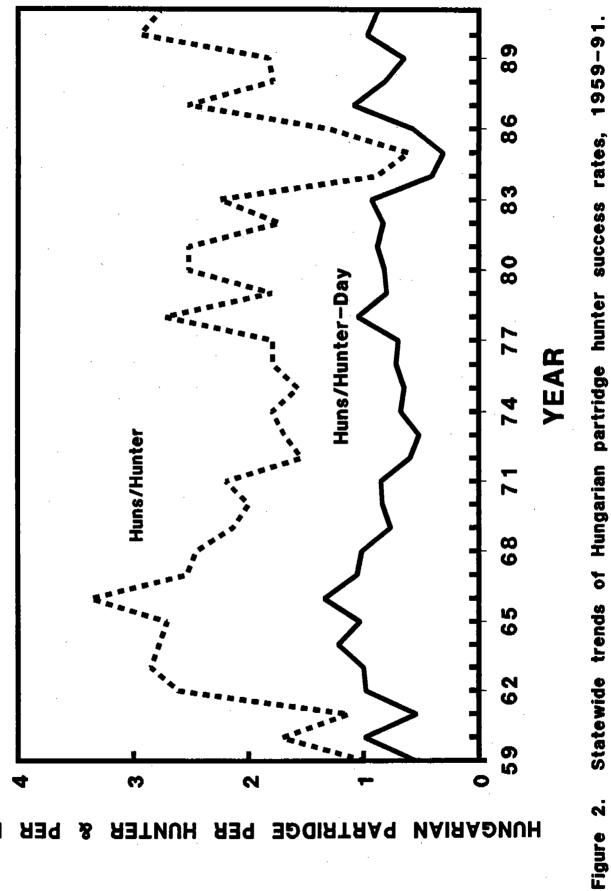
| · · · · · ·   |             |             | <u>hange from</u> |
|---|-------------|-------------|-------------------|
|   | <u>1991</u> | <u>1990</u> | <u>Average</u>    |
| Total hunters checked   | 11          | -27         | -92               |
| Total hours hunted  | 11          | -76         | -99               |
| Huns per hunter (complete hunts)                                    | 0.55        |             | -72               |
| Huns bagged per 100 hours   | 55          |             | +38               |
| Average hours per hunter-day<br>(complete hunts)                    | 1           | -67         | -78               |
| (complete hunts)<br>Hours hunted per Hun bagged<br>(complete hunts) | 1.83        |             | -85               |

Field bag check data submitted in 1991 was for Box Elder and Cache counties only. Many of these hunters are hunting sagegrouse, but Huns are often found in the same areas. Sample sizes were too small to derive meaningful conclusions.



(000, r X) JATOT

149



YAQ

100 Hr Birds/ 327 327 327 1 t 1 Vehicle Horse Walk Total ŧ 4 Hours of Effort -1 5 2 3 1 1 14 Ż 1 Young/ . Vehicle\_ 100 Adults Miles I 1 1 1 793 793 5 1 ł 1 Young Total 119 119 119 1 1 ł 1 1 NOT APPLICABLE Adalts NOT APPLICABLE NOT APPLICABLE Total 3 2 15 t 1 1 1 Adults w/o Young 1 1 4 Adults Young Mixed Young 61 <u>\$</u> 9 1 & Adults 3 12.50 Mean Brood 12.50 12.50 Table 1. Hungarian partridge summer inventory, 1991. I ł 1 1 Adults Young ŝ 8 2 1 Distinct Broods 80 œ 1 1 1 1 1 1 1 t œ **REGIONAL TOTALS REGIONAL TOTALS REGIONAL TOTALS REGIONAL TOTALS REGIONAL TOTALS** Northeastern Region Southeastern Region Region and STATE TOTALS Northern Region Southern Region County **Central Region** Washington Box Elder Salt Lake Duchesne San Juan Wasatch Carfield Sanpete Morgan Daggett Summit Weber leaver Wayne Carbon Emery Cache onele Millard Uintah Davis Sevier Grand Rich Juab Kane linte Vinte Utah 82

| dts, 1981-91.   |
|-----------------|
| 00 adults,      |
| e young per 1   |
| partridge )     |
| Hungarian       |
| Trend of        |
| <b>Fable 2.</b> |

| Conney         1981         1983         <   | Region and          |      |      |            |          | ,      | Year       |      |      |      |      |            | Average |
|---|---------------------|------|------|------------|----------|--------|------------|------|------|------|------|------------|---------|
| In Region         In Region <t< th=""><th>County</th><th>1981</th><th>1982</th><th>1983</th><th>1984</th><th>1985</th><th>1986</th><th>1987</th><th>1988</th><th>1989</th><th>1990</th><th>1661</th><th>1980-90</th></t<>   | County              | 1981 | 1982 | 1983       | 1984     | 1985   | 1986       | 1987 | 1988 | 1989 | 1990 | 1661       | 1980-90 |
| Inter         61         490         i         i         60         i   | Northern Region     |      |      |            |          |        |            |      |      |      |      |            |         |
| 1     2     2     2     2     40     43     2       1     2     2     2     2     2     2     2     2       1     2     30     2     2     2     2     2     2       NALI NOTAS     60     400     31     43     40     73     5       NALI NOTAS     60     400     -     -     2     -     2       Region     -     -     -     -     -     -     -     -       NALI NOTAS     60     400     -     -     -     -     -     -       NALI NOTAS     -     -     -     -     -     -     -     -     -       NAL NOTAS     -     -     -     -     -     -     -     -     -     -       NAL NOTAS     -     -     -     -     -     -     -     -     -       A     -     -     -     -     -     -     -     -     -     -       NAL NOTAS     -     -     -     -     -     -     -     -     -       A     -     -     -     -     - <t< td=""><td>Box Elder</td><td>671</td><td>409</td><td><b>400</b></td><td>- 1</td><td>ł</td><td>450</td><td>569.</td><td>307</td><td>1</td><td>396</td><td>561</td><td></td></t<>   | Box Elder           | 671  | 409  | <b>400</b> | - 1      | ł      | 450        | 569. | 307  | 1    | 396  | 561        |         |
| 700     300     -   | Cache               | 1    | ł    | 1          | 1        | ł      | ;          | I    | 400  | ł    | 433  | · .<br>1   |         |
| 70         90         1   | Davis               | I    | 1    | I          | :        | ł      | 1          | ;    | 1    | . 1  | 1    | 1          |         |
| 700         300         - <td>Morgan</td> <td>ı</td> <td>I</td> <td>1</td> <td>1</td> <td>ł</td> <td>I</td> <td></td> <td>1</td> <td>ł</td> <td>ı</td> <td>1</td> <td></td>   | Morgan              | ı    | I    | 1          | 1        | ł      | I          |      | 1    | ł    | ı    | 1          |         |
|   | Rich                | 700  | 300  | I          | :        | I      | 1          | ł    | 1    | 1    | ł    | ı          |         |
| MJ. TOTALS  | Summit              | r    | t    | ;          | ł        | ł      | ł          | I    | ł    | ł    | 1    | ı          |         |
| M.I. TOTALS         600         600         600         600         600         734         415         600         793           Region         -  | Weber               | I    | I    | ł          | ł        | ı      | 1          | ł    | ;    | I    | I    | 1          |         |
| Regina  | REGIONAL TOTALS     | 600  | 409  | 400        | .        | ,      | 450        | 569  | 324  | 425  | 604  | 793        | 447     |
| e     - <td>Central Region</td> <td></td>   | Central Region      |      |      |            |          |        |            |      |      |      |      |            |         |
| e     - <td>Juab</td> <td>ı</td> <td>I</td> <td>1</td> <td>:</td> <td>:</td> <td>;</td> <td>1</td> <td>ł</td> <td>ı</td> <td>1</td> <td>• <b>j</b></td> <td></td>   | Juab                | ı    | I    | 1          | :        | :      | ;          | 1    | ł    | ı    | 1    | • <b>j</b> |         |
| Image: Section of the section of t   | Salt Lake           | ı    | I    | 1          | 1        | ł      | ;          | ;    | ;    | ł    | ı    | :          |         |
| Image: image:   | Sanpele             | :    | 1    | I          | ;        | 1      | ı          | :    | 1    | I    | ł.   | I          |         |
| 0     - <td>Tooele</td> <td>1</td> <td>ł</td> <td>ł</td> <td>ı</td> <td>I</td> <td>1</td> <td>;</td> <td>1</td> <td>1</td> <td>;</td> <td>1</td> <td></td>  | Tooele              | 1    | ł    | ł          | ı        | I      | 1          | ;    | 1    | 1    | ;    | 1          |         |
| Internet         Interne         Internet         Internet  | Utah                | ¢    | 1    | 1          | ł        | ;      | <b>I</b> . | 1    | ;    | 1    | 1    | 1          |         |
| NAL TOTALS     0     -     -     400     -     -     -       I Region     -     -     -     400     -     -     -     -       I     NOT APPLABLE     NOT APPLABLE     NOT APPLABLE     -     -     -     -     -       gton     -     -     -     -     400     -     -     -     -       stor     -     -     -     -     -     -     -     -     -     -       stor     -     -     -     -     -     -     -     -     -     -       stor     -     -     -     -     -     -     -     -     -       stor     -     -     -     -     -     -     -     -     -       stor     -     -     -     -     -     -     -     -     -       NAL TOTALS     -     -     -     -     -     -     -     -     -     -       stor     -     -     -     -     -     -     -     -     -  | Wasatch             | 1    | 1    | 1          | 1        | I      | 400        | I    | 400  | 1    | ı    | 1          |         |
| n Region<br>Region<br>Son<br>MAL TOTALS<br>MAL TOT  | REGIONAL TOTALS     | -    |      | 1          | ,        | .      | 400        | ,    | 400  | 1    | 1    | :          | 267     |
| gou<br>gou<br>ML TOTALS<br>MAL TOTALS<br>MAL TOTALS<br>stern Region<br>ML TOTALS<br>tern Region<br>ML TOTALS<br>NAL | Southern Region     |      |      |            |          |        |            |      |      |      |      |            |         |
| l NOT APPL/ICABLE<br>gou<br>ML TOTALS<br>MAL TOTALS<br>MAL TOTALS<br>e NOT APPL/ICABLE<br>ML TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>60 409 400 40 50 328 42 40 793   | Beaver              |      |      |            |          |        |            |      |      |      |      |            |         |
| gon<br>gon<br>NAL TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>NOT APPLICABLE<br>NAL TOTALS<br>NOT APPLICABLE<br>NAL TOTALS<br>NOT APPLICABLE<br>NOT APPLICABLE<br>N   | Garfield            |      |      |            |          |        |            |      |      |      |      |            |         |
| glat<br>MAL TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>NAL TOTALS<br>Stern Region<br>NAL TOTALS<br>NAL     | Iron                |      |      |            |          |        |            |      |      |      |      |            |         |
| gou<br>NAL TOTALS<br>NAL TOTALS<br>stern Region<br>te NOT APPLICABLE<br>NAL TOTALS<br>Stern Region<br>Stern Region<br>an<br>AAL TOTALS<br>NAL TOTALS<br>NOT APPLICABLE<br>an<br>NAL TOTALS<br>00 409 400 - 400 569 328 425 400 793  | Kane                |      |      |            | NOT APPL | ICABLE |            |      |      |      |      |            |         |
| lgoa<br>NAL TOTALS<br>astern Region<br>t<br>atern Region<br>astern Region<br>In NAL TOTALS<br>In NAL TOTALS<br>In NAL TOTALS<br>an NAL TOTALS   | Millard             |      |      |            |          |        |            |      |      |      |      |            |         |
| lgou<br>NAL TOTALS<br>astern Region<br>t<br>astern Region<br>NAL TOTALS<br>NAL TOTALS<br>astern Region<br>astern Region<br>aste  | Piute               |      |      |            |          |        |            |      |      |      |      |            |         |
| tou<br>NAL TOTALS<br>Stern Region<br>te NOT APPLICABLE<br>NAL TOTALS<br>NAL TOTALS<br>Stern Region<br>NAL TOTALS<br>Stern Region<br>NOT APPLICABLE<br>NOT APPLICABLE<br>A 440 569 328 425 400 793<br>TOTALS 600 409 400 440 569 328 425 400 793   | Sevier              |      |      |            |          |        |            |      |      |      |      |            | •       |
| NAL TOTALS Stera Region NAL TOTALS NAL TOTALS NAL TOTALS Stera Region NAL TOTALS NOT APPLICABLE NOT APPLICABLE NAL TOTALS  | Washington          |      |      |            |          |        |            |      |      |      |      |            |         |
| NAL TOTALS Stern Region stern Region MAL TOTALS NAL TOTALS NAL TOTALS NAL TOTALS n NOT APPLICABLE n N NOT APPLICABLE n NOT APPLICABLE n NOT APPLICABLE n NOT APPLICABLE n NOT APPLICABLE n NOT APPLICABLE n NOT APPLICABLE n NOT APPLICABLE n NOT APPLICABLE n NOT APPLICABLE n NOT APPLICABLE n NOT APPLICABLE n NOT APPLICABLE n NOT APPLICABLE n N NOT APPLICABLE n N NOT APPLICABLE n N N N N N N N N N N N N N N N N N N   | Wayne               |      |      |            |          |        |            |      |      |      |      |            |         |
| stera Region<br>lee NOT APPLICABLE<br>NAL TOTALS NOT APPLICABLE<br>Intern Region<br>NOT APPLICABLE<br>Intern Region 10 440 569 328 42 400 793   | REGIONAL TOTALS     |      |      |            |          |        |            |      |      |      |      |            |         |
| ue NOT APPLICABLE<br>NAL TOTALS NOT APPLICABLE<br>Istern Region NOT APPLICABLE<br>un NAL TOTALS 600 409 400 440 569 328 425 400 793   | Northeastern Region |      |      |            |          |        |            |      |      |      |      |            |         |
| ue NOT APPLICABLE<br>NAL TOTALS<br>Istern Region<br>Istern Region<br>In NOT APPLICABLE<br>In NAL TOTALS 600 409 400 440 569 328 425 400 793   | Daggett             |      |      |            |          |        |            |      |      |      |      |            |         |
| NAL TOTALS NAL TOTALS NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NAL TOTALS 600 409 400 440 569 328 425 400 793   | Duchesne            |      |      |            | NOT APPL | ICABLE |            |      |      |      |      |            |         |
| NAL TOTALS Istern Region In   | Uintah              |      |      |            |          |        |            |      |      |      |      |            |         |
| stern Region<br>NOT APPLICABLE<br>MAL TOTALS 600 409 400 440 569 328 425 400 793  | REGIONAL TOTALS     |      |      |            |          |        |            |      |      |      |      |            |         |
| un<br>NAL TOTALS 600 409 400 440 569 328 425 400 793  | Southeastern Region |      |      |            |          |        |            |      |      |      |      |            | ľ       |
| un<br>NAL TOTALS 600 409 400 440 569 328 425 400 793  | Carbon              |      |      |            |          |        |            |      |      |      |      |            |         |
| ALS<br>600 409 400 440 569 328 425 400 793  | Emery               |      |      |            | NOT APPL | ICABLE |            |      |      |      |      |            |         |
| ALS<br>600 409 400 440 569 328 425 400 793  | Grand               |      |      |            |          |        |            |      |      |      |      |            |         |
| ALS 600 409 400 440 569 328 425 400 793   | San Juan            |      |      |            |          |        |            |      |      |      |      |            |         |
| 600 409 400 440 569 328 425 400 793   | REGIONAL TOTALS     |      |      |            |          |        |            |      |      |      |      |            |         |
|   | STATE TOTALS        | 600  | 409  | 400        | 1        | ı      | 440        | 569  | 328  | 425  | 400  | 193        | 446     |
|   |                     |      |      |            |          |        |            |      |      |      | -    |            |         |

| Region and             |       |       | Region and |                | I             | Year  |       |      |      |          |       | Average |
|------------------------|-------|-------|------------|----------------|---------------|-------|-------|------|------|----------|-------|---------|
| County                 | 1981  | 1982  | 1983       | 1984           | 1985          | 1986  | 1987  | 1988 | 1989 | 1990     | 1661  | 1981-90 |
| Northern Region        |       |       |            |                |               |       |       |      |      |          |       |         |
| Box Elder              | 12.00 | 11.25 | 10.67      | 1              | 1             | 18.00 | 11.88 | 8.60 | 8.50 | 8.25     | 12.50 |         |
| Cache                  | 1     | ł     | :          | ı              | ı             | ł     | I     | :    | 1    | 6.00     | 1     |         |
| Davis                  | I     | 1     | ı          | ł              | 1             | 1     | ł     | ;    | :    | ł        | ł     |         |
| Morgan                 | 1     | 1     | 1          | 1              | I             | 1     | 1     | I    | 1    | 1        | I     |         |
| Rich                   | 6.0   | I     | I          | ł              | :             | 1     | ı     | 1    | 1    | <b>I</b> | ı     |         |
| Summit                 | 1     | 1     | 1          | 1              | 1             | I     | 1     | 1    | 1    | ı        | 1     |         |
| Weber                  | 1     | I     | 1          | 1              | I             | ı     | 1     | ,    | 1    | 1        | 1     |         |
| REGIONAL TOTALS        | 10.80 | 11.25 | 10.67      | 1              | ł             | 18.00 | 11.88 | 8.60 | 8.50 | 8.90     | 12.50 | 11.08   |
| <b>Central Region</b>  |       |       |            |                |               |       |       |      |      |          |       |         |
| Jush                   | 1     | ı     | 1          | ł              | 1             | ı     | ł     | 1    | 1    | 1        | 1     |         |
| Salt Lake              | 1     | 1     | t          | 1              | ;             | t     | 1     | 1    | :    | I        | ı     |         |
| Sanpete                | I     | 1     | 1          | :              | ı             | 1     | 1     | I    | 1    | ł        | I     |         |
| Tonele                 | :     | 1     | 1          | 1              | ł             | 1     | ı     | ı    | ł    | 1        | 1     |         |
| Utah                   | 1     | 1     | 1          | 1              | 1             | 1.    | ı     | 1    | ł    | I        | ı     |         |
| Wasatch                | 1     | 1     | 1          | I              | 1             | 4.00  | 1     | 6.4  | ,    | •        | 1     |         |
| REGIONAL TOTALS        |       | 1     | 1          | 1              | 1             | 4.00  | I     | 4.00 | 1    | 1        | I     | 4.8     |
| Beaver<br>Garfield     |       |       |            |                |               |       |       |      |      |          |       |         |
| lroa                   |       |       |            |                |               |       |       |      |      |          |       | •       |
| Kane                   |       |       |            | NOT APPLICABLE | ICABLE        |       |       |      |      |          |       |         |
| Millard                |       |       |            |                |               |       |       |      |      |          |       |         |
| Pinte                  |       |       |            |                |               |       |       |      |      |          |       |         |
| Sevier                 |       |       |            |                |               |       |       |      |      |          |       |         |
| Washington             |       |       |            |                |               |       |       |      |      |          |       |         |
| Wayne                  |       |       |            |                |               |       |       |      |      |          |       |         |
| REGIONAL TOTALS        |       |       |            |                |               |       |       |      |      |          |       |         |
| Northeastern Region    |       |       |            |                |               |       |       |      |      |          |       |         |
| Daggett                |       |       |            |                |               |       |       |      |      |          |       |         |
| Duchesne               |       |       |            | NOT APPLICABLE | ICABLE        |       |       |      |      |          |       |         |
| Uintah                 |       |       |            |                |               |       |       |      |      |          |       |         |
| REGIONAL TOTALS        |       |       |            |                |               |       |       |      |      |          |       |         |
| Southeastern Region    |       |       |            |                |               |       |       |      |      |          |       |         |
| Carbon                 |       |       |            |                |               |       |       |      |      |          |       |         |
| Emery                  |       |       |            | NOT APPLICABLE | <b>ICABLE</b> |       |       |      |      |          |       |         |
| Grand                  |       |       |            |                |               |       |       |      |      |          |       |         |
| San Juan               |       |       |            |                |               |       |       |      |      |          |       |         |
| <b>REGIONAL TOTALS</b> |       |       |            |                |               |       |       |      |      |          |       |         |
|                        | 10.00 | 11 16 | 10.67      |                |               |       | 11 88 | 7 81 | 8.50 | 6.6      | 12.50 |         |

| County<br>Northera Region<br>Box Elder | 1981 | 1003 |      |                |        |      |      |      |      |      |      | - P     |
|--|------|------|------|----------------|--------|------|------|------|------|------|------|---------|
| Northera Region<br>Box Elder           |      | 1001 | 1983 |                | 1985   | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1981-90 |
| Box Elder                              |      |      | -    |                |        |      |      |      |      |      |      |         |
| -                                      | 570  | 144  | 67   | 1              | 0      | 96   | 561  | 438  | ;    | 529  | 327  |         |
| Cache                                  | t    | 1    | 1    | ł              | ł      | 1    |      | ı    | 88   | 538  | 1    |         |
| Davis                                  | ı    | 1    | ł    | t              | 1      | 1    | ţ.   | 1    | ł    | I    | ł    |         |
| Morgan                                 | I    | :    | I    | ŀ.             | ł      | ł    | I    | 1    | t    | I    | I    |         |
| Rich                                   | 1    | ł    | I    | :              | 1      | ł    | I    | 1    | 1    | 1    | I    |         |
| Summit                                 | ł    | :    | ı    | 1              | 1      | ł    | 1    | 1    | 1    | ł    | 1    |         |
| Weber                                  | 1    | 1    | 1    | 1              | ł      | 1    | ł    | I    | I    | ł    | ł    |         |
| REGIONAL TOTALS                        | 639  | 144  | 67   | 1              | 0      | 50   | 435  | 240  | 88   | 517  | 327  | 242     |
| Central Region                         |      |      |      |                |        |      |      |      |      |      |      |         |
| Juab                                   | 1    | ł    | 1    | :              | I      | 1    | ł    | • 1  | 1    | 1    | 1    |         |
| Salt Lake                              | 1    | I    | ł    | 1              | 1      | 1    | I    | ;    | I    | I    | 1    |         |
| Sanpete                                | 1    | I    | I    | 1              | t      | 1    | ł    | ł    | 1    | 1    | 1    |         |
| Tonele                                 | I    | :    | 1    | ł              | ł      | 1    | ł    | 1    | ł    | ł    | 1    |         |
| Utah                                   | ı    | I    | ı    | 1              | ;      | 1    | ;    | I    | ł    | ł    | I    |         |
| Wasatch                                | 1    | I    | 1    | :              | ł      | 500  | 1    | 500  | 1    | 3    | 1    |         |
| REGIONAL TOTALS                        | 1    | 1    | 1    | 1              | 1      | 500  | 1    | 500  | 1    | ;    | 1    | 500     |
| Southern Region                        |      |      |      |                |        |      |      |      |      |      |      |         |
| Beaver                                 |      |      |      |                |        |      |      |      |      |      |      |         |
| Garfield                               |      |      |      |                |        |      |      |      |      |      |      |         |
| Iron                                   |      |      |      |                |        |      |      |      |      |      |      |         |
| Kane                                   |      |      |      | NOT APPLICABLE | ICABLE |      |      |      |      |      |      |         |
| Millard                                |      |      |      |                |        |      |      |      |      |      |      |         |
| Piute                                  |      |      |      |                |        |      |      |      |      |      |      |         |
| Sevier                                 |      |      |      |                |        |      |      |      |      |      |      |         |
| Washingtou                             |      |      |      |                |        |      |      | ·    |      |      |      |         |
| Wayne                                  |      |      |      |                |        |      |      |      |      |      |      |         |
| REGIONAL TOTALS                        |      |      |      |                |        |      |      |      |      |      |      |         |
| Northeastern Region                    |      |      |      |                |        |      |      |      |      |      |      |         |
| Daggett                                |      |      |      |                |        |      |      |      |      |      |      |         |
| Duchesne                               |      |      |      | NOT APPLICABLE | ICABLE |      | ,    |      |      |      |      |         |
| Uintah                                 |      |      |      |                |        |      |      |      |      |      |      |         |
| REGIONAL TOTALS                        |      |      |      |                |        |      |      |      |      |      |      |         |
| Southeastern Region                    |      |      |      |                |        |      |      |      |      |      |      |         |
| Carbon                                 |      |      |      |                |        |      |      |      |      |      |      |         |
| Emery                                  |      |      |      | NOT APPLICABLE | ICABLE |      |      |      |      |      |      |         |
| Grand                                  |      |      |      |                |        |      |      |      |      |      |      |         |
| San Juan                               |      |      |      |                |        |      |      |      |      |      |      |         |
| REGIONAL TOTALS                        |      |      |      |                |        |      |      |      |      |      |      |         |
| STATE TOTALS                           | 565  | 144  | 61   | 1              | 0      | 60   | 435  | 248  | 88   | 517  | 327  | 255     |

Table 4. Trend of Hungarian partridge observed per 100 hours, 1981-91.

| EGION AND<br>COUNTY | SAMPLE<br>SIZE** | HUNTER-DAYS<br>AFIELD | BIRDS<br>BAGGED | BIRDS PER<br>HUNTER-DAY | & OF<br>PRESSURE | % OF<br>HARVEST |
|---------------------|------------------|-----------------------|-----------------|-------------------------|------------------|-----------------|
| ORTHERN REGION      |                  |                       |                 |                         |                  |                 |
| BOX ELDER           | 100              | 5,358                 | 5,445           | 1.02                    | 64.04            | 73.82           |
| CACHE               | 34               | 1,443                 | 1,235           | 0.86                    | 17.26            | 16.75           |
| DAVIS               | 1                | 34                    | 0               | 0.00                    | 0.42             | 0.00            |
| MORGAN              | 2                | 34                    | 0               | 0.00                    | 0.42             | 0.00            |
| RICH                | 10               | 347                   | 469             | 1.35                    | 4.16             | 6.37            |
| SUMMIT              | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| WEBER               | 5                | 260                   | 104             | 0.40                    | 3.12             | 1.42            |
| EGIONAL TOTALS      | 152              | 7,480                 | 7,254           | 0.97                    | 89.40            | 98.35           |
| ENTRAL REGION       |                  |                       | -               |                         |                  |                 |
| JUAB**              | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| SALT LAKE**         | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| SANPETE**           | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| TOOELE              | 4                | 765                   | 17              | 0.02                    | 9.15             | 0.24            |
| UTAH**              | . <b>1</b>       | 17                    | 0               | 0.00                    | 0.21             | 0.00            |
| WASATCH**           | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| REGIONAL TOTALS     | 5                | 782                   | 17              | 0.02                    | 9.36             | 0.24            |
| SOUTHERN REGION     |                  |                       |                 |                         |                  |                 |
| BEAVER**            | 1                | 17                    | 0               | 0.00                    | 0.21             | 0.00            |
| GARFIELD**          | Ö                | 0                     | 0               | 0.00                    | 0400             | 0.00            |
| IRON**              | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| KANE * *            | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| MILLARD**           | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| PIUTE**             | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| SEVIER**            | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| WASHINGTON**        | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| WAYNE**             | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| REGIONAL TOTALS     | 1                | 17                    | 0               | 0.00                    | 0.21             | 0.00            |
| NORTHEASTERN REG    |                  |                       |                 | 2.2.2                   |                  |                 |
| DAGGETT**           | 2                | 69                    | 86              | 1.25                    | 0.83             | 1.18            |
| DUCHESNE**          | 1                | 17                    | 17              | 1.00                    | 0.21             | 0.24            |
| UINTAH**            | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| REGIONAL TOTALS     | 3                | 86                    | 104             | 1.20                    | 1.04             | 1.42            |
| SOUTHEASTERN REG    | -                |                       | _               |                         | ·                |                 |
| CARBON**            | o                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| EMERY * *           | 0                | 0                     | . 0             | 0.00                    | 0.00             | 0.00            |
| GRAND * *           | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| SAN JUAN**          | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| REGIONAL TOTALS     | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| UNKNOWN             | 0                | 0                     | 0               | 0.00                    | 0.00             | 0.00            |
| STATE TOTALS        | 161              | 8,367                 | 7,376           | 0.88                    | 100.00           | 100.00          |

Table 5. Summary of Hungarian partridge hunter success and distribution of harvest

.

\* Total hunter-trips from questionnaire returns. \*\* Closed to Hungarian partridge hunting in 1991.

| Region and            |      |      |      |      | Year  |       |       |          |
|-----------------------|------|------|------|------|-------|-------|-------|----------|
| County                | 1984 | 1985 | 1986 | 1987 | 1988  | 1989  | 1990  | 1991     |
| Northern Region       |      |      |      |      |       |       |       |          |
| Box Elder             | 0.44 | 0.25 | 0.60 | 1.28 | 0.95  | .0.62 | 1.11  | 1.02     |
| Cache                 | 0.15 | 2.00 | 0.00 | 1.05 | 0.50  | 0.94  | 0.86  | 0.86     |
| Davis                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 2.67  | 0.00  | 0.00     |
| Morgan                | 0.00 | 0.00 | 0.00 | 0.67 | 0.00  | 1.33  | 0.00  | 0.00     |
| Rich                  | 0.00 | 0.00 | 0.00 | 1.50 | 0.00  | 0.00  | 2.13  | 1.35     |
| Summit                | 0.00 | 0.00 | 0.00 | 2.00 | 3.00  | 0.00  | 0.00  | 0.00     |
| Weber                 | 1.00 | 0.00 | 0.00 | 1.25 | 1.17  | 1.00  | 1.00  | 0.40     |
| REGIONAL TOTALS       | 0.41 | 0.26 | 0.59 | 1.23 | 0.89  | 0.67  | 1.02  | 0.97     |
| <u>Central Region</u> |      |      |      |      |       |       |       |          |
| Juab                  | 0.00 | 0.00 | 0.00 | 0.30 | 0.00* | 0.00* | 0.00* | 0.00     |
| Salt Lake             | 0.50 | 0.50 | 0.00 | 0.00 | 0.09* | 0.67* | 0.00* | 0.00     |
| Sanpete               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00* | 0.00* | 0.00* | 0.00     |
| Tooele                | 0.00 | 0.46 | 0.00 | 0.00 | 0.33  | 0.47  | 0.46  | 0.02     |
| Utah                  | 2.00 | 0.00 | 0.00 | 0.33 | 0.31* | 0.00* | 0.00* | 0.00     |
| Wasatch               | 1.00 | 1.50 | 0.00 | 0.00 | 0.00* | 0.00* | 0.00* | 0.00     |
| REGIONAL TOTALS       | 0.55 | 0.48 | 0.00 | 0.20 | 0.24  | 0.41  | 0.40  | 0.02     |
| Southern Region       |      |      |      |      |       |       |       |          |
| Beaver                | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00* | 0.00* | 0.00     |
| Garfield              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00* | 0.00* | 0.00     |
| Iron                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00* | 0.00* | 0.00     |
| Kane                  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00* | 0.00* | 0.00     |
| Millard               | 0.00 | 0.00 | 2.00 | 0.00 | 0.00* | 0.00* | 0.00* | 0.00     |
| Piute                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00* | 0.00* | 0.00     |
| Sevier                | 0.00 | 0.00 | 0.20 | 2.00 | 0.00* | 0.00* | 3.00* | 0.00     |
| Washington            | 0.00 | 0.00 | 0.00 | 0.00 | 2.14* | 0.00* | 0.00* | 0.00     |
| Wasatch               | 1.00 | 0.00 | 0.00 | 0.00 | 0.00* | 0.00* | 0.00* | 0.00     |
| REGIONAL TOTALS       | 0.55 | 0.00 | 0.78 | 1.33 | 2.14  | 0.00  | 0.60  | 0.00     |
| Northeastern Regi     |      |      |      |      |       |       |       |          |
| Daggett               | 0.00 | 1.00 | 0.00 | 0.00 | 0.00* | 0.00* | 0.00* | 1.25     |
| Duchesne              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00* | 0.00* | 1.00     |
| Uintah                | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.00* | 0.00* | 0.00     |
| REGIONAL TOTALS       | 0.00 | 0.00 | 0.50 | 0.00 | 0.00  | 0.00  | 0.00  | 1.20     |
| Southeastern Regio    |      |      | 0.00 | 0.00 |       | 0.00  |       | <u> </u> |
|                       | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00* | 0.00* | 0.00     |
| Carbon                | 0.00 | 0.00 | 0.00 | 0.00 | 1.00* | 0.00* | 0.00* | 0.00     |
| Emery                 |      | 0.00 | 0.00 | 0.00 | 0.00  | 0.00* | 0.00* | 0.00     |
| Grand                 | 0.00 |      |      |      |       |       |       |          |
| San Juan              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00* | 1.50* | 0.00* | 0.00     |
| REGIONAL TOTALS       | 0.00 | 0.00 | 0.00 | 0.00 | 1.00  | 1.50  | 0.00  | 0.00     |
| Unknown Counties      | 0.00 | 0.00 | 0.00 | 0.30 | 0.00  | 0.00  | 0.00  | 0.00     |
| STATE TOTALS          | 0.41 | 0.31 | 0.57 | 1.09 | 0.82  | 0.65  | 0.97  | 0.88     |

Table 6. Summary of Hungarian partridge bagged per hunter-day by region and county, 1984-91.

\*Closed Season

| Region and             |        |        |                                       |        | Year                |        |              | <u> </u>     |
|------------------------|--------|--------|---------------------------------------|--------|---------------------|--------|--------------|--------------|
| County                 | 1984   | 1985   | 1986                                  | 1987   | <u>    1988    </u> | 1989   | 1990         | <u> 1991</u> |
| <u>Northern Region</u> |        |        |                                       |        |                     |        |              |              |
| Box Elder              | 79.04  | 60.34  | 91.14                                 | 80.25  | 78.86               | 76.20  | 60.80        | 73.82        |
| Cache                  | 2.94   | 5.94   | 0.00                                  | 9.87   | 6.03                | 8.47   | 31.01        | 16.75        |
| Davis                  | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00                | 4.23   | 0.00         | 0.00         |
| Morgan                 | 0.00   | 0.00   | 0.00                                  | 0.85   | 0.00                | 2.12   | 0.00         | 0.00         |
| Rich                   | 0.00   | 0.00   | 0.00                                  | 1.28   | 0.00                | 0.00   | 5.17         | 6.37         |
| Summit                 | 0.00   | 0.00   | 0.00                                  | 0.85   | 2.26                | 0.00   | 0.00         | 0.00         |
| Weber                  | 8.90   | 0.00   | 0.00                                  | 2.14   | 2.64                | 2.12   | 0.30         | 1.42         |
| REGIONAL TOTALS        | 91.03  | 66.62  | 91.14                                 | 95.27  | 89.81               | 93.13  | 97.28        | 98.35        |
| Central Region         |        |        |                                       |        |                     |        |              |              |
| Juab                   | 0.00   | 0.00   | 0.00                                  | 1.28   | 0.00*               | 0.00*  | 0.00*        | 0.00*        |
| Salt Lake              | 1.47   | 2.97   | 0.00                                  | 0.00   | 0.37*               | 1.06*  | 0.00*        | 0.00*        |
| Sanpete                | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00*               | 0.00*  | 0.00*        | 0.00*        |
| Tooele                 | 0.00   | 18.10  | 0.00                                  | 0.00   | 1.88                | 3.70   | 1.82         | 0.24         |
| Utah                   | 5.96   | 0.00   | 0.00                                  | 0.42   | 1.88*               | 0.00*  | 0.00*        | 0.00         |
| Wasatch                | 1.47   | 9.05   | 0.00                                  | 0.00   | 0.00*               | 0.00*  | 0.00*        | 0.00         |
| REGIONAL TOTALS        | 8.90   | 30.27  | 0.00                                  | 1.71   | 4.15                | 4.76   | 1.82         | 0.24         |
| Southern Region        |        |        | · · · · · · · · · · · · · · · · · · · |        |                     |        |              |              |
| Beaver                 | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00                | 0.00*  | 0.00*        | 0.00*        |
| Garfield               | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00                | 0.00*  | 0.00*        |              |
| Iron                   | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00                | 0.00*  | 0.00*        |              |
| Kane                   | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00                | 0.00*  | 0.00*        |              |
| Millard                | 0.00   | 0.00   | 7.59                                  | 0.00   | 0.00*               | 0.00*  | 0.00*        |              |
| Piute                  | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00                | 0.00*  | 0.00*        |              |
| Sevier                 | 0.00   | 0.00   | 1.27                                  | 1.71   | 0.00*               | 0.00*  | 0.91*        | 0.00*        |
| Washington             | 0.00   | 0.00   | 0.00                                  | ō.oō   | 5.66*               | 0.00*  | 0.00*        |              |
| Wayne                  | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00*               | 0.00*  | 0.00*        | 0.00,        |
| REGIONAL TOTALS        | 0.00   | 0.00   | 8.86                                  | 1.71   | 5.66                | 0.00*  | 0.91         | 0.00         |
| Northeastern Reg       |        |        | 0.00                                  |        | 2.00                | 0.00   | <u>V•_24</u> | 0.00         |
| Daggett                | 0.00   | 2.97   | 0.00                                  | 0.00   | 0.00*               | 0.00*  | 0.00*        | 1.18         |
| Duchesne               | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00*               | 0.00*  | 0.00*        |              |
| Uintah                 | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00                | 0.53*  | 0.00*        | 0.001        |
| REGIONAL TOTALS        | 0.00   | 2.97   | 0.00                                  | 0.00   | 0.00                | 0.53   | 0.00         | 0.00         |
| Southeastern Reg       |        | 2.71   | 0                                     | 0.00   | 0.00                | 0.33   | _0.00        | 0.00         |
| Carbon                 | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00                | 0.00*  | 0.00*        | 0 00-        |
| Emery                  | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00                | 0.00*  | 0.00*        | +            |
| Grand                  | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.37                | 0.00*  | 0.00*        |              |
| San Juan               | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.00                |        | -            | +            |
| REGIONAL TOTALS        | 0.00   | 0.00   | 0.00                                  |        |                     | 1.59*  | 0.00*        |              |
| REGIONAL TOTALS        | 0.00   | 0.00   | 0.00                                  | 0.00   | 0.37                | 1.59   | 0.00         | 0.00         |
| Unknown counties       | 0.00   | 0.00   | 0.00                                  | 1.28   | 0.00                | 0.00   | 0.00         | 0.00         |
| STATE TOTALS           | 100.00 | 100.00 | 100.00                                | 100.00 | 100.00              | 100.00 | 100.00       | 100.00       |

Table 7. Percentage distribution of Hungarian partridge harvest by region and county, 1984-91.

| 1985   |        |               | Year         |  |              |               |
|--------|--------|---------------|--------------|--|--------------|---------------|
| T 200  | 1986   | 1987          | 1988         | 1989   | 1990         | 1991          |
|        |        |               |              |  |              |               |
| 74.98  | 87.68  | 68.22         | 68.42        | 80.42  | 53.10        | 64.04         |
| 0.91   | 0.72   | 10.28         | 9.90         | 5.84   | 34.81        | 17.26         |
| 0.00   | 0.00   | 1.40          | 1.23         | 1.03   | 0.00         | 0.42          |
| 1.82   | 0.00   | 1.40          | 0.30         | 1.03   | 2.36         | 0.42          |
| 0.00   | 0.72   | 0.93          | 0.00         | 0.69   | 2.36         | 4.16          |
| 0.00   | 0.00   | 0.46          | 0.61         | 0.00   | 0.00         | 0.00          |
| 0.00   | 0.00   | 1.86          | 1.85         | 1.37   | 0.30         | 3.12          |
| 77.79  | 89.13  | 84.57         | 82.36        | 90.39  | 92.93        | 89.40         |
|        | 07.13  | 04.3/         | 02.30        |  |              | 09.40         |
| 0 00   | 0.72   |               | 0.00+        | 0.00+  | A 50+        | 0 00+         |
| 0.00   |        | 4.67          | 0.00*        | 0.00*  | 0.59*        | 0.00*         |
| 1.82   | 0.00   | 0.00          | 3.40*        | 1.03*  | 0.00*        | 0.00*         |
| 0.91   | 0.72   | 0.46          | 0.00*        | 0.00*  | 0.00*        | 0.00*         |
| 12.01  | 0.72   | 2.80          | 4.64         | 5.16   | 3.84         | 9.15*         |
| 2.77   | 1.44   | 1.40          | 4.95*        | 0.34*  | 0.00*        | 0.21*         |
| 1,82   | 0.00   | 0.00          | <u>1.23*</u> | 1.03*  | 0.00*        | <u>0.00</u> * |
| 19.45  | 3.62   | 9.34          | 14.24        | 7.56   | 4.43         | 9.36          |
|        |        |               |              |  |              |               |
| 0.00   | 0.72   | 0.00          | 0.00*        | 0.00*  | 1.18*        | 0.21*         |
| 0.00   | 0.00   | 0.00          | 0.00*        | 0.00*  | 0.00*        | 0.00*         |
| 0.00   | 0.00   | 0.00          | 0.00*        | 0.00*  | 0.00*        | 0.00*         |
| 0.00   | 0.00   | 0.00          | 0.00*        | 0.00*  | 0.00*        | 0.00*         |
| 0.00   | 2.17   | 0.00          | 0.00*        | 0.00*  | 0.00*        | 0.00*         |
| 0.00   | 0.00   | 0.00          | 0.00*        | 0.00*  | 0.00*        | 0.00*         |
| 0.00   | 3.62   | 0.93          | 0.00*        | 0.69*  | 0.30*        | 0.00*         |
| 0.00   | 0.00   | 0.46          | 2.16*        | 0.00*  | 0.00*        | 0.00*         |
| 0.00   | 0.00   | 0.00          | 0.00*        | 0.00*  | 0.00*        | 0.00*         |
| 0.00   | 6.52   | 1.39          | 2.15         | 0.69   | 1.48         | 0.21          |
| 0.00   | 0.52   | <u>****//</u> |              | 0.02   |              |               |
| 0.91   | 0.00   | 0.00          | 0.00*        | 0.00*  | 0.00*        | 0.83*         |
| 0.00   | 0.00   | 0.00          | 0.30*        | 0.00*  | 0.00*        | 0.21*         |
| 0.00   | 0.00   | 0.00          | 0.00*        |  | 0.00*        |               |
|        | 0.72   | 0.00          |              | 0.34*  |              | 0.00*         |
| 1.82   | 0.72   | 0.00          | 0.29         | 0.34   | 0.00*        | 1.04          |
| ~ ~~   | 0.00   | A AA          | 0.014        | 0.04*  | <b>0</b> 00. | 0 00          |
| 0.00   | 0.00   | 0.00          | 0.61*        | 0.34*  | 0.00*        | 0.00*         |
| 0.00   | 0.00   | 0.00          | 0.30*        | 0.00*  | 1.18*        | 0.00*         |
| 0.91   | 0.00   | 0.00          | 0.00*        | 0.00*  | 0.00*        | 0.00*         |
| 0.00   | 0.00   | 0.00          | 0.00*        | 0.69*  | 0.00         | 0.00*         |
| 0.91   | 0.00   | 0.00          | 0.92         | 1.03   | 1.18         | 0.00          |
| 0.00   | 0.00   | 4.67          | 0.00         | 0.00   | 0.00         | 0.00          |
| 100.00 | 100.00 | 100.00        | 100.00       | 100.00   | 100.00       | 100.00        |
|        |        |               |              | 0.00 0.00 4.67 0.00<br>100.00 100.00 100.00 100.00 |              |               |

Table 8. Percentage distribution of Hungarian partridge hunting pressure by region and county, 1984-91.

\*Closed Season

|               | Total     | Total   | Hunter-Days | Huns Per   | Huns Per |
|---------------|-----------|---------|-------------|------------|----------|
| Уеаг          | Hunters   | Harvest | Afield      | Hunter-Day | Hunter   |
| 1955          | , <b></b> | -       | -           | -          | 0.39     |
| 1956          | -         | · _     |             | -          | 0.89     |
| 1957          | -         | -       | -           | -          | 0.45     |
| 1958          | -         |         | -           |            | 1.34     |
| <b>19</b> 59  | 1,846     | 1,820   | 3,354       | 0.54       | 0.99     |
| 1960          | 2,847     | 4,877   | 4,929       | 0.99       | 1.71     |
| 1961          | 3,205     | 3,648   | 6,645       | 0.54       | 1.13     |
| 1962          | 3,440     | 8,970   | 9,153       | 0.98       | 2.61     |
| 1963          | 4,676     | 13,343  | 13,291      | 1.00       | 2.85     |
| 1964          | 4,249     | 11,812  | 9,688       | 1.22       | 2.78     |
| 965           | 4,498     | 12,183  | 11,798      | 1.03       | 2.71     |
| 1966          | 4,549     | 15,348  | 11,473      | 1.34       | 3.37     |
| 1967          | 6,321     | 16,049  | 15,105      | 1.06       | 2.54     |
| 968           | 6,935     | 17,089  | 16,674      | 1.02       | 2.46     |
| .969          | 5,591     | 11,966  | 15,515      | 0.77       | 2.14     |
| 970           | 4,128     | 8,236   | 9,818       | 0.84       | 2.00     |
| 971           | 4,276     | 9,407   | 11,011      | 0.85       | 2.20     |
| 972           | 4,754     | 7,335   | 12,135      | 0.60       | 1.54     |
| 973           | 3,566     | 6,014   | 11,516      | 0.52       | 1.69     |
| 974           | 4,103     | 7,389   | 10,789      | 0.68       | 1.80     |
| 975           | 3,409     | 5,358   | 8,216       | 0.65       | 1.57     |
| 976           | 3,517     | 6,287   | 8,753       | 0.72       | 1.79     |
| 977           | 5,557     | 6,360   | 9,058       | 0.70       | 1.79     |
| 978           | 4,743     | 12,969  | 12,328      | 1.05       | 2.73     |
| 979           | 3,435     | 6,200   | 7,787       | 0.80       | 1.80     |
| 980           | 3,359     | 8,466   | 10,366      | 0.82       | 2.52     |
| 981           | 3,545     | 8,916   | 10,147      | 0.88       | 2.52     |
| 982           | 2,590     | 4,475   | 5,379       | 0.83       | 1.73     |
| 983           | 2,889     | 6,506   | 6,998       | 0.93       | 2.25     |
| 984           | 1,523     | 1,360   | 3,309       | 0.41       | 0.89     |
| 985           | 1,157     | 707     | 2,314       | 0.31       | 0.61     |
| 986           | 1,257     | 1,627   | 2,843       | 0.57       | 1.30     |
| <b>98</b> 7   | 2,010     | 5,711   | 5,246       | 1.09       | 2.53     |
| 988           | 2,471     | 4,424   | 5,392       | 0.82       | 1.79     |
| 989           | 2,136     | 3,920   | 6,035       | 0.65       | 1.83     |
| 990           | 2,305     | 6,770   | 6,976       | 0.97       | 2,94     |
| 991           | 2,662     | 7,376   | 8,367       | 0.88       | 2.77     |
| <b>Totals</b> |           |         |             |            |          |
| 1959-91)      | 117,549   | 252,918 | 292,408     | -          | _        |
| verages       |           |         |             | <b>_</b>   |          |
| (959-90)      | 3,590     | 7,673   | 8,876       | 0.82       | 2.03     |

Table 9. Statewide summary of Hungarian partridge harvest statistics, 1955-91.

Table 10. Hungarian partridge field bag check summary, 1991.

|                        |         |            | All Hunts |                |                |          |         | <b>Complete Hunts</b> | lumts |        |        |
|------------------------|---------|------------|-----------|----------------|----------------|----------|---------|-----------------------|-------|--------|--------|
| Reeion and             | Total   | Total      | Total     | Total          | Birds/         | Complete | Total   | Total                 | Total | Birds/ | Birds/ |
|                        | Parties | Hunters    | Hours     | Birds          | 100 Hr         | Hunts    | Hunters | Hours                 | Birds | 100 Hr | Hunter |
|                        |         |            |           |                |                |          |         |                       |       |        |        |
| Box Etder              | 31      | 88         | 91        | <b>4</b>       | 51             | 9        | 11      | 11                    | Ŷ     | 22     | 0.55   |
| Cache                  | 1       | 1          | 1         | 1              | 1              | 1        | 1       | ł                     | :     | I      | I      |
| Davis                  | I       | I          | 1         | .1             | :              | I        | t       | I                     | :     | I      | :      |
| Morgan                 | 1       | 1          | I         | 1              | 1              | ł        | I       | :                     | I     | 1      | ı      |
| Rich                   | ł       | 1          | ı         | 1              | ;              | I        | ł       | ı                     | 1     | I      | 1      |
| Summit                 | 1       | 1          | I         | I              | I              | I        | ł       | ł                     | I     | I      | 1      |
| Weber                  | 1       | 1          | 1         | 1              | 1              | 1        | '       | ,                     | ľ     | •      | 1      |
| REGIONAL TOTALS        | 32      | <b>0</b> 6 | 91        | 46             | 51             | ÷        | =       | =                     | ø     | 55     | 0.55   |
| Central Region         |         |            |           |                |                |          |         |                       |       |        |        |
| Juab                   | I       | ł          | I         | I              | ı              | ł        | 1       | <b>I</b> .            | :     | 1      | ı      |
| Salt Lake              | 1       | ı          | 1         | 1              | I              | I        | I       | 1                     | 1     | 1      |        |
| Sanpete                | 1       | ł          | 1         | 1              | 1              | I        | ı       | I                     | I     | I      | 1      |
| Tooele                 | ł       | :          | ı         | ı              | 1              | I        | ı       | 1                     | ı     | 1      | 1      |
| Utah                   | 1       | 1          | 1         | 1              | I              | I        | 1       | I                     | ı     | I      | 1      |
| Wasatch                | 1       | 1          | 1         | 1              | 1              | 1        | !       | 1                     | 1     | -      | ı      |
| REGIONAL TOTALS        | 1       | 1          | 1         | 1              | 1              | 1        | 1       | '                     | 1     | '      | 1      |
| Southern Region        |         |            |           |                |                |          |         |                       |       |        |        |
| Beaver                 |         |            |           |                |                |          |         |                       | ,     |        |        |
| Garfield               |         |            |           |                |                |          |         |                       |       |        |        |
| Iron                   |         |            |           |                |                |          |         |                       |       |        |        |
| Kane                   |         |            |           | NOT APPLICABLE | LICABLE        |          |         |                       |       |        |        |
| Millard                |         |            |           |                |                |          |         |                       |       |        |        |
| Piute                  |         |            |           |                |                |          |         |                       |       |        |        |
| Sevier                 |         |            |           |                |                |          |         |                       |       |        |        |
| Washington             |         |            |           |                |                |          |         |                       |       | ·      |        |
| Wayne                  |         |            |           |                |                |          |         |                       |       |        |        |
| REGIONAL TOTALS        |         |            |           |                |                |          |         |                       |       |        |        |
| Northeastern Region    |         |            |           |                |                |          |         |                       |       |        |        |
| Daggett                |         |            |           |                |                |          |         |                       |       |        |        |
| Duchesne               |         |            |           | NOT APP        | NOT APPLICABLE |          |         |                       |       |        |        |
| Uintah                 |         |            |           |                |                |          |         |                       |       |        |        |
| REGIONAL TOTALS        |         |            |           |                |                |          |         |                       |       |        |        |
| Southeastern Region    |         |            |           |                |                |          |         |                       |       |        |        |
| Carbon                 |         |            |           |                |                |          |         |                       |       |        |        |
| Emery                  |         |            | -         | NOT APP        | NOT APPLICABLE |          |         |                       |       |        |        |
| Grand                  |         |            |           |                |                |          |         |                       |       |        |        |
| San Juan               |         |            |           |                |                |          |         |                       |       |        |        |
| <b>REGIONAL TOTALS</b> |         |            |           |                |                |          |         |                       |       |        |        |
| STATE TOTALS           | 32      | 90         | 91        | Ş              | 51             | 3        | =       | =                     | •     | 55     | 0.55   |
|                        |         | I          |           |                |                |          |         |                       |       |        |        |

100 Hr Birds/ 0.55 0.55 0.55 ţ. I Hanter **Birds/** 3 ł 5 100 Hr Bidel 1 1990 Binds/ Hunter 1 ł 1 100 Hr Birds/ 9.50 9.50 9:20 1 ł 1 1 ł t 1<u>98</u>01 Hunter Birds/ 181 181 181 1 1 1 ł 
 Table 11. Hungarian partridge hunter success trend as determined by field hag check, 1986-91.

 1986
 1987
 1988
 Hunter Birds/ 1.04 2 1.04 ł ł 100 Hr **Birds/** NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE 34 2 ł ł 2 Hunter Hids/ <u></u> 8 1.69 1 1 100 Hr Birds/ I Э 3 Hunter Binds/ 0.16 0.16 0.16 1 1 Т 100 Hr Birds/ • **REGIONAL TOTALS REGIONAL TOTALS** REGIONAL TOTALS **REGIONAL TOTALS REGIONAL TOTALS** Northeastern Region Southeastern Region Region and Northern Region STATE TOTALS County Southern Region **Central Region** Washington **Box Elder** Salt Lake Duchesne Wasatch Garfield San Juan Morgan Sampete Daggett Summit Carbon Weber Tooele Cache Wayne Davis Beaver Vintah Emery Millard Utah jevier Grand Rich Juab Kane 222 Plufe

# WILD TURKEY

## **SUMMARY**

#### <u>Merriam's Turkeys</u>

Turkey populations remain high and well above the 22 year average and percent success average. The percent of hunters observing turkeys declined in 1991, but remains 18 percent above average. Merriam's populations appear to be down somewhat since 1984.

Hunter success and turkey observation data for the 1991 spring season indicated that the East Zion area had a better year than 1990. Total harvest and percent success increased 31 and 50 percent respectively. Thirty-eight birds were reported harvested for this unit. Harvest statistics indicate that the Boulder and LaSal populations increased slightly. The remaining units of the state were closed to hunting. A fall turkey hunting season was not held anywhere in 1991.

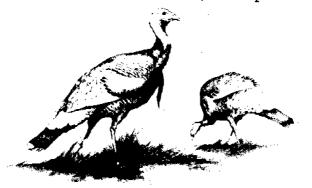
Spring hunting pressure was up again in 1991 and was well above average. Complaints about hunters interfering with each other due to over-crowding were made by 5 of 432 voluntary responses. Three percent of the hunters complained about conflicts with bear hunters. To reduce opening weekend pressure, the season opened Wednesday, May 1, rather than the Saturday nearest May 1. The popularity and demand for turkey hunting in Utah is very great.

Hunter success was up (10 percent) from the previous year. A total of 59 turkeys were harvested in the spring hunt of 1991 compared to 52 taken in 1990 and 59 in 1989 and 66 in 1988. Observations of turkeys remained higher than average in 1991, but it dropped on the La Sal and East Zion areas.

This was the fourth year of drought in southern Utah and may be adversely affected brood survival.

### Rio Grande Turkeys

In 1991, Utah sportsmen were given a limited entry opportunity to harvest Rio Grande turkeys. Four units were designated as limited entry for Rio Grand turkeys: 1) Marysvale, 2) New Harmony, 3) Pine Valley and 4) Tropic. Five permits were available for each unit with a \$25.00 permit fee required to



TURKEYS

participate in the hunt. Hunters were allowed to harvest 1 male bird. One hundred fifty-nine sportsmen applied for the 20 available permits. A random drawing was held to determine successful applicants. Odds for drawing in each area were as follows: 1) Marysvale 1:10, 2) New Harmony 1:5, 3) Pine Valley 1:8 and 4) Tropic 1:9.

Limited brood count data is exhibited in Table 5. Harvest statistics for the limited entry hunts are found in Table 6. Eighteen hunters averaged 3.95 days-afield each to harvest a total of 11 turkeys. Three of the harvested birds were yearlings and 8 were adults. Sixty-one percent of the hunters afield harvested a bird.

Overall, participating hunters felt that the hunt offered a quality experience. There were a couple of complaints about access to private property and the season being open too late in the year.

As other Rio Grande populations continue to grow throughout the state, more limited entry opportunities will be provided.

#### Harvest

### Spring Merriam's Gobbler Season

Results of the 1991 spring season are shown in Table 1 of this section. The trend of these data since 1968 is shown in Table 2 and Figures 1 and 2. Specific harvest information is listed in Table 3. Statewide summary of fall hunt statistics is in Table 4. The 1991 spring season compared to 1990 and the previous 22-year average follow:

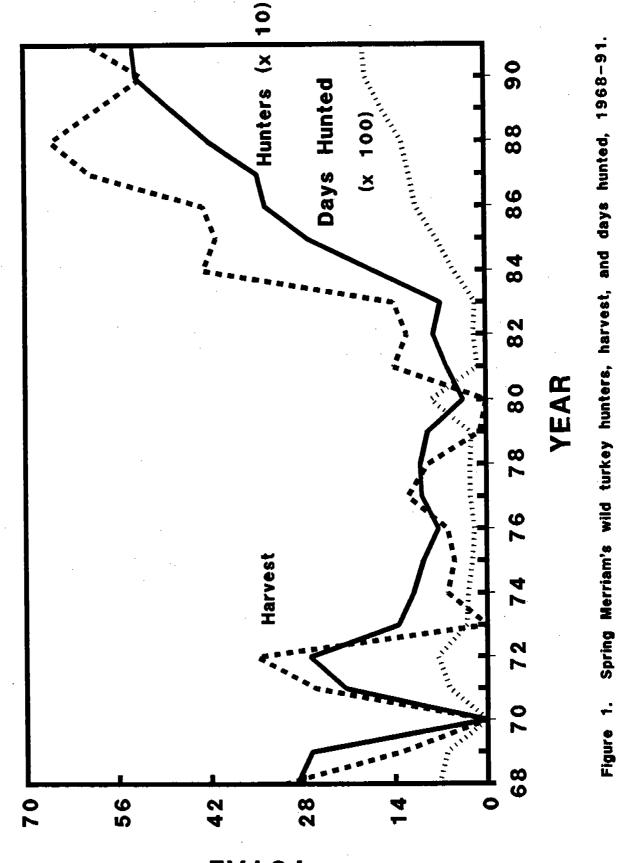
|                                 |       | Percent | <u>change from</u> |
|---------------------------------|-------|---------|--------------------|
|                                 | 1991  | 1990    | Average            |
|                                 |       |         |                    |
| Permits sold                    | 587   | +1      | +156               |
| Hunters afield                  | 532   | 0       | +158               |
| Turkeys harvested               | 59    | +13     | +136               |
| Hunter-days afield              | 1,792 | -1      | +202               |
| Percent hunter success          | 11    | +10     | 0                  |
| Turkeys bagged per hunter-day   | 0.03  | 0       | -25                |
| Percent of hunters who observed |       |         |                    |
| turkeys                         | 49    | -5      | +18                |

Again, permit sales and hunters afield increased from 1990 and were well above average. Total harvest increased (from 52 in 1990 to 59 in 1991), which is thirteen percent below the previous year. Hunter success rates increased slightly from 1990 and remained the same as the 22-year average. The proportion of hunters who reported having observed turkeys was 26 percent above average. In 1991, the Boulder Unit accounted for 45% of the hunting pressure based on hunter days afield. The East Zion unit accounted for only 38% of the hunting pressure. However, the East Zion Unit accounted for 64% of the statewide harvest. Reports of heavy snowfall on the East Zion unit during the season may have shifted hunting pressure onto other units.

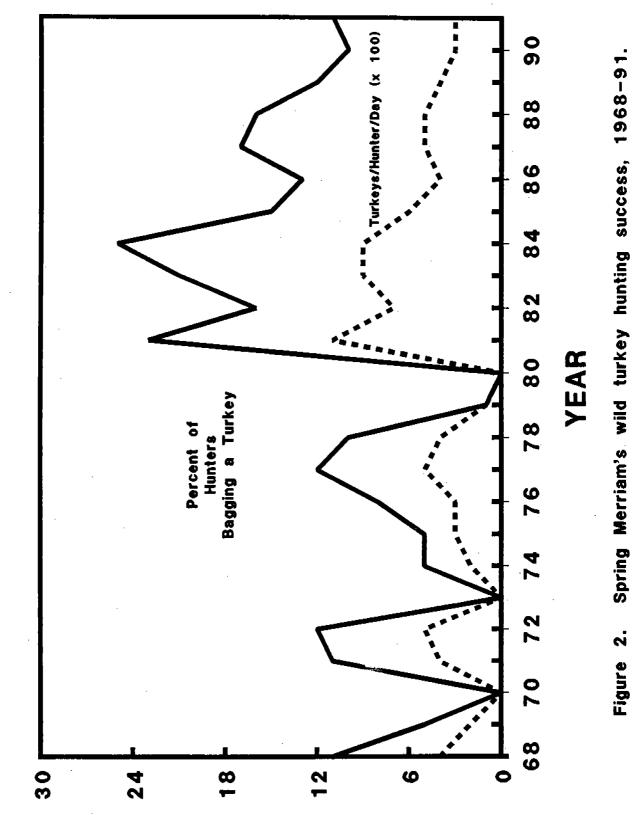
The trend of spring Merriam's turkey harvest statistics is shown in Figures 1 and 2. Nine percent of the hunters (34) used bows and the remainder reported using shotguns. Twelve turkeys were reported crippled and not recovered. Five of 48 known kills were suspected of being females and another fourteen are suspected of being jakes.

Thirty-five percent of the harvest (17 of 48) occurred on opening day (Wednesday) 14 percent the following day, 18 percent the first weekend and 6 percent the last weekend of the hunt. Fourteen percent of the harvest occurred on weekends compared with 25 percent last year (1990) and 33 percent in 1989 and 44 percent in 1988. It appears that opening the season on May 1 instead of Saturday nearest May 1, is doing what was intended by spreading harvest and pressure out over the season.

Sixteen of 432 hunters commented that the spring hunting season should be opened 1-3 weeks earlier. Fourteen commented that they would like more turkeys. Four suggested that there's not enough access to private property. Five complained about too many hunters. Turkey hunters were also questioned about interference from bear hunters using hounds during the 1991 hunt. Three of 432 hunters complained of interference in previous years. Two hunters from the Boulder Mountain unit complained of interferences that occurred once. Three hunters from the LaSal Mountains unit complained of a total of 5 interferences. Five hunters from the East Zion unit complained of a total of 8 interferences. Overall, interferences from bear hunters was reported by only three percent of the turkey hunters afield.



ΙΑΤΟΤ



Ì

ľ

TURKEYS PER HUNTER AND PER DAY

166

|                         | Elk Ridge  | East Zion | lion | Boulder | ٤.   | LaSal |      | Beaver     |      | Pine Valley | Mixed Units | Units | STATE | STATE TOTALS |
|-------------------------|------------|-----------|------|---------|------|-------|------|------------|------|-------------|-------------|-------|-------|--------------|
| Data                    | Rep't Calc | c Rep't   | Calc | Rep't   | Calc | Rep't | Calc | Rep't      | Calc | Rep't Calc  | Rep't*a     | a *a  | Rep't | Calc         |
| Permits Sold            |            | 1         |      |         |      |       |      |            |      |             |             |       | 587   |              |
| No Httnfs               |            |           |      |         |      |       |      |            |      |             |             |       | 42    |              |
| lfunters Afield         | C          | 167       | 204  | 189     | 231  | 6L    | 76   | C          |      | Ч           | 13          | 16    | 435   | 532          |
| Hunter-Days             | <u>ر</u>   | 558       | 682  | 653.    | 66L  | 254   | 311  | . <b>_</b> |      |             | 47          | 57    | 1,465 | 1,792        |
| Turkeys Bagged          | 0          | Ю         | 38   | 15      | 18   | 6     | 7    | 0          | -    | ¥           | •           | 4     | 48    | 59           |
| Percent Success         | S          | 19        | :    | œ       | ł    |       | 1    | S          |      | -           | 53          | I     | 11    | I            |
| Turkeys Bagged Per      | ы          |           |      |         |      |       |      | E          |      | T           |             |       |       | ī            |
| llunter-Day             | ٩          | 0.06      | ł    | 0.02    | I    | 0.01  | :    | Ũ          | -    | E           | 0.06        | I     | 0.03  | ł            |
| Reported Crippling Loss |            | S         | 1    | S       | I    | 6     | I    |            |      | <b>A</b>    | ÷           | ł     | 12    | 1            |
| (Loss/100 Bagged)       | S          | 16        | ł    | 33      | I    | 100   | ł    | S          | -    |             | ¢           | 1     | 25    | ı            |
| Turkeys Observed        | Ъ          | 718       | I    | 548     | I    | 8     | 1    | E          |      | ы           | 70          | . 1   | 1,349 |              |
| Gobblers                | <          | 151       | ł    | 123     | I    | 61    | ļ    | <          |      | z           | 61          | 1     | 299   |              |
| liens                   | S          | 444       | ł    | 299     | 1    | 46    | I    | S          |      | F           | 41          | 1     | 789   | ł            |
| Unidentified            | 0          | 121       | ł    | 128     | t    | 19    | 1    | C          | -    | æ           | 10          | ł     | 268   | I            |
| Number of Hunters       | Z          |           |      |         |      |       |      | Z          |      | ۲           |             |       |       |              |
| Who Saw Turkeys         |            | 16        | 1    | 92      | ł    | 28    | 1    |            |      |             | Q           | I     | 211   | I            |
| Percent of Hunters      |            |           |      |         |      |       |      |            |      |             |             |       |       |              |
| Who Saw Turkeys         |            | 54        | 1    | 49      | I    | 35    | I    |            |      |             | 69          | 1     | \$    | :            |

()Hunters Hunted More than One Area; Data Included In Specific Area Hunted.

a Figures Do Not Sum Because These Hunters Hunted Another Unit As Their Primary Hunting Area And Were Not Counted Twice. Hunters Afield and Days By Unit Were As Follows: Boulder (10-36), All Ten of These Were From East Zion As Their Primary Units; East Zion (1-5), From Boulder; LaSal (2-6), From East Zion.

167

| Table 2. Summar | ry of Meri | rriam's turk | ey harvest st | Summary of Merrriam's turkey harvest statistics for spring gobbler seasons, 1967-91. | gobbler seaso | ns, 1967-91.       |                          |           |
|-----------------|------------|--------------|---------------|--|---------------|--------------------|--------------------------|-----------|
|                 |            | Hunters      | Total         | Hunter-Days  | Percent       | <b>Turkeys Per</b> | Percent of Hunters       | Total     |
| Hunting Unit    | Year       | Afield       | Harvest       | Afield   | Success*      | Hunter-Day         | <b>Observing Turkeys</b> | Permits** |
| EAST ZION       | 1967       | 24           | 6             | 59   | 38            | 0.15               | 58                       |           |
|                 | 1968       | 130          | 16            | 364  | . 11          | 0.04               | 48                       |           |
|                 | 1969       | 77           | 4             | 210  | 9             | 0.02               | 35                       | -         |
|                 | 1970       |              | -             |  | NO SEASON     |                    |                          |           |
|                 | 1971       | 106          | 14            | 272  | · 12          | 0.05               | 38                       |           |
|                 | 1972       | 113          | 20            | 321  | 14            | 0.06               | 47                       |           |
|                 | 1973       | 43           | 0             | 96   | 0             | 0.00               | 14                       |           |
|                 | 1974       | 34           | 7             | 73   | 7             | 0.03               | 23                       |           |
|                 | 1975       | 29           | e.            | 42   | æ             | 0.06               | 33                       |           |
| ,               | 1976       | 31           | ŝ             | 74   | 16            | 0.05               | 38                       |           |
|                 | 1977       | 47           | 9             | 117  | 13            | 0.05               | 8                        |           |
|                 | 1978       | 36           | 4             | 80   | 13            | 0.06               | 56                       |           |
|                 | 1979       | 35           | 1             | 95   | 4             | 0.01               | 11                       |           |
|                 | 1980       | 35           | 0             | 84   | •             | 0.00               | 11                       |           |
|                 | 1981       | 39           | 13            | 94   | 32            | 0.14               | 68                       |           |
|                 | 1982       | 62           | 11            | 134  | 18            | 0.08               | 70                       |           |
|                 | 1983       | <b>\$</b>    | 12            | 122  | 25            | 0.10               | 68                       |           |
|                 | 1984       | 108          | 30            | 313  | 72            | 0.09               | 70                       |           |
|                 | 1985       | 129          | 24            | 368  | 19            | 0.07               | 09                       |           |
|                 | 1986       | 173          | 31            | 508  | 18            | ·90°0              | 68                       |           |
|                 | 1987       | 153          | <b>4</b>      | 500  | 26            | 0.08               | 74                       |           |
|                 | 1988       | 221          | 4             | 680  | 20            | 0.06               | <b>45</b>                |           |
|                 | 1989       | 235          | 35            | 799  | 15            | 0.04               | <b>6</b> 6               |           |
|                 | 1990       | 250          | 29            | 850  | 12            | 0.03               | 60                       |           |
|                 | 1991       | 204          | 38            | 682  | 19            | 0.06               | 54                       |           |
|                 |            |              |               |  |               |                    |                          |           |

168 -

| _   |
|-----|
| ed  |
| Ē   |
| Ē   |
| 5   |
| 9   |
|     |
| 2   |
| -je |
| -5  |

| Hunting Unit         Hunters         Total         Hunter-Days         Percent         Turkeys         Percent | Table 2. (Continued) | ueuy |         |         |             |           |                    |                          |           |
|--|----------------------|------|---------|---------|-------------|-----------|--------------------|--------------------------|-----------|
| Var         Afield         Harvest         Afield         Jarvest         Afield         Jarvest         Afield         Success         Hunter-Day         Observing Turkeys           1966         11         2         43         12         0.05         75           1968         134         15         330         10         4         0.02         16           1971         27         1         6         300         4         0.02         16           1971         27         1         64         0.02         13         28           1973         22         0         56         0         0.00         5         13           1973         16         1         34         7         0.04         8         0.03           1974         23         0         55         0         0.00         16         1           1975         16         1         34         7         0.04         8         14           1975         16         1         34         7         0.04         8         14           1976         13         0         0         0.00         0         14   |                      |      | Hunters | Total   | Hunter-Days | Percent   | <b>Turkeys Per</b> | Percent of Hunters       | Total     |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | Hunting Unit         | Year | Afield  | Harvest | Afield      | Success•  | Hunter-Day         | <b>Observing Turkeys</b> | Permits** |
| 1968         134         15         330         10         0.05           1970         141         6         300         4         0.02           1971         27         1         64         4         0.02           1971         27         1         64         4         0.02           1972         22         0         52         0         0.03           1973         22         0         56         0         0.03           1975         16         1         34         7         0.04           1975         16         1         34         7         0.04           1976         12         0         25         0         0.00           1973         16         1         34         7         0.04           1976         12         0         25         0         0.01           1973         5         0         13         0         0.01           1981         16         1         31         0         0.01           1982         5         0         10         0         0.01           1983         6         1 <td>BOULDER</td> <td>1967</td> <td>17</td> <td>7</td> <td><b>4</b>3</td> <td>12</td> <td>0.05</td> <td>75</td> <td></td>  | BOULDER              | 1967 | 17      | 7       | <b>4</b> 3  | 12        | 0.05               | 75                       |           |
| 141     6     300     4     0.02       27     1     64     4     0.02       27     1     64     4     0.02       22     0     55     0     9.00       16     1     34     7     0.04       12     0     55     0     0.00       6     0     13     0     0.00       16     1     31     0     0.00       5     0     13     0     0.00       6     1     31     0     0.00       5     0     10     0     0.00       6     1     31     0     0.00       7     0.01     10     0     0.00       5     0     10     0     0.00       6     1     31     0     0.01       73     7     20     0.11     10       73     7     10     0.02       123     8     354     7     0.03       138     13     417     10     0.03       138     13     417     10     0.03       138     13     8     0.03       138     13     8     0.03 <td>MOUNTAINS</td> <td>1968</td> <td>134</td> <td>15</td> <td>330</td> <td>10</td> <td>0.05</td> <td></td> <td></td>   | MOUNTAINS            | 1968 | 134     | 15      | 330         | 10        | 0.05               |                          |           |
| 27       1       64       4       0.02         27       1       64       4       0.02         22       0       52       0       0.03         16       1       34       7       0.03         12       0       55       0       0.00         6       0       13       0       0.00         16       1       31       0       0.00         5       0       13       0       0.00         6       1       31       0       0.00         5       0       10       0       0.00         5       0       10       0       0.00         5       0       10       0       0.00         5       0       10       0       0.00         5       1       31       10       0.01         7       187       10       0       0.01         73       7       10       0.02       0.03         134       11       363       7       0.03         138       13       31       11       363       7         138       13       <   |                      | 1969 | 141     | 9       | 300         | 4         | 0.02               | 19                       |           |
| 27       1       64       4       0.02         22       0       52       0       0.03         16       1       34       7       0       0.03         16       1       34       7       0       0.00         16       1       34       7       0       0.04         16       1       34       7       0.04       0.00         16       1       31       0       0       0.00         5       0       13       0       0       0.00         5       0       10       0       0       0.00         5       0       10       0       0.00       0.00         5       0       10       0       0.00       0.00         5       0       10       0       0.00       0.00         33       9       85       27       0.11       17         73       11       363       7       2.0       0.11         134       11       363       7       0.03       0.03         138       13       417       10       0.03       0.03         138 <td></td> <td>1970</td> <td></td> <td></td> <td></td> <td>NO SEASON</td> <td></td> <td>9<br/>1</td> <td></td>  |                      | 1970 |         |         |             | NO SEASON |                    | 9<br>1                   |           |
| 42       3       107       8       0.03         122       0       55       0       56       0       0.03         16       1       34       7       0.04       0.00       0.00         12       0       55       0       13       0       0.00       0.00         16       1       31       0       13       0       0.00       0.00         5       0       10       13       0       0.00       0.00       0.00         5       0       10       0       0       0       0       0.01       0         5       0       10       0       0       0       0       0.01       0       0.01       0       0.01       0   |                      | 1971 | 27      | 1       | 64          | 4         | 0.02               | 13                       |           |
| 22       0       52       0       0.00         16       1       34       7       0.04         12       0       25       0       0.00         6       0       13       0       0.00         16       1       31       0       0.00         5       0       13       0       0.00         6       1       31       0       0.00         5       0       10       0       0.00         6       1       31       0       0.00         5       0       10       0       0.00         6       1       2       0       0.01         73       7       20       0.11         73       7       20       0.11         73       7       20       0.11         73       11       363       7       0.03         134       11       363       7       0.03         138       13       417       10       0.03         138       13       33       8       0.03         138       13       13       10       0.03   |                      | 1972 | 42      | ÷       | 107         | ×         | 0.03               | 28                       |           |
| 1       23       0       56       0       0.00         16       1       34       7       0.00       0.00         6       0       13       0       0.00       0.00         16       1       31       0       0.00       0.00         5       0       10       0       0       0.00         6       1       31       0       0.00       0.00         5       0       10       0       0       0.00         6       1       31       0       0.00       0.00         5       0       10       0       0       0.00         6       1       7       20       0.11       33         33       9       85       27       0.11       33         33       9       85       27       0.11       33         105       11       363       7       0.03       33         138       13       31       417       10       0.03         138       13       31       417       10       0.03         138       11       585       6       0.03       303 </td <td></td> <td>1973</td> <td>22</td> <td>0</td> <td>52</td> <td>•</td> <td>0.00</td> <td>Q</td> <td></td>  |                      | 1973 | 22      | 0       | 52          | •         | 0.00               | Q                        |           |
| 16       1       34       7       0.04         6       0       13       0       0.00         5       0       13       0       0.00         5       0       10       0       0.00         5       0       10       0       0.00         6       1       31       0       0.00         5       0       10       0       0.00         7       0.10       0       0       0.00         7       0.10       0       0       0.00         6       1       7       20       0.11         73       7       187       10       0.04         123       8       354       7       0.03         134       11       363       7       0.03         138       13       417       10       0.03         138       13       138       8       0.03         138       13       18       10       0.03         138       13       13       10       0.03         138       13       13       8       0.03         138       13 <td< td=""><td></td><td>1974</td><td>23</td><td>0</td><td>56</td><td>0</td><td>0.00</td><td>25</td><td></td></td<>   |                      | 1974 | 23      | 0       | 56          | 0         | 0.00               | 25                       |           |
| 12       0       25       0       0.00         6       0       13       0       0.00         5       0       10       0       0.00         5       0       10       0       0.00         5       0       10       0       0.00         5       0       10       0       0.00         6       1       31       0       0.00         6       1       7       2.0       0.17         33       9       85       2.7       0.11         73       7       187       10       0.04         73       7       187       10       0.03         123       8       354       7       0.03         134       11       363       7       0.03         138       13       13       11       363       6       0.03         138       13       13       13       10       0.03       10         231       18       79       8       0.03       10       10         231       18       79       8       0.03       10       10       10     <   |                      | 1975 | 16      | 1       | 34          | 7         | 0.04               | œ                        |           |
| 6       0       13       0       0.00         5       0       10       0       0.00         5       0       10       0       0.00         5       0       10       0       0.00         5       0       10       0       0.00         6       1       7       20       0.17         6       1       7       20       0.17         33       9       85       27       0.11         73       7       187       10       0.04         134       11       363       7       0.03         134       11       363       7       0.03         138       13       417       10       0.03         138       13       585       6       0.03         138       18       79       8       0.02         231       18       79       8       0.02  |                      | 1976 | 12      | •       | 25          | 0         | 0.00               | 10                       |           |
| 16     1     31     0     0.00       5     0     10     0     0     0.00       6     1     7     20     0.17       6     1     7     20     0.17       33     9     85     27     0.11       73     7     187     10     0.04       73     7     187     10     0.04       123     8     354     7     0.03       134     11     363     7     0.03       134     11     383     8     0.03       138     13     417     10     0.03       138     11     585     6     0.03       231     18     799     8     0.03   |                      | 1977 | 9       | 0       | 13          | 0         | 0.00               | 40                       |           |
| 5     0     10     0     0.00       6     1     7     NO SEASON       6     1     7     NO SEASON       33     9     85     27     0.17       33     9     85     27     0.11       73     7     187     10     0.04       123     8     354     7     0.03       123     8     353     7     0.03       134     11     363     7     0.03       138     13     417     10     0.03       138     13     417     10     0.03       231     18     79     8     0.03       231     18     799     8     0.02  |                      | 1978 | 16      | 1       | 31          | 0         | 0.00               | 14                       |           |
| NO SEASON         NO SEASON           6         1         7         NO SEASON           6         1         7         NO SEASON           33         9         85         27         0.17           73         7         187         10         0.04           73         7         187         10         0.04           123         8         354         7         0.01           123         8         354         7         0.02           123         8         353         7         0.03           134         11         363         7         0.03           138         13         417         10         0.03           138         13         417         10         0.03           231         18         79         8         0.02           231         18         799         8         0.02  |                      | 1979 | ŝ       | 0       | 10          | 0         | 0.00               | •                        |           |
| 6       1       7       20       0.17         33       9       85       27       0.17         33       9       85       27       0.11         73       7       187       10       0.04         73       7       187       10       0.04         123       8       354       7       0.04         123       8       353       7       0.02         134       11       363       7       0.03         134       11       383       8       0.03         138       13       417       10       0.03         231       18       79       8       0.02         231       18       799       8       0.02  |                      | 1980 |         |         | -           | NO SEASON |                    |                          |           |
| 6     1     7     20     0.17       33     9     85     27     0.11       73     7     187     10     0.04       73     7     187     10     0.04       123     8     354     7     0.02       123     8     354     7     0.02       124     11     363     7     0.03       134     11     383     8     0.03       138     13     417     10     0.03       138     13     55     6     0.02       231     18     799     8     0.02  |                      | 1981 |         |         | -           | NO SEASON |                    |                          |           |
| 6       1       7       20       0.17         33       9       85       27       0.11         73       7       187       10       0.04         73       7       187       10       0.04         73       8       354       7       0.02         123       8       354       7       0.02         134       11       363       7       0.03         134       11       383       8       0.03         138       13       417       10       0.03         138       13       417       10       0.03         231       18       799       8       0.02         231       18       799       8       0.02   |                      | 1982 |         |         | [           | NO SEASON |                    |                          | •         |
| 33     9     85     27     0.11       73     7     187     10     0.04       123     8     354     7     0.02       105     11     363     7     0.03       134     11     383     8     0.03       138     13     417     10     0.03       138     13     417     10     0.03       231     18     79     8     0.02   |                      | 1983 | 9       | 1       | 7           | 20        | 0.17               | 40                       |           |
| 73     7     187     10     0.04       123     8     354     7     0.02       105     11     363     7     0.03       134     11     383     8     0.03       138     13     417     10     0.03       138     13     417     10     0.03       138     13     55     6     0.02       231     18     799     8     0.02   |                      | 1984 | 33      | 9       | 85          | 27        | 0.11               | 52                       |           |
| 123     8     354     7     0.02       105     11     363     7     0.03       134     11     383     8     0.03       138     13     417     10     0.03       138     13     417     10     0.03       135     11     585     6     0.02       231     18     799     8     0.02   |                      | 1985 | 73      | ٢       | 187         | 10        | 0.04               | 46                       | ·         |
| 105     11     363     7     0.03       134     11     383     8     0.03       138     13     417     10     0.03       138     13     417     10     0.03       138     11     585     6     0.02       231     18     799     8     0.02  | -                    | 1986 | 123     | ••      | 354         | ٢         | 0.02               | 44                       |           |
| 134     11     383     8     0.03       138     13     417     10     0.03       138     11     585     6     0.02       231     18     799     8     0.02   |                      | 1987 | 105     | 11      | 363         | L         | 0.03               | 4                        |           |
| 138     13     417     10     0.03       185     11     585     6     0.02       231     18     799     8     0.02   |                      | 1988 |         | 11      | 383         | ÷         | 0.03               | 50                       |           |
| 185 11 585 6 0.02<br>231 18 799 8 0.02   |                      | 1989 |         | 13      | 417         | 10        | 0.03               | 69                       |           |
| 231 18 799 8 0.02  |                      | 1990 |         | 11      | 585         | 9         | 0.02               | 42                       | ·         |
|  |                      | 1991 | 231     | 18      | <b>66</b> L | ø         | 0.02               | 49                       |           |

| Table 2. (Continued) | led) |           |         |             |           | -                  |                          |           |
|----------------------|------|-----------|---------|-------------|-----------|--------------------|--------------------------|-----------|
|                      |      | Hunters   | Total   | Hunter-Days | Percent   | <b>Turkeys Per</b> | Percent of Hunters       | Total     |
| Hunting Unit         | Year | Afield    | Harvest | Afield      | Success*  | Hunter-Day         | <b>Observing Turkeys</b> | Permits** |
| LASAL                | 1967 | 9         | 0       | 16          | •         | 0.00               | 33                       |           |
| MOUNTAINS            | 1968 | 17        | •       | 4           | 0         | 0.00               | 62                       |           |
|                      | 1969 | 39        | 9       | 102         | 6         | 0.03               | 24                       |           |
|                      | 1970 |           |         |             | NO SEASON |                    |                          |           |
|                      | 1971 | 17        | 1       | 34          | 9         | 0.03               | 20                       |           |
|                      | 1972 | 50        | 3       | 129         | 7         | 0.03               | 29                       |           |
|                      | 1973 | 23        | 0       | 53          | 0         | 0.00               | 16                       |           |
|                      | 1974 | 20        | 0       | <b>66</b>   | 0         | 0.00               | 11                       |           |
|                      | 1975 | 11        | 0       | 30          | 0         | 0.00               | 33                       |           |
|                      | 1976 | <b>80</b> | 0       | 25          | 0         | 0.00               | 14                       |           |
|                      | 1977 | 24        | 4       | 53          | 15        | 0.07               | 45                       |           |
|                      | 1978 | 32        | 7       | 78          | 7         | 0.03               | 38                       |           |
|                      | 1979 | 34        | 0       | 74          | C         | 0.00               | 7                        | ,         |
|                      | 1980 |           |         |             | NO SEASON |                    |                          |           |
|                      | 1981 | 18        | 1       | 31          | 9         | 0.03               | 24                       |           |
|                      | 1982 | 18        | 1       | 50          | 9         | 0.02               | 35                       |           |
|                      | 1983 | 12        | 1       | 27          | 10        | 0.10               | 30                       |           |
|                      | 1984 | 24        | ₹       | 70          | 19        | 0.06               | 88                       |           |
|                      | 1985 | 12        | 10      | 194         | 14        | 0.05               | 42                       |           |
|                      | 1986 | 51        | 4       | 192         | 4         | 0.02               | 45                       |           |
|                      | 1987 | 74        | 9       | 218         | 6         | 0.03               | 50                       |           |
|                      | 1988 | 62        | 11      | 199         | 16        | 0.06               | 70                       |           |
|                      | 1989 | 104       | 11      | 352         | 90        | 0.03               | 41                       |           |
|                      | 1990 | 95        | 12      | 340         | 13        | 0.03               | 48                       | • •       |
|                      | 1661 | 97        | 7       | 311         | ¢,        | 0.01               | 35                       |           |

|              |       | Hunters | Total   | Hunter-Days | Percent   | <b>Turkeys Per</b> | Percent of Hunters       | Total     |
|--------------|-------|---------|---------|-------------|-----------|--------------------|--------------------------|-----------|
| Hunting Unit | Year  | Afield  | Harvest | Afield      | Success*  | Hunter-Day         | <b>Observing Turkeys</b> | Permits** |
| BEAVED       | . 291 | ţ       |         | i           | ſ         |                    |                          |           |
| DEAVEN       | 1/41  | 17      | 7       | 54          | ×         | 0.04               | <b>6</b> £               |           |
| MOUNTAINS    | 1972  | 17      | 7       | 53          | 13        | 0.04               | 20                       | ı         |
|              | 1973  | 17      | •       | 34          | •         | 0.00               | 7                        |           |
|              | 1974  | 1       | 0       | -           | 0         | 0.00               | 0                        |           |
|              | 1975  | ŝ       | 0       | 7           | 0         | 0.00               | •                        |           |
|              | 1976  | 7       | 0       | æ           | 0         | 0.00               | 0                        |           |
|              | 1977  | 4       | 0       | 14          | 0         | 0.00               | •                        |           |
|              | 1978  | 7       | 0       | 7           | 0         | 0.00               | 92                       |           |
|              | 1979  |         |         | 1           | NO SEASON |                    | ;                        |           |
|              | 1980  |         |         | 1           | NO SEASON |                    |                          |           |
|              | 1981  |         |         | l           | NO SEASON |                    |                          |           |
|              | 1982  |         |         | l           | NO SEASON |                    |                          |           |
|              | 1983  |         |         | ſ           | NO SEASON |                    |                          |           |
|              | 1984  |         |         | 1           | NO SEASON |                    |                          |           |
|              | 1985  |         |         | 1           | NO SEASON |                    |                          |           |
|              | 1986  |         |         | 1           | NO SEASON |                    |                          |           |
|              | 1987  |         |         |             | NO SEASON |                    |                          |           |
|              | 1988  |         |         | Ĩ           | NO SEASON |                    |                          |           |
|              | 1989  |         |         | 4           | NO SEASON |                    |                          |           |
|              | 1990  |         |         |             | NO SEASON |                    |                          |           |
|              | 1991  |         |         | Ē           | NO SEASON |                    |                          |           |

| Table 2. (Continued) | ed)             |         |         |             |           |                    |                          |           |
|----------------------|-----------------|---------|---------|-------------|-----------|--------------------|--------------------------|-----------|
|                      |                 | Hunters | Total   | Hunter-Days | Percent   | <b>Turkeys Per</b> | Percent of Hunters       | Total     |
| Hunting Unit         | Year            | Afield  | Harvest | Afield      | Success*  | Hunter-Day         | <b>Observing Turkeys</b> | Permits** |
|                      |                 |         |         |             |           |                    |                          |           |
| <b>PINE VALLEY</b>   | 1971            | 23      | 4       | 92          | 15        | 0.04               | 70                       |           |
| MOUNTAINS            | 1972            | 77      | 1       | 52          | N)        | 0.02               | 42                       |           |
|                      | 1973            | 17      | 0       | 38          | 0         | 0.00               | 7                        |           |
| -                    | 1974            | 80      | 1       | 23          | 14        | 0.05               | 43                       |           |
|                      | 1975            | 9       | 0       | 12          | 0         | 0.00               | 0                        |           |
|                      | 1976            |         | 0       | 13          | 0         | 0.00               | 40                       |           |
|                      | 1977            | 7       | 0       | 7           | 0         | 0.00               | 0                        |           |
|                      | 1978            | 0       | 0       | •           | 0         | 0.00               | 0                        |           |
|                      | 1979            | B       | 0       | 15          | 0         | 00.0               | 0                        | 1         |
|                      | 1980            | 0       | •       | 0           | 0         | 0.00               | 0                        |           |
|                      | 1981            | 7       | 0       | 64          | 0         | 0.00               | <b>e</b>                 |           |
|                      | 1982            | 6       | 0       | ŝ           | 0         | 0.00               | 0                        |           |
|                      | 1983            | •       | 0       | •           | 0         | 0.00               | 0                        |           |
|                      | 1984***         |         |         |             | NO SEASON |                    |                          |           |
|                      | 1985***         |         |         |             | NO SEASON |                    |                          |           |
|                      | 1986***         |         |         |             | NO SEASON |                    |                          |           |
|                      | 1987            | æ       | 7       | 68          | 13        | 0.02               | 50                       |           |
|                      | 1988***         |         |         |             | NO SEASON |                    |                          |           |
|                      | 1989***         |         |         |             | NO SEASON |                    |                          |           |
|                      | 1990***         |         |         |             | NO SEASON |                    |                          |           |
|                      | <b>***</b> [66] |         |         |             | NO SEASON |                    |                          |           |

Table 2. (Continued)

| Table Z. (Continued)  |      |            |         |             |           |             |                          |           |
|-----------------------|------|------------|---------|-------------|-----------|-------------|--------------------------|-----------|
|                       |      | Hunters    | Total   | Hunter-Days | Percent   | Turkeys Per | Percent of Hunters       | Total     |
| Hunting Unit          | Year | Afield     | Harvest | Afield      | Success*  | Hunter-Day  | <b>Observing Turkeys</b> | Permits** |
|                       | 1    |            |         |             |           | 1           |                          |           |
| <b>BLUE MOUNTAINS</b> | 1974 | 17         | 2       | 34          | 13        | 0.07        | 27                       |           |
| ELK RIDGE             | 1975 | 19         | Ţ       | 62          | Ś         | 0.02        | 56                       |           |
|                       | 1976 | 11         | 0       | 23          | 0         | 0.00        | 33                       |           |
|                       | 1977 | 7          | H       | 14          | 17        | 0.08        | 17                       | ·         |
|                       | 1978 | 12         | 2       | 39          | 18        | 0.06        | 36                       |           |
|                       | 1979 | <b>9</b> 0 | 0       | 17          | 0         | 0.00        | 0                        |           |
|                       | 1980 |            |         | 1           | NO SEASON |             |                          |           |
|                       | 1981 |            |         |             | NO SEASON |             |                          |           |
|                       | 1982 |            |         |             | NO SEASON |             |                          |           |
|                       | 1983 |            |         |             | NO SEASON |             |                          |           |
|                       | 1984 |            |         |             | NO SEASON |             |                          |           |
|                       | 1985 |            |         |             | NO SEASON |             |                          |           |
|                       | 1986 |            |         |             | NO SEASON |             |                          |           |
|                       | 1987 |            |         |             | NO SEASON |             |                          |           |
|                       | 1988 |            |         |             | NO SEASON |             |                          |           |
|                       | 1989 |            |         |             | NO SEASON |             |                          |           |
|                       | 1990 |            |         |             | NO SEASON |             | ·                        |           |
|                       | 1991 | ·          |         |             | NO SEASON |             |                          |           |

| (pan |  |
|------|--|
| ntin |  |
| ບຼື  |  |
| સં   |  |
| ble  |  |

| Table 2. (Continued) | (p   |         |          |             |          |                    |                          |           |
|----------------------|------|---------|----------|-------------|----------|--------------------|--------------------------|-----------|
|                      |      | Hunters | Total    | Hunter-Days | Percent  | <b>Turkeys Per</b> | Percent of Hunters       | Total     |
| Hunting Unit         | Year | Afield  | Harvest  | Afield      | Success* | Hunter-Day         | <b>Observing Turkeys</b> | Permits** |
| MIXED UNITS          | 1971 | 15      | 4        |             | 15       |                    | 61                       | -         |
|                      | 1972 | 25      | ŝ        | 68          | 18       | 0.05               | 50                       |           |
|                      | 1973 | 12      | 0        | 38          | 0        | 0.00               | 0                        |           |
|                      | 1974 | 6       | 0        | 36          | 0        | 0.00               | 12                       |           |
|                      | 1975 | 11      | 0        | 32          | 0        | 0.00               | 22                       |           |
|                      | 1976 | 4       | 1        | 17          | 25       | 0.07               | 100                      |           |
|                      | 1977 | 6       | <b>1</b> | 29          | 13       | 0.04               | 50                       |           |
|                      | 1978 | 3       | 0        | 11          | 0        | 0.00               | 67                       |           |
|                      | 1979 | 9       | 0        | 27          | 0        | 0.00               | 20                       |           |
|                      | 1980 | 0       | 0        | 0           | 0        | 0.00               | 0                        |           |
|                      | 1981 | 1       | 0        | ы           | •        | 0,00               | 100                      |           |
|                      | 1982 | 0       | C        | ð           | 0        | 0.00               | 0                        |           |
| ·                    | 1983 | •       | 0        | 0           | 0        | 0.00               | 0                        |           |
|                      | 1984 | 4       | 0        | 15          | •        | 0.00               | 33                       |           |
|                      | 1985 | 4       | 0        | 6           | 0        | 0.00               | 67                       |           |
|                      | 1986 | 12      | 0        | 36          | 0        | 0.00               | <b>6</b> 0               |           |
|                      | 1987 | 11      | 0        | 28          | 0        | 0.00               | 0                        |           |
|                      | 1988 | 12      | 0        | 31          | 0        | 0.00               | 75                       |           |
|                      | 1989 | 9       | 1        | 12          | 23       | 0.13               | 50                       |           |
|                      | 1990 | 15      | 0        | 36          | 0        | 0.00               | 54                       |           |
|                      | 1991 | 16      | 4        | 57          | 23       | 0.06               | 69                       |           |
|                      |      |         |          |             |          |                    |                          |           |

|                |      | Hunters | Total      | Hunter-Days | Percent    | <b>Turkeys Per</b> | Percent of Hunters | Total     |
|----------------|------|---------|------------|-------------|------------|--------------------|--------------------|-----------|
| Hunting Unit   | Year | Afield  | Harvest    | Afield      | Success*   | Hunter-Day         | Observing Turkeys  | Permits** |
| STATE TOTALS   | 1968 | 290     | 31         | 738         | 11         | 0.04               | 19                 | 110       |
|                | 1969 | 267     | 13         | 612         | ŝ          | 0.02               | : 7                | 276       |
|                | 1970 |         |            | -           | NO SEASON  |                    |                    |           |
|                | 1971 | 215     | 26         | 576         | 11         | 0.04               | 38                 | 223       |
|                | 1972 | 269     | 35         | 751         | 12         | 0.05               | <b>6</b> £         | 285       |
|                | 1973 | 135     | 0          | 311         | Ð          | 0.00               | 10                 | 150       |
|                | 1974 | 112     | 9          | 289         | ŝ          | 0.02               | 22                 | 121       |
|                | 1975 | 76      | S          | 219         | <b>v</b> a | 0.03               | 29                 | 103       |
|                | 1976 | 74      | ÷          | 185         | œ          | 0.03               | 32                 | 81        |
|                | 1977 | 8       | 12         | 248         | 12         | 0.05               | 66                 | 108       |
|                | 1978 | 101     | 9          | 246         | 91         | 0.04               | 42                 | 116       |
|                | 1979 | 90      | 1          | 237         | 1          | 0.01               | 80                 | 113       |
|                | 1980 | 35      | 0          | 84          | 0          | 0.00               | 11                 | \$        |
|                | 1861 | 60      | 14         | 129         | 23         | 0.11               | 53                 | 5         |
|                | 1982 | 80      | 12         | 184         | 16         | 0.07               | 62                 | 91        |
|                | 1983 | 8       | 14         | 161         | 21         | 0.09               | <b>35</b>          | 26        |
|                | 1984 | 169     | £          | 482         | 25         | 0.09               | 11                 | 190       |
|                | 1985 | 270     | 41         | 747         | 15         | 0.06               | 23                 | 314       |
|                | 1986 | 335     | <b>6</b> 4 | 1,054       | 13         | 0.04               | 57                 | 362       |
|                | 1987 | 347     | 99         | 1,150       | 17         | 0.05               | 57                 | 384       |
|                | 1988 | 421     | \$         | 1,267       | 16         | 0.05               | 20                 | 66        |
|                | 1989 | 477     | 20         | 1,568       | 12         | 0.04               | 55                 | 527       |
|                | 1990 | 531     | 52         | 1,812       | 91         | 0.03               | 51                 | 579       |
|                | 1991 | 532     | 59         | 1,792       | E          | 0.03               | 49                 | 587       |
| STATE TOTALS   |      |         |            |             |            |                    |                    |           |
| (16-8961)      |      | 5,075   | 607        | 14,842      | 259        |                    |                    | 5,625     |
| STATE AVERAGES |      |         |            |             |            |                    |                    |           |
| (1968-90)      |      | 207     | 25         | 593         | Ξ          | 0.04               | 41                 | 110       |

Based on the number of hunters bagging one or more turkeys.

\*\*Total permits are sold on a statewide basis and not by unit.

\*\*\*The Pine Valley Mountains unit was closed by emergency action in 1984 and by amendment to the proclamation in 1985 to protect Rio Grande turkeys released on the area in February 1984. It was opened in 1987 and closed in 1988 through 1991 by proclamation.

| spring 1991  | •                  |                             |                                |    |
|--------------|--------------------|-----------------------------|--------------------------------|----|
| Hunting Unit | Date<br>of<br>Kill | Beard<br>Length<br>(Inches) | Spur<br>Length<br>(1/8 Inches) |    |
| EAST ZION    | *                  |                             |                                |    |
| EAST ZION    | *                  | 7                           | 4                              |    |
|              | *                  | ·                           |                                |    |
|              | *                  | 8                           | 6                              |    |
|              | 5/01               | 6                           | 8                              |    |
|              | 5/01               | 8                           | 4                              |    |
|              | 5/01               | 8<br>2<br>3<br>8            | 4                              |    |
|              | 5/01               | 3                           | 2 3                            |    |
|              | 5/01               | 8                           | . 3                            |    |
|              | 5/01               | 4                           | 1                              |    |
|              | 5/01               | 4                           | 4                              |    |
|              | 5/01               | 8                           |                                |    |
|              | 5/01               | 8                           | 7                              |    |
|              | 5/01               | 4                           | 6                              |    |
|              | *5/02              | 3                           |                                |    |
|              | 5/02               | 8                           | 6                              |    |
|              | *5/04              | 1                           |                                |    |
|              | 5/04               | 4                           | 2                              |    |
|              | 5/05               | 9                           | 6                              |    |
|              | 5/08               | 8<br>5                      |                                |    |
|              | 5/09               | 5                           |                                |    |
|              | 5/11               | 7                           | 4                              |    |
|              | 5/14               | 8                           | 6                              |    |
|              | 5/15               | 6                           | 1                              |    |
|              | 5/18               | 4                           | 6                              |    |
|              | *5/18              | 1                           |                                |    |
|              | 5/19               | 4                           | 8                              |    |
|              | 5/21               | 1                           | 1                              |    |
|              | 5/23               | 3                           | 2                              |    |
|              | 5/25               | 3<br>5<br>8                 |                                |    |
|              | 5/26               | 8                           | 3                              |    |
| LA SAL       | *                  | <u> </u>                    |                                |    |
|              | 5/23               | 3                           | 4                              |    |
| BOULDER      | 5/01               | 9<br>2                      | 6                              | ~~ |
|              | 5/01               | 2                           | 2                              |    |
|              | 5/01               | 3<br>3                      | 2                              |    |
|              | 5/01               | 3                           | 2                              |    |
|              | *5/01<br>5/01      | 4                           |                                |    |
|              | 5/01               | 3                           | ב<br>4                         |    |
|              | 5/01               | 7                           |                                |    |
|              | 5/03               | 3<br>8<br>5<br>4<br>8<br>2  | 1                              |    |
|              | 5/03               | 8                           | 6                              |    |
|              | 5/04               | 5                           | 1                              |    |
|              | *5/05              | 4                           |                                |    |
|              | 5/08               | 8                           | 4                              |    |
|              | 5/10               | 2                           | 1                              |    |
|              | 5/22               | 4                           | 3                              |    |
|              | 5/25               | 4                           |                                |    |

Table 3. Date of kill, beard and spur length of Merriam's turkeys harvested during spring 1991.

\*Possible violation of season date, sex, or weapon. All successful turkey hunters reported using shotguns.

|           | rennus,        | Hunters  | Hunter-Days | Turkeys    | Percent               | Turkeys per | Crippling Loss/ | Turkeys   | Percent of Hunters |
|-----------|----------------|----------|-------------|------------|-----------------------|-------------|-----------------|-----------|--------------------|
| Year      | Sold           | Afield   | Afield      | Bagged     | Success <sup>++</sup> | Hunter-Day  | 100 Bagged      | Ohserved  | Ohserving Turkeys  |
| 1964      | 229            | 211      | 362         | 100        | 38                    | 0.22        | 15              | 1.158     | 9.9                |
| 1965      | 214            | 207      | 406         | 50         | 24                    | 0.12        | æ               | 730       | 29                 |
| 1966*     | 192            | 187      | 471         | 43         | 23                    | 0.0         | <b>F</b> -      | 756       | ; \ <b>F</b>       |
| 1967      | 146            | 135      | 405         | 40         | 30                    | 0.10        | . 16            | 748       | 3<br>1             |
| 1968*     | 368            | 344      | 883         | 183        | 38                    | 0.21        | IS I            | 1.321     |                    |
| 1969      | 223            | 210      | 549         | 36         | 11                    | 90.0        | 61              | 466       | - 11               |
| 1970      | 197            | 174      | 418         | 58         | 24                    | 0.14        | ; • <b>e</b>    | 564       |                    |
| 1971      | 184            | 174      | 444         | 60         | 21                    | 0.14        |                 | 451       | 8                  |
| 1972      | 124            | 118      | 303         | 12         | 7                     | 0.04        | . 8             | 21        | 1 2                |
| ***£76]   | ;              | 1        | ı           | ł          |                       | 1           | 1               | 1         | ,<br>, 1           |
| 1974      | 29             | 26       | 79          | <b>e</b> 0 | 12                    | 0.04        | 11              | S         | 5                  |
| 1975      | 58             | <b>4</b> | 115         | 7          | 15                    | 0.06        | 0               | 5         | 57                 |
| 1976      | 68             | 56       | 136         | 15         | 27                    | 0.11        | -               | 182       | 32                 |
| 1977      | 6 <b>0</b>     | 53       | 133         | ٢          | 15                    | 0.06        | 0               | 4         | . 95               |
| 1978+     | 102            | 88<br>88 | 223         | ٢          | 6                     | 0.03        | 33              | 335       |                    |
| 1979      | <del>4</del> 6 | 36       | 71          | ÷          | 6                     | 0.05        | 0               | <b>61</b> | 19                 |
| 1980      | <b>6</b> 4     | 35       | 69          | 11         | 32                    | 0.16        | 38              | 127       | 44                 |
| 1981      | 63             | 55       | 114         | 12         | 11                    | 0.11        | 56              | 141       | 32                 |
| 1982      | 56             | 50       | 136         | Ш          | 23                    | 0.08        | 10              | 185       | 47                 |
| 1983      | 61             | 49       | 112         | 15         | 28                    | 0.13        | 0               | 303       | 49                 |
| 1984      | 97             | 86       | 193         | 28         | 32                    | 0.14        | 14              | 380       | 6                  |
| 1985***   | t              | I        | ;           | I          | ı                     | 1           | 1               | I         | : 1                |
| 1986***   | 1              | ł        | 1           | I          | 1                     | ł           | 1               | I         | I                  |
| 1987***   | 1              | 1        | 1           | 1          | 1                     | 1           | :               | I         | 1                  |
| 1988***   | 1              | ı        | 1           | 1          | 1                     | 1           | I               | I         | 1                  |
| ***6861   | I              | I        | ł           | 1          | 1                     | I           | I               | I         | ľ                  |
| 1990+++   | ı              | 1        | 1           | 1          | ł                     | ł           |                 | I         | ı                  |
| +++1661   | t              | 1        | 1           | ł          | ł                     | I           | ·               | I         | 1                  |
| TOTALS    |                |          |             |            |                       |             |                 |           |                    |
| (1964-84) | 2,560          | 2,340    | 5,622       | 682        |                       |             |                 | 9.269     |                    |
| AVERAGES  |                |          |             |            |                       |             |                 |           |                    |
| (1964-84) | 122            | 111      | 268         | 32         | 21                    | 0.10        | 14              | 441       | 34                 |

Mountains a one-bird limit; from 1969 through 1972, all areas had a two-bird limit. Hunter success was based on the number of successful hunters rather than total turkeys bagged. \*\*During 1968, the Boulder Mountain and East Zion units had two-bird season linuits and the LaSal

+++ No full season.

|                     |    | Disunce  | _        |       | MIXED | 2            | AGUITS W/O | -              |       |        |         |      |         |                 |           |         |
|---------------------|----|----------|----------|-------|-------|--------------|------------|----------------|-------|--------|---------|------|---------|-----------------|-----------|---------|
| Region and          |    | Broods   | .*       | Mean  |       | Observations | Young      | Total          | Total | Young/ | Vehicle |      | Hours o | Hours of Effort |           | Birds/  |
| County              | -  | Adults 1 | Young    | Brood |       | Adult Young  |            | Adults         | Young | 100 Ad | Mites   | Veh. | Horse   | Walk Total      |           | 100 Hr. |
| Northern Region     |    |          |          |       |       |              |            |                |       |        |         |      |         |                 |           |         |
| Box Elder           | ł  | ł        | ł        | ;     | -1    |              | 1          | ;              | 1     | I      | I       | 1    | ł       | I               | 1         | ł       |
| Cache               | ;  | 1        | 1        | :     | 1     | 1            | ł          | ł              | 1     | ł      | ł       | ł    | ł       | 1               | 1         | ł       |
| Davis               | 1  | ł        | ;        | :     | 1     |              | 1          | 1              | :     | 1      | ł       | 1    | 1       | :               | 1         | 1       |
| Morgan              | t  | ł        | ł        | :     | 1     |              | 1          | ł              | 1     | ł      | :       | 1    | ;       | 1               | 1         | 1       |
| Rich                | 1  | ł        | ;        | 1     | ł     |              | 1          | I              | 1     | I      | I       | 1    | ł       | 1               | I         | I       |
| Summit ·            | ŝ  | 1        | 20       | 4.00  | 1     |              | 1          | 1              | 20    | 1      | 1       | 1    | ł       | 1               | 1         | 1       |
| Weber               | ł  | 1        | ł        | 1     | ł     |              | ;          | ł              | 1     | 1      | 1       | 1    | 1       | I               | ł         | 1       |
| REGIONAL TOTALS     | S  | 1        | 20       | 4.00  |       | 1            |            | :              | 50    | 1      | 1       | 1    | 1       | 1               | 1         |         |
| Central Region      |    |          |          |       |       |              |            |                |       |        |         |      |         |                 |           |         |
| Juab                | 1  | 1        | :        | 1     | 1     |              | ;          | 1              | 1     | ł      | 1       | ł    | ł       | :               | ł         | ł       |
| Salt Lake           | 1  | 1        | I        | 1     | 1     | ;            | 1          | 1              | ł     | :      | ;       | ł    | ł       | :               | ł         | ;       |
| Sanpete             | 1  | ł        | ł        | ł     | 1     | ł            |            | ł              | 1     | ł      | ı       | 1    | ;       | 1               | :         | 1       |
| Tooele              | t  | 1        | 1        | I     | ł     | 1            | ł          | 1              | 1     |        | I       | I    | I       | 1               | 1         | 1       |
| Utah                | •  | 6        | 35       | 3.89  | 18    | 11           | 21         | 48             | 112   | 233    | 155     | 13   | 1       | 55              | <b>68</b> | 235     |
| Wasatch             | 1  | 1        | I        | I     | 1     |              | 1          | :              | 1     | 1      | I       | I    | I       | 1               | 1         | 1       |
| REGIONAL TOTALS     | ٩  | 6        | 35       | 3.89  | 18    | 11           | 21         | <del>4</del> 8 | 112   | 233    | 155     | .13  | 0       | 55              | <b>68</b> | 235     |
| Southern Region     |    |          |          |       |       |              |            |                |       |        |         | 1    |         |                 |           |         |
| Beaver              | 1  | 1        | <b>1</b> | 1     | :     |              | 1          | I              | ł     | 1      | :       | 1    | ł       | 1               | :         | 1       |
| Garfield            | ł  | 1        | ł        | 1     | 1     | 1            | I          | I              | 1     | 1      | 1       | 1    | :       | 1               | 1         | 1       |
| Iron                | 1  | ł        | 1        | I     | 1     |              | ł          | ł              | I     | I      | 1       | I    | I       | I               | ł         | 1       |
| Kane                | 1  | 1        | I        | I     | 1     |              | 1          | 1              | I     | 1      | 1       | 1    | ł       | 1               | :         | 1       |
| Millard             | ŀ  | ł        | ł        | :     | i     | ł            | 1          | I              | :     | 1      | 1       | 1    | ł       | 1               | 1         | 1       |
| Piute               | 1  | :        | :        | :     | :     |              | 1          | :              | 1     | I      | ł       | 1    | ł       | ł               | 1         | 1       |
| Sevier              | I  | ł        | :        | 1     | ;     |              | :          | :              | ł     | 1      | ı       | 1    | :       | 1               | 1         | ł       |
| Washington          | ł  | 1        | t        | :     | :     | :            | 1          | 1              | ł     | I      | 1       | 1    | ۱.      | <b>1</b>        | :         | 1       |
| Wayne               | ł  | ł        | ;        | -1-   | 1     |              | 1          | ١              | :     | 1      | I       | I    | 1       | 1               | 1         | 1       |
| REGIONAL TOTALS     |    | I        | 1        | 1     | ł     |              | :          | ł              | 1     | ;      | 1       | 1    | 1       | I               | 1         | 1       |
| Northeastern Region |    |          |          | I     |       |              |            |                |       |        |         |      |         |                 |           |         |
| Daggett             | 1  | 1        | :        | 1     | ;     |              | 1          | 1              | ł     | 1      | ı       | :    | 1       | ł               | :         | I       |
| Duchesne            | ł  | ł        | 1        | 1     | 1     | 1            | 1          | 1              | 1     | 1      | ł       | 1    | 1       | :               | ;         | I       |
| Uintah              | :  | 1        | ;        | 1     | I     |              | -1         | 1              | :     | I      | 1       | 1    | 1       | 1               | 1         | 1       |
| REGIONAL TOTALS     | ł  | :        | 1        | 1     | 1     | •            | 1          | :              | 1     | 1      | 1       | I    | 1       | 1               | I         | I       |
| Southeastern Region |    |          |          |       |       |              |            |                |       |        |         |      |         |                 |           |         |
| Carbon              | J  | 1        | :        | :     | ł     |              |            | I              | :     | ł      | ı       | 1    | 1       | I               | I         | 1       |
| Emery               | 4  | 7        |          | 4.00  | 80    | 25           | 40         | <b>20</b>      | 33    | 99     | 60      | ŝ    | ł       | ы               | •         | 1,186   |
| Grand               | ł  | I        | I        | ł     | 1     |              | 1          | 1              | 1     | 1      | 1       | ł    | ł       | :               | 1         | 1       |
| San Juan            | -1 | 1        | I        | 1     | ;     |              |            | 1              | 1     | 1      | 8       | -    | 1       | -               | ∞         | :       |
| REGIONAL TOTALS     | 2  | 2        | 8        | 4.00  | 8     |              | 40         | 50             | 33    | 66     | 150     | 12   | 0       | 3               | 15        | 553     |
|                     |    |          |          |       |       |              |            |                |       |        |         |      |         |                 |           |         |

| Table 6. Summary of the 1991 spring li | <b>1991 spring limite</b> | mited entry Rio Grande turkey season. | turkey season. |          | -            |
|--|---------------------------|---------------------------------------|----------------|----------|--------------|
| Data                                   | Marysvale                 | New Harmony                           | Pine Valley    | Tropic   | STATE TOTALS |
| Permits Sold                           | 5                         | S                                     | S              | Jun I    | 20           |
| <b>Applicants For Permits</b>          | 51                        | 24                                    | 39             | 45       | 159          |
| No Hunts                               | 0                         | 1                                     | 0              | 1        | 7            |
| Hunters Afield                         | S                         | 4                                     | ίν.            | ৾৾৾৾৾৾৾৾ | 18           |
| <b>Average Hunter-Days</b>             | 6.20                      | 4.60                                  | 3.50           | 1.50     | 3.95         |
| <b>Turkeys Bagged</b>                  | 2                         | 3                                     | e              | ŝ        | 11           |
| <b>Percent Success</b>                 | 40                        | 75                                    | 60             | 75       | 61           |
| <b>Turkeys Bagged Per</b>              |                           | · · · · ·                             |                |          |              |
| Hunter-Day                             | 0.32                      | 0.65                                  | 0.86           | 2.00     | 2.78         |
| Age of Harvested Turkeys               |                           |                                       |                |          |              |
| Yearling                               | 0                         | 1                                     | 1              | 1        | 3            |
| Adult                                  | 7                         | 7                                     | 7              | 7        | 80           |
| <b>Reported Crippling Loss</b>         | 0                         | 1                                     | 0              | 0        | -            |
| (Loss/100 Bagged)                      | 0                         | 33                                    | 0              | 0        | 6            |
| Illegal Kills                          | 0                         | 0                                     | 0              | 2        | 2            |
|  |                           |                                       |                |          |              |

## **SHARP-TAILED GROUSE**

### SUMMARY

The Columbian sharp-tailed grouse is one of four species of grouse native to Utah. Sharp-tails were formerly abundant in the valley and foothill areas of northern and central Utah. Sharp-tailed grouse habitats were the most attractive areas for agricultural development and grazing. As a result, sharp-tail habitat was directly converted to farmland or was seriously impacted by heavy grazing.

There was no legal harvest of sharp-tailed grouse from 1980 through 1991. Since 1988, the number of birds present on active dancing grounds has been substantially greater than in recent years (Table 1.). In the last three years several "new" grounds have been located. It appears sharp-tailed grouse have made a moderate recovery in core areas. Numbers on the fringe of their range appear to be low. Concurrent with the upswing in sharp-tailed populations has been a succession of mild winters. Since the catastrophic winter of 1983-84, all winters have been normal or milder than normal except 1988-89.

In Box Elder County, habitat associated with existing populations of sharp-tailed grouse has been relatively unchanged since 1983 except that about 100,000 acres in Box Elder County have been entered into the Conservation Reserve Program (CRP). This may be benefitting sharp-tailed grouse populations by providing undisturbed nesting and brood-rearing cover. The value of CRP to wildlife in Utah is being studied.

We have minimal recent data on sharp-tailed grouse populations in the Cache, Weber, and Morgan County areas. By 1984, populations in these areas were at or below minimum viable population levels. Efforts have increased over the past two years to locate "new" dancing grounds in these counties (Table 1.). New "core" sharp-tailed grouse habitat areas are being attributed to CRP lands in these counties.

Sharp-tailed grouse brood count information for Box Elder County is shown in Table 2.



| No.         Inertial (control 1971)         1971         1993         1964         1964         1964         1964         1964         1964         1964         1964         1964         1964         1964         1964         1964         1964         1974         19   | ÿ            |  |           |       |            |           |          |        |          |       |      |         |              | 1 988  | 1989 1             | 1990  | 1991       |
|---|--------------|--|-----------|-------|------------|-----------|----------|--------|----------|-------|------|---------|--------------|--------|--------------------|-------|------------|
| Name         Name         W1         Production         W1         Production         W1         Production         W1         Production         W1         W1 <th></th> <th>Dancing Ground</th> <th></th> <th>010</th> <th>1070</th> <th>0801</th> <th></th>  |              | Dancing Ground   |           | 010   | 1070       | 0801      |          |        |          |       |      |         |              |        |                    |       |            |
| net         Wast Hilds Camples (Lacred 1971)         11         15         3         0         12         0         13         15         3         0         0         13         15         3         0         0         13         15         3         0         13         15         3         0         13         15         3         0         13         15         3         0         13         13         14         5         9         13  |              |  |           | 8/8   |            |           |          |        |          |       |      |         |              |        |                    |       |            |
| West Hills Complex (Located 1977)       41       -       15       4       -       15       4       -       15       4       -       15       4       -       15       1 <td></td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td>5</td> <td>&lt;</td> <td>14</td> <td>0</td> <td>8</td> <td>46<br/>-</td> <td><del>3</del></td> <td></td> <td></td> <td></td> <td></td>   |              |  |           |       |            | •         | 5        | <      | 14       | 0     | 8    | 46<br>- | <del>3</del> |        |                    |       |            |
| Transfers       Function       Funcion       Funcion <th< td=""><td></td><td>(101 project of second se</td><td>41</td><td>1</td><td>15</td><td>4</td><td>71</td><td></td><td></td><td></td><td>-</td><td>18</td><td>0</td><td>3</td><td>•</td><td>1</td><td>•</td></th<> |              | (101 project of second se   | 41        | 1     | 15         | 4         | 71       |        |          |       | -    | 18      | 0            | 3      | •                  | 1     | •          |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $   | der          | West Hulls Compare (contract of the second s | 13        | 16    | 3          | •         | •        | •      | >        |       |      | { <     | Y            |        | <del>,</del> ~ ~ ~ | 1     | 2          |
| $ \begin{array}{ccccc} \text{south Watter's Valley (Located 1971)} & 12 & 7 & 7 & 19 & 19 & 14 & 5 & 9 & 20 & 20 & 19 & 16^{-1} & 1 \\ \text{Niditle Construction (Located 1971)} & 12 & 7 & 7 & 19 & 19 & 14 & 5 & 9 & 20 & 20 & 19 & 16^{-1} & 1 \\ \text{Percension Values (Located 1991)} & 12 & 7 & 7 & 19 & 19 & 14 & 5 & 9 & 20 & 20 & 19 & 16^{-1} & 1 \\ \text{Percension Values (Located 1991)} & 10 & 12 & 1 & 1 & 1 & 1 & 1 \\ \text{Recovere There (Located 1991)} & 10 & 12 & 1 & 1 & 1 & 1 & 1 \\ \text{Neter (Located 1991)} & \text{Neter (Located 1991)} & 10 & 13 & 11 & 1 & 1 & 1 & 1 & 1 \\ \text{Submitle Ratio Tower (Located 1991)} & 10 & 13 & 11 & 1 & 1 & 1 & 1 & 1 & 1 & 1 &$   |              | Hunsaker's Field (Located 1977)  |           |       | -          | U         | 0        | •      | •        | >     | 4    | >       | , ;          | . :    | 141                | I     | 14         |
| Notice while a value (acted 197) 10 15 0 0 19 14 5 9 20 20 19 16 1<br>Protected values (Located 198) 21 7 7 19 19 14 5 9 20 20 19 16 1<br>Recented values (Located 198) 21 21 21 21 21 21 21 21 21 21 21 21 21  |              | South White's Valley (Located 1977)  | 71        | :     | > <        | , c       | -        | o      | 0        | 0     | 0    | ;       | 18           |        |                    |       |            |
| $ \begin{array}{cccc} \mbox{Middle Carsyne Loreided 1991} & \mbox{2} & \mbox{7} & \mbox{7} & \mbox{7} & \mbox{1} & \mbox{2} & $  |              | Nurth White's Valley (Located 1977)  | 10        | 15    | •          | >         | 2        | ,      | ı        |       |      |         |              |        |                    |       |            |
| $ \begin{array}{ccccc} \mbox{Torrester Scared 199} \\ Torrester Scared 1$   |              | vrille Commen (Lorated 1991)   |           |       |            |           | •        | Ş      | 11       | v     | 0    | 20      | 20           |        |                    |       | t          |
| The created 1991)<br>The created 1991)<br>The created 1991)<br>The created 1991)<br>Macross (Located 1991)<br>Same Targer (Located 1991)<br>Same Located 1991)<br>Name (Located 1991)<br>Name (Located 1991)<br>Same Located 1991)<br>Same Located 1991)<br>Same Located 1991)<br>Same Located 1991)<br>Same Located 1991)<br>The created 1991)<br>Same Located 1991)<br>Same Located 1991)<br>The created 1991)<br>The c   |              |  |           | 42    | -          | •         | 19       | 2      | <b>*</b> | 9     |      |         |              |        |                    |       | \$         |
| Buse Creek (Located 1991)       Nicrowar Tweer (Located 1991)         Nicrowar Tweer (Located 1991)       Nicrowar Tweer (Located 1991)         Sause Trass (Located 1991)       Nicrowar Tweer (Located 1991)         Nicrowar Tweer (Located 1991)       Nicrowar Tweer (Located 1991)         Nation Tower (Located 1991)       Nicrowar Twee (Located 1991)         Substant Viel (Reflection 1995)       8       7       2       0       0       2       2       0       0       2       2       0       0       2       2       0       0       2       2       0       0       2       2       0       0       2       2       0       0       2       2       0       0       2       2       0       0       2       2       0       0       2       2       0       0       2       2       0       0       2       2       0       0       2       2       0       0       2       2       0       2       2       0       2       2       0       2       2       0       2       2       0       2       2       2       2       2       2       2       2       2       2       2       2       2 <td></td> <td>Pocatello Valley Culliples (Located 1719)</td> <td></td> <td>ŝ</td>   |              | Pocatello Valley Culliples (Located 1719)  |           |       |            |           |          |        |          |       |      |         |              |        |                    |       | ŝ          |
| Itowal Valley #1 (Located 1991)Itoware Twee (Located 1991)Sinset Pass (Located 1991)Sinset Pass (Located 1991)Sinset Pass (Located 1991)Sinset Pass (Located 1991)Sinset Pass (Located 1991)Sinset Rige (Relocated 1975)Sunwille Radio Tower (Located 1991)Weltsville-Contrawood (Located 1991)Weltsville-Contrave of (Located 1991)Sunwille Radio Tower (Located 1991)Weltsville-Contrave of (Located 1991)Sunwille Radio Tower (Located 1991)Radio Tower (Located 1991)Conv Mantain Campier (Located 1991)Furth Rige (Relocated 1975)Cardstan (Located 1991)Furt Mile P. (Located 1991)Furt Mile P. (Located 1991)Four Mile P. (Located 1991)Fo  |              | Blue Creek (Located 1991)  |           |       |            |           |          |        |          |       |      |         |              |        | 4                  | ł     | 1          |
| Microwave Twer (Located 1987)<br>Susset Pass (Located 1991)<br>Susset Pass (Located 1991)<br>Susveille Radio Tover (Located 1991)<br>Susveille Radio Tover (Located 1991)<br>Susveille Radio Tover (Located 1991)<br>Susveille Radio Tover (Located 1975)<br>Batter Ridge (Relocated 1975)<br>Batter Ridge (Relocated 1975)<br>Data Core Monatain Cample: (Located 1991)<br>Cardsan (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 1991)<br>Four Mile PI (Located 199  |              | Howell Valley #1 (Located 1991)  |           |       |            |           |          |        |          |       |      | ę       | •            | -      | •                  |       | ā          |
| Subset Pas (Located 1991)<br>Nucor (Located 1991)<br>Suevrille Katio Tover (Located 1991)<br>Suevrille Katio Tover (Located 1975)<br>Rathbad Wal (Relaceded 1975)<br>Suevrille Katio Tover (Located 1979)<br>Suevrille Katio Tover (Located 1979)<br>Rathbad Wal (Relaceded 1975)<br>Rathbad Wal (Relaceded 1975)<br>Rathbad Wal (Located 1991)<br>Four Mile P1 (Located 1991)<br>Four Mile P1 (Located 1991)<br>Four Mile P1 (Located 1991)<br>Four Mile P1 (Located 1991)<br>Four Mile P1 (Located 1991)<br>Four Mile P2 (Located 1991)<br>Four Mile P1 (Located 1991)<br>Four Mile P1 (Located 1991)<br>Four Mile P1 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P1 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)<br>Four Mile P3 (Located 1991)   |              | Attended Tawar (Located 1987)  |           |       |            |           |          |        |          |       |      |         |              |        |                    |       | ِ <b>م</b> |
| Surver like Satio Tower (Located 1991)<br>Nucl (Casted 1991)<br>Suovrille-Ratio Tower (Located 1991)<br>Suovrille-Ratio Tower (Located 1975)<br>Rankbead Well (Relocated 1975)<br>Rankbead Well (Relocated 1975)<br>Rankter Ridge (Relocated 1975)<br>Ratter Ridge (Relocated 1975)<br>Ratter Ridge (Relocated 1991)<br>Corve Montain Complex (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Certamonod (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Located 1991)<br>Four Mile A1 (Loc  |              |  |           |       |            |           |          |        |          |       |      |         |              |        |                    |       | Ξ          |
| Nucre (Located 1991)<br>Subwrite-Ratio Tower (Located 1991)<br>Subwrite-Ratio Tower (Located 1991)<br>Subwrite-Ratio Tower (Located 1975)<br>Baster Bidge (Relocated 1975)<br>Baster Bidge (Relocated 1975)<br>Carkston (Located 1991)<br>Carkston (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1991)<br>Four Mile <i>P</i> (Located 1996) Four Mile Four Mile <i>P</i> (Located 1996) F   |              | Sunset Pass (Located 1994)   |           |       |            |           |          |        |          |       |      |         |              |        |                    |       | ā          |
| Wellsville Contraviol (Located 1991)<br>Snowville Ratio Tower (Located 1975)872200220Ratch Sidge (Relocated 1975)8722002220Ratch Sidge (Relocated 1975)01341132201Ratch Sidge (Relocated 1975)01341132201Ratch Sidge (Relocated 1975)01341132200Crow Mountain Complex (Located 1991)172222001Four Mile #1 (Located 1991)11341122001Four Mile #1 (Located 1991)122222422001Four Mile #1 (Located 1991)12222422001Peep CreekLocated 1991)2222112201Rounder Controllow (Located 1991)2222220011Rounder CreekLocated 1991)722222001Rounder CreekLocated 1991)7222220011Rounder CreekRounder Creek109  |              | Nucor (Located 1991)   |           |       |            |           |          |        |          |       |      |         |              |        |                    |       | 6          |
| Wellsrule- contained 1975Souvrille Ratio Tower (Located 1975)872200 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ò</td></td<>   |              |  |           |       |            |           |          |        |          |       |      |         |              |        |                    |       | ò          |
| Suovrille Ratio Tower (Located 1975)Bankhead Weil (Relocated 1975)872200 <td></td> <td>Wellswille-Cottonwood (Located 1771)</td> <td></td>  |              | Wellswille-Cottonwood (Located 1771)   |           |       |            |           |          |        |          |       |      |         |              |        |                    |       |            |
| Imatcheed Weil (Relocated 1975)872200Baster Ridge (Relocated 1975)0134113Baster Ridge (Relocated 1975)01341130-Crow Montain Camplex (Located 1991)Four Mile #1 (Located 1991)Four Mile #1 (Located 1991)Four Mile #1 (Located 1991)Four Mile #1 (Located 1991)Four Mile #2 (Located 1991)Four Mile #2 (Located 1991)Four Mile #2 (Located 1991)Four Mile #2 (Located 1991)Four Mile #2 (Located 1991)Four Mile #2 (Located 1991)Four Mile #2 (Located 1991)Four Mile #2 (Located 1991)Four Mile #2 (Located 1991)Four Mile #3 (Located 1991)Four Mile #3 (Located 1991)Four Mile #3 (Located 1991)Four Mile #3 (Located 1991)Four Mile #3 (Located 1991)Four Mile #3 (Located 1991)Four Mile #3 (Located 1991)For Mile #3 (Located 1992)For Mile #3 (Located 1993)For Mile #3 (Located 1993)<   |              | Snowville-Radio Tower (Located 1991)   |           |       |            |           |          |        |          |       |      |         |              | -      |                    |       | Z          |
| Inalthead Weil (Relocated 1975)87220000000000-1010101010101010  |              |  |           |       |            |           |          |        |          |       | 1    | ;       | ı            | I      | 1                  | :     | 2          |
| Bankhead Well (Relocated 1975) $0$ $ 3$ $5$ $3$ $         -$  |              |  | 0         | •     | 2          | -1        | •        | •      | 1        | 1     | l    |         | ł            | ł      | ı                  | 1     | Z          |
| $\begin{array}{c cccc} \text{Baster Ridge (Relocated 1975)} & 0 & - & - & - & - & - & - & - & - & -$  |              | Bankhead Well (Relocated 1973)   |           |       |            |           | W        | •      | ;        | 1     | ı    | ŀ       | ł            |        |                    |       | 5          |
| Earcer forger (accreted 1971)       0       13       4       11       3       -       -       0         High Creek (Located 1991)       Clarkstan (Located 1991)       Four Mile #1 (Located 1991)       -       -       -       -       0         Four Mile #1 (Located 1991)       Four Mile #1 (Located 1991)       -       -       -       -       -       -       0         Four Mile #2 (Located 1991)       Four Mile #2 (Located 1991)       20       22       28       -   | 2            | m to medica (Dislagated 1075)  | ¢         | ł     | I          | o         | 2        | , ,    |          |       | I    | 1       | ł            | •      | ı                  |       | í          |
| Crow Mountain Complex (Located 1971)High Creek (Located 1981)Four Mile #1 (Located 1991)Four Mile #1 (Located 1991)Four Mile #1 (Located 1991)Four Mile #2 (Located 1991)Four Mile #2 (Located 1991)Four Mile #2 (Located 1991)Rep CreekMonastery (Located 1991)Monastery (Located 1969)AMonastery (Located 1969)AMonastery (Located 1969)AMonastery (Located 1969)AMonastery (Located 1960)AMonastery (Located 1960)AMonastery (Located 1960)AASagebrachIcounted <td></td> <td>Baxter Kuge (neuwared 1973)</td> <td></td> <td>•</td> <td>13</td> <td>4</td> <td>11</td> <td>ri)</td> <td>1</td> <td>ł</td> <td>l</td> <td></td> <td></td> <td>•</td> <td>l</td> <td>1</td> <td>2</td>  |              | Baxter Kuge (neuwared 1973)  |           | •     | 13         | 4         | 11       | ri)    | 1        | ł     | l    |         |              | •      | l                  | 1     | 2          |
| High Creek (Located 1981)<br>Clarkston (Located 1991)<br>Four Mile #1 (Located 1991)<br>Four Mile #2 (Located 1991)<br>Four Mile #2 (Located 1991)<br>Four Mile #2 (Located 1991) $20$ $22$ $28$ $   -$ <th< td=""><td></td><td>Crow Mountain Complex (Located 1979)</td><td></td><td>ė</td><td>1</td><td></td><td>r</td><td>۱</td><td>I</td><td>1</td><td>:</td><td>1</td><td>•</td><td>•</td><td></td><td></td><td>č</td></th<>   |              | Crow Mountain Complex (Located 1979)   |           | ė     | 1          |           | r        | ۱      | I        | 1     | :    | 1       | •            | •      |                    |       | č          |
| High Creek (Located 1991)<br>Four Mile # (Located 1991)<br>Four Mile # (Located 1991)<br>Four Mile # (Located 1991)<br>Four Mile # (Located 1991)202228Cottantwood (Located 1975)<br>Deep Creek<br>Deep Creek202228Cottantwood (Located 1991)<br>Deep Creek<br>Domaan Hollow (Located 1991)202228   |              | ······································   |           |       |            |           | -        |        | •        |       |      |         |              |        |                    |       | 5          |
| Clarkston (Located 1991)<br>Four Mile #1 (Located 1991)<br>Four Mile #2 (Located 1991)<br>Four Mile #2 (Located 1975) $20$ $22$ $28$ $         -$   |              | High Creek (Located 1701)  |           |       |            |           |          |        |          |       |      | •       |              |        |                    |       | ŝ          |
| Four Mile #1 (Located 1991)Four Mile #2 (Located 1991)Four Mile #2 (Located 1975)Contourwood (Located 1975)Deep CreekBehman Hollow (Located 1991)Monastery (Located 1991)Monastery (Located 1991)Monastery (Located 1969)AAAMonastery (Located 1969)Monastery (Located 1991)Monastery (Located 1969)AMonastery (Located 1960)Monastery (Located 1960)AMonastery (Located 1960)AMonastery (Located 1960)Monastery (Located 1960)AMonastery (Located 1960)AMonastery (Located 1960)AMonastery (Located 1960)AMonastery (Located 1960)AAMonastery (Located 1960)AAMonastery (Located 1960)AA <t< td=""><td></td><td>Clarkston (Located 1991)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>۲</td></t<>   |              | Clarkston (Located 1991)   |           |       |            |           |          |        |          |       |      |         |              |        |                    |       | ۲          |
| Four Mile #2 (Located 1975)202228   |              |  |           |       |            |           |          |        |          |       |      |         |              |        |                    |       | r          |
| Four Mile #2 (Located 1971)Four Mile #2 (Located 1975)2021Cottanwood (Located 1975)202023Deep CreekBohman Hollow (Located 1991)Monastery (Located 1969)AABBBB <t< td=""><td></td><td>FOUR MIRE # 1 (LOCATED LA 2007)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>,</td><td></td><td></td><td></td><td></td><td></td></t<>  |              | FOUR MIRE # 1 (LOCATED LA 2007)  |           |       |            |           |          |        |          |       |      | ,       |              |        |                    |       |            |
| Cottonwood (Located 1975)202228<  |              | Four Mile #2 (Located 1991)  |           |       |            |           |          |        |          |       |      |         |              |        |                    | 1     | Z          |
| Cottonwood (Located 1975)202228Deep Creek<br>Bohman Hollow (Located 1991)Monastery (Located 1969)AA300Monastery (Located 1969)AA3000Monastery (Located 1969)AA3000moust Counted1041027124573128529849080e Number of Groutse/Ground10.4011.304.701.563.402.102.502.6014.0011.306.70sagebrush precluded an accurate count-birds were counted when flushed.visitation by females at any given time is low, an estimated 90% of the grouse seen on the ground are males.  |              |  |           |       | :          |           |          | 1      | 1        | 1     | 1    | 1       | 1            | 1      | 1                  |       |            |
| Containwout traceact 1991) $4$ $    -$ Deep Creek<br>Bohman Hollow (Located 1969) $A$ $A$ $3$ $0$ $0$ $   -$ Monastery (Located 1969) $A$ $A$ $3$ $0$ $0$ $0$ $    -$ Monastery (Located 1969) $A$ $A$ $A$ $3$ $0$ $0$ $0$ $    -$ monastery (Located 1969) $100$ $10$ $9$ $15$ $16$ $17$ $15$ $11$ $2$ $8$ $90$ $80$ rouse Counted $104$ $102$ $71$ $24$ $57$ $31$ $28$ $5$ $29$ $84$ $90$ $80$ rouse Counted $10.40$ $11.30$ $4.70$ $1.50$ $2.10$ $2.50$ $2.60$ $14.00$ $11.30$ $6.70$ sagebrush precluded an accurate count-birds were counted when flushed.visitation by females at any given time is low, an estimated 90% of the grouse seen on the ground are males.   |              | c  | 2         | 11    | 28         | ı         | ı        | ł      |          |       | ;    | 1       | 1            | 1      | 1                  | I     | -          |
| Deep CreekBohman Hollow (Located 1991)Bohman Hollow (Located 1969)AA3000Monastery (Located 1969)AA3000Monastery (Located 1969)AA3000Monastery (Located 1969)AAA3000rounds Counted10915161715112123332389080rounded10.4011.304.701.503.402.102.502.6014.0011.306.70sagebrush prechded an accurate count-birds were counted when flushed.S3.402.102.502.6014.0011.306.70visitation by females at any given time is low, an estimated 90% of the grouse seen on the ground are males.  | gan          | Cottonwood (Lucaula 1779)  |           |       |            | 4         | 1        | 1      | ł        | 1     | 1    |         |              |        |                    |       | -          |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $   | 6            | Deen Creek   |           |       |            |           |          |        |          |       |      |         |              |        |                    |       |            |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$   |              |  |           |       |            |           |          |        |          |       |      |         |              |        |                    |       |            |
| ited 1969)         A         3         0         0         0         -  |              | Bohman Hollow (Located 1771)   |           |       |            |           |          |        |          |       |      |         |              |        | I                  | ı     |            |
| ted [969)         A         3         5         10         17         15         11         2         8         12           10         9         15         16         17         15         11         2         84         90         80           104         102         71         24         57         31         28         5         29         84         90         80           rate count-birds were counted when flushed.         10.40         11.30         4.70         1.50         3.40         2.10         2.50         2.60         14.00         11.30         6.70         5           rate count-birds were counted when flushed.         5         0         2.50         2.50         2.60         14.00         11.30         6.70         5           reaction is low, an estimated 90% of the grouse seen on the ground are males.         5         5         2.60         14.00         11.30         6.70         5   |              |  |           |       | •          | 4         | -        | 0      | ;        | :     | ;    | •       | ŀ            | ۱<br>ا | ;                  | -     |            |
| number of 10         9         15         16         17         15         11         28         5         29         84         90         80           104         102         71         24         57         31         28         5         29         84         90         80           10.40         11.30         4.70         1.50         3.40         2.10         2.50         2.60         14.00         11.30         6.70           rate count-birds were counted when flushed.  |              | 10401 (Tontand 1)  | <         | V     | ~          |           | ,<br>    | ,   ;  |          | 5     | Ξ    | ý       | *            | 12     | Π                  | 4     |            |
| 104         102         71         24         57         31         28         5         29         84         70         6.70         71           rate count-birds were counted when flushed.         10.40         11.30         4.70         1.50         3.40         2.10         2.50         2.60         14.00         11.30         6.70         5.00  | er           | Monastery (LANated 1707)   | 9         | 9     | 15         | 16        | 11       | 15     | н        | 4     |      |         | UO           | 80     | 11                 | 86    | 236        |
| 104 102 /1 29 4.70 1.50 3.40 2.10 2.50 2.50 14.00 11.30 6.70 rate count-birds were counted when flushed.  | d Grounds (  | Counted  |           |       | ī          | PC.       | 5        | 31     | 28       | 'n    | 67   | 40      | R            |        | 00 0               | 42 00 | 13.00      |
| 10.40 11.30 4.70 1.50 3.40 2.10 4.20 to trace count-birds were counted when flushed.  |              |  | 104       | 102   |            | ł         | 5        |        | 1 50     | 3 S.N | 2.60 | 14.00   | 11.30        | 6.70   | 00.1               |       | 1          |
| rate count-birds were counted when f<br>iven time is low, an estimated 90% of   | d Grouse C   |  | 10.40     | 11.30 | 4.70       | 1.50      | 3.40     | 7.10   | 00.4     |       |      |         |              |        |                    |       |            |
| rate count-birds were counted when I<br>iven time is low, an estimated 90% of<br>iven and som the eround.   | rage Numbe   | er of Grouse/Ground  |           |       |            |           |          |        |          |       |      |         |              |        |                    |       |            |
|   | 196          | to come hirde were COIR  | nted when |       |            |           |          |        |          |       |      |         |              |        |                    |       |            |
|   | igh sagebru  | sh precluded an accurate countries and a section   | 1         |       | nse seen ( | on the gr | ound are | males. |          |       |      |         |              |        |                    | ,     |            |
|   | re visitatio | n by females at any given time is low, an estuna   | 160 XV X  |       |            | ۶<br>۱    |          |        |          |       |      |         |              |        |                    |       |            |
|   |              | c c is an actimate of the males on the groun   | ď.        |       |            |           |          |        |          |       |      |         |              |        |                    |       |            |

A = ACTIVE N/A = NOT ACTIVE

| Finals,<br>total         Mean         & Andits,<br>Andits, Vinueg         Andits, Vinueg         Andits, Vinueg         Itera of<br>total         Tends,<br>Veneg         Tends,<br>Tena         Tenas         Effect           7         7         7         3         4.57         4         6         19         38         121         -         2         2         -         2         2         -         2         2         -         2  | Distinct   |   | Distinct | cr<br>tr  |           | Mixed Young | Volue |            |        |       |            |            |         |          |            |       |        |
|---|--|---|----------|-----------|-----------|-------------|-------|------------|--------|-------|------------|------------|---------|----------|------------|-------|--------|
| and the final   | Kegion and<br>Constv   |   | Brood    | <b>\$</b> | _         | & Ad        | •     | Adults w/o | Total  | Total |            | 1.1.1      |         |          |            |       |        |
| 7     7     3     457     4     6     19     36     137     - <t< th=""><th>Northern Region</th><th></th><th>Adults</th><th>s Young</th><th></th><th>Adults</th><th></th><th>Young</th><th>Adults</th><th>Young</th><th>100 Adults</th><th><u>, '</u></th><th>Vahiola</th><th>Hours of</th><th>Effort</th><th></th><th>Birds/</th></t<>   | Northern Region  |   | Adults   | s Young   |           | Adults      |       | Young      | Adults | Young | 100 Adults | <u>, '</u> | Vahiola | Hours of | Effort     |       | Birds/ |
| 0MLS     7     7     3     457     4     6     19     30     38     127       | Box Elder  |   | 7        | 22        | 4 67      | •           |       |            |        |       |            | 1          |         | TIOISE   | Walk       | Total | H 001  |
| 07ALS     7   | Cache  | 1 | 1        | 5 1       | ř.        | 7           | \$    | 19         | 30     | 38    | 127        | ł          | I       | . 20     |            | ų     | į      |
| 07ALS     7     7     3     4.57     4     6     99     38     127     2     2     2       1     7     3     4.57     4     6     99     38     127     2     2     2       1     1     3     4.57     4     6     99     38     127     2     2     2       1     1     3     4.57     4     6     99     38     127     2     2     2       1     1     3     4.57     4     6     99     38     127     2     2     2       1     1     3     4.57     4     6     99     38     127     2     2     2       1     1     3     4.57     6     99     38     127     2     2     2       1     1     3     4.57     6     99     38     127     2     2     2   | Davis  | ł | I        | ł         | I         | ł           | 1     | ł          | ł      | :     | I          | ı          | ı       | 2        | I          | Ş     | 212    |
| 01ALS     7     7     3     457     6     9     36     127     -     -     -     -       01ALS     7     3     457     4     6     9     36     127     -     25     2     2     2       01ALS     NOT APPLICABLE     NOT APPLICABLE     NOT APPLICABLE     NOT APPLICABLE     NOT APPLICABLE     NOT APPLICABLE       MALS     NOT APPLICABLE     NOT APPLICABLE     NOT APPLICABLE     NOT APPLICABLE       MAS     1     7     3     457     4     6     9     36     127     -     25     2     2   | Morgan   | 1 | 1        | 4         | :         | ı           | ł     | ;          | ł      | 1     | ł          | 1          | 1       | ł        | 1          | 1     | ł      |
| 07MLS     7     7     3     4.57     4     6     19     30     38     127     -   | Rich   | ł | ł        | ł         | ł         | 1           | ;     | ł          | 1      | ł     | I          | ł          |         | ı        | 1          | ı     | ł      |
| OTALS     7     7     3     457     4     6     19     30     38     127     2     25     2       NOT APPLICABLE  | Suramit  | ł | ł        | 1         | ı         | <b>!</b>    | ł     | 1          | 1      | I     | ł          |            | 1       | ı        | I          | t     | ł      |
| <u>OTALS 7 7 31 4.57 4 6 19 30 38 127 - 8 25 25 25 25 25 25 25 25 25 25 25 25 25 </u>   | Veher  | ł | I        | I         | ł         | ł           | ;     | 1          | ;      | 1     | ļ          | ;          | :       | 1        | I          | 1     | 1      |
| UNLS 7 7 3 457 4 6 19 30 8 127 - 25 - 25<br>NOT APPLICABLE<br>NOT APPLICABLE  | PUINTI BOBIE -   |   | •        | ;         | ł         | ı           | ł     | ł          |        | ł     | ł          | J          | ł       | ı        | ;          | ł     | 1      |
| NOT APPLICABLE<br>NOT APPLICABLE<br>NOT APPLICABLE<br>NOT APPLICABLE<br>NOT APPLICABLE<br>MAIS<br>NOT APPLICABLE<br>NOT APPLICABLE<br>ALS<br>NOT APPLICABLE<br>NOT APPLICABLE<br>NOT APPLICABLE<br>Set 1 3 457 4 6 19 38 127 25 23  | entral Design  | - | -        | 32        | 4.57      | 4           | 0     | 19         | 8      | ;   ? |            | 1          | ,       | ,        | 1          | ł     | ;      |
| NOT APPLICABLE<br>NOT APPLICABLE<br>NOT APPLICABLE<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>FALS<br>F | under and the second second second second second second second second second second second second second second  |   |          |           |           |             |       |            |        | 5     |            | ,          | ,       | 52       | 1          | 25    | 212    |
| NOT APPLICABLE<br>NOT APPLICABLE<br>NOT APPLICABLE<br>FIALS<br>FOR<br>FOR<br>NOT APPLICABLE<br>FOR<br>NOT APPLICABLE<br>MOT APPL  | alt I also   |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE MAIS N  |  |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| NOT AFPLICABLE<br>NOT AFPLICABLE<br>FALS<br>BOIN<br>NOT AFPLICABLE<br>INLS<br>NOT AFPLICABLE<br>INLS<br>NOT AFPLICABLE<br>ALS<br>NOT AFPLICABLE<br>ALS<br>NOT AFPLICABLE<br>ALS<br>ST 4 6 19 30 38 127 2 2 2  | mpete  |   |          | -         | NOT APPL  | ICABLE      |       |            |        |       |            |            |         |          |            |       |        |
| NALS<br>NOT APPLICABLE<br>NOT APPLICABLE<br>Ein<br>NOT APPLICABLE<br>MALS<br>NOT APPLICABLE<br>MALS<br>NOT APPLICABLE<br>AALS<br>NOT APPLICABLE<br>AALS<br>NOT APPLICABLE<br>AALS<br>NOT APPLICABLE<br>NOT  | poele  |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| 07ALS     NOT APPLICABLE       NOT APPLICABLE     NOT APPLICABLE       FALS     NOT APPLICABLE       Bion     NOT APPLICABLE       ALS     NOT APPLICABLE   |  |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| DTALS<br>NOT APPLICABLE<br>NOT APPLICABLE<br>Ein<br>Ein<br>NOT APPLICABLE<br>MALS<br>NOT APPLICABLE<br>ALS<br>NOT APPLICABLE<br>ALS<br>NOT APPLICABLE<br>ATS<br>NOT APPLICABLE<br>ATS<br>NOT APPLICABLE<br>ATS<br>NOT APPLICABLE<br>NOT APPLICABLE<br>ATS<br>NOT APPLICABLE<br>NOT APPLI  | asatch   |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| n<br>NOT APPLICABLE<br>TALS<br>NOT APPLICABLE<br>MALS<br>NOT APPLICABLE<br>ALS<br>NOT APPLICABLE<br>ALS<br>NOT APPLICABLE<br>ALS<br>Sign<br>NOT APPLICABLE<br>ALS<br>Sign<br>NOT APPLICABLE<br>Sign<br>NOT APPLICABLE<br>ALS<br>Sign<br>NOT APPLICABLE<br>Sign<br>NOT APPLICABLE  | EGIONAL TOTALS   |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| NOT APPL/CABLE<br>TALS<br>FIALS<br>BOIN<br>BOIN<br>NOT APPL/CABLE<br>ALS<br>NOT APPL/CABLE<br>ALS<br>NOT APPL/CABLE<br>ALS<br>NOT APPL/CABLE<br>ALS<br>SOM<br>NOT APPL/CABLE<br>ALS<br>SOM<br>NOT APPL/CABLE<br>ALS<br>SOM<br>SOM<br>SOM<br>SOM<br>SOM<br>SOM<br>SOM<br>SOM<br>SOM<br>SO  | Ithern Renion  |   |          |           |           |             |       |            |        | ŀ     |            |            |         |          |            |       |        |
| NOT APPLICABLE<br>FALS NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE ALS NOT APPLICABLE ALS ALS ALS ALS ALS ALS ALS ALS ALS ALS  | aver   |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| NOT APPLICABLE<br>TALS NOT APPLICABLE<br>INT NOT APPLICABLE<br>ALS NOT APPLICABLE<br>ALS NOT APPLICABLE<br>ALS 2 4.57 4 6 9 30 38 127 2 25 25   | arei<br>mfald  |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| NOT APPLICABLE         TALS   | Diarri   |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| TALS       NOT APPLICABLE         Bion       NOT APPLICABLE         ALS       NOT APPLICABLE         One       NOT APPLICABLE         ALS       NOT APPLICABLE         ALS       NOT APPLICABLE         ALS       NOT APPLICABLE         ALS       NOT APPLICABLE   | Ĩ  |   |          |           |           |             |       |            |        |       |            |            |         |          | •          |       | •      |
| TALS       TALS         Bion       NOT APPLICABLE         ALS       NOT APPLICABLE  | the  |   |          | Z         | IOT APPLE | CARLE       |       |            |        |       |            |            |         |          |            |       |        |
| TALS         FIALS         Bion         NOT APPLICABLE         ALS         International         ALS         ALS         ALS         ALS         ALS         International         ALS  | llard  |   |          |           |           |             |       |            |        |       |            |            |         |          | ,          |       |        |
| TALS<br>Find the second s  | te   |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| TALS       TALS         Bion       NOT APPL/CABLE         ALS       NOT APPL/CABLE         ion       NOT APPL/CABLE         ALS       NOT APPL/CABLE         ion       NOT APPL/CABLE         ALS       1         ALS       1         ALS       1         ALS       1         ALS       1   | ier  |   |          |           |           |             |       |            |        |       | ·          |            |         |          |            |       |        |
| TALS       NOT APPLICABLE         NOT APPLICABLE       NOT APPLICABLE         ALS       NOT APPLICABLE         ion       NOT APPLICABLE         ALS       1   | shington   |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| TALS       NOT APPLICABLE         NOT APPLICABLE       NOT APPLICABLE         ALS       NOT APPLICABLE         ion       NOT APPLICABLE         ALS   | , International Contraction of the second seco |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| Fals     NOT APPLICABLE       FALS     NOT APPLICABLE       fold     NOT APPLICABLE       fold     NOT APPLICABLE       fold     NOT APPLICABLE   | CIONAL TOTAL O   |   |          |           |           |             | Ţ     |            |        |       |            |            |         |          |            |       |        |
| Bota     NOT APPLICABLE       FALS     NOT APPLICABLE       fold     NOT APPLICABLE       fold     NOT APPLICABLE       fold     NOT APPLICABLE       fold     NOT APPLICABLE       ALS     NOT APPLICABLE  | CURIOT DURING  |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| NOT APPLICABLE         falls  | ureastern kegion   |   |          |           |           |             |       |            |        |       |            |            | .       |          |            |       |        |
| NOT APPL/ICABLE         foil       NOT APPL/ICABLE         ALS       NOT APPL/ICABLE         7       7       32       4.57       4       6       19       38       127       -       25       -       25  | gett   |   |          |           |           |             |       |            |        | -     |            |            |         |          |            |       |        |
| FALS     Initial State       foin     NOT APPLICABLE       ALS     Initial State       7     7     32     4.57     4     6     19     38     127     -     25     -     25  | hesne  |   |          | ž         | ОТ АРРГИ  | A DT D      |       |            |        |       |            |            |         | •        |            |       |        |
| FALS  | tah  |   |          |           |           | andre       |       |            |        |       |            |            |         |          |            |       |        |
| ion<br>NOT APPLICABLE<br>ALS<br>7 7 32 4.57 4 6 19 30 38 127 - 25 - 25  | GIONAL TOTALS  |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| NOT APPLICABLE<br>ALS<br>7 7 32 4.57 4 6 19 30 38 127 - 25 - 25   | Theastern Review   |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| ALS     NOT APPLICABLE       7     7     32     4.57     4     6     19     30     38     127     -     25     -     25   | him ang ang ang ang ang ang ang ang ang ang  |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| ALS NOT APPLICABLE<br>7 7 32 4.57 4 6 19 30 38 127 - 25 - 25  | Thing  |   |          |           |           |             |       |            |        |       |            |            |         |          | ,<br> <br> |       |        |
| ALS 7 7 32 4.57 4 6 19 30 38 127 - 25 - 25  | ,<br>Au  |   |          | ž         | DT APPLIC | ABLE        |       |            |        |       |            |            |         |          |            |       |        |
| ALS 7 7 32 4.57 4 6 19 30 38 127 - 25 - 25  | 190  |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| ALS 7 7 32 4.57 4 6 19 30 38 127 - 25 - 25  | Juan   |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
| 7 7 32 4.57 4 6 19 30 38 127 - 25 - 25  | FIONAL TOTALS  |   |          | .         |           |             |       |            |        |       |            |            |         |          |            |       |        |
| <u></u>   |  | - | .        | 1         |           |             |       |            |        |       |            |            |         |          |            |       |        |
|   |  |   |          | .         |           |             |       |            |        |       |            |            |         |          | ľ          |       |        |
|   |  |   |          |           |           |             |       |            |        |       |            |            |         |          | 8          |       | -      |
|   |  |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |
|   |  |   |          |           |           |             |       |            |        |       |            |            |         |          |            |       |        |

## PTARMIGAN

### SUMMARY

The white-tailed ptarmigan (Lagopus leucurus) was introduced into the Uinta Mountains of northeastern Utah in 1976 with the release of birds captured in Colorado. The initial transplant consisted of 22 paired birds released in June 1976. A second release of 35 mixed young and adults was accomplished in September of that same year.

### Breeding Territory and Brood Surveys

Surveys on the ptarmigan population continue. Two survey techniques are used. A breeding territory survey is conducted from mid- to late June. A brood survey is conducted from mid- to late August. Results of the last 10 and 11 years of survey data are found in Tables 1 and 2.

The 1990-91 winter was relatively mild in northeastern Utah.

No spring survey of breeding territories was made in 1991.

Brood surveys were conducted in the Painter and Atwood Basin drainages. One brood was observed. Brood size was 2.00 young. Survey conditions were poor due to rainy weather.

#### Harvest

Fifteen hunters bought \$2.00 permits to hunt ptarmigan in Utah in 1991 (Table 3). An estimated 13 hunters actually pursued ptarmigan and 26 birds were killed. This is the most birds harvested since 1984. Hunter success was 1.63 birds bagged per hunter-day. Fifty percent of the hunters afield reported observing ptarmigan.

Many permits are obtained by sportsmen who think they might hunt during a fishing or elk hunting trip, but don't seriously plan on the ptarmigan hunt.



PT ARE BAR

|          | (6/12-14) (6/16-17) (6/18 | (6/12-14) | ((1-91/9) |      | (6/18-19) |        |                    |      | 0007       | 1000/3) | 1000        | 1991       |
|----------|---------------------------|-----------|-----------|------|-----------|--------|--------------------|------|------------|---------|-------------|------------|
| County 1 | Location                  | 1981      | 1982      | 1983 | 1984      | 1985   | 1986               | 1961 | 1900       | 1702(1) |             |            |
| Duchesne | Painter Basin             |           |           | . :  |           | v      |                    | •    | . '        |         |             | r          |
| Duchesne | Gilbert Basin             | ·         |           | C(I) | i         | C(1)   | C(I)               | . '  | z o        |         | z o         | z o        |
| Duchesne | Atwood Basin              | • •       | ·. ,      |      |           | zυ     | Z U                |      | Ś          |         | ŝ           | <b>s</b> ; |
| Duchesne | Yellowstone River         |           |           |      | ۰.<br>۱   |        | ਸ਼ <sup>ੇ</sup> 'ਤ |      | d<br>R     |         |             | d M.       |
| Summit   | Henry's Fork              |           |           | L R  |           | ы<br>Ц | <u>,</u><br>В      |      | > 23       | • .     | > ⊠ ∶       | > Ei ;     |
| Summit   | Flat Top Mountain         |           |           | A    | 1         | Ð      | ۵                  | n.   | <b>X</b> . | ۰ .     | <b>&gt;</b> | <b>X</b>   |
| Summit   | Lake Blanchard            | 7         |           |      |           |        |                    |      | ı          |         |             | • .        |
| Summit   | Beaver Creek              |           | ¢         |      |           |        |                    |      |            |         |             |            |
| Summit   | Smith's Fork              |           |           | • į  |           |        | · · · · ·          |      |            |         | ·           |            |
| Ušntab   | ljintah Leidy Peak        |           |           |      |           |        |                    |      |            | ·       |             | , .        |

. :

1

(2) Investigator was incapacitated.

| Table 2. White-tailed ptarmigan brood | ood inventory, 1982-91 | -91.       |            |            |      |      |            |      |      |            |
|---------------------------------------|------------------------|------------|------------|------------|------|------|------------|------|------|------------|
|                                       |                        |            |            | DATE       |      |      |            |      |      |            |
| <b>Matistics</b>                      | 8/17-30/82             | 8/23-30/83 | 8/26-28-84 | 8/14-22/85 | 8/8  | 8/8  | 8/25-31/88 | 8/80 | 8/90 | 8/01       |
| Paintar Racin                         | į                      |            |            |            |      |      |            |      |      |            |
|                                       | (q)                    | <b>9</b>   |            |            |      |      |            |      |      |            |
| -                                     | •                      | 7          | 1          | £          | I    | I    | ł          |      |      |            |
| Mean Brood                            |                        | 4.50       | I          | I          | ı    | I    | ļ          | 1    | I    | 1          |
| Young/100 Adult Hens                  |                        | 450        | I          |            |      | I    | 1          | I    | 1    | I          |
| Hens w/o Broods                       |                        |            | I          | 1          | 1    | ł    | 1          | 1    | ł    | ı          |
| Adult Malee                           |                        |            | ł          | 1          | I    | ł    | ł          | ı    | ı    | 1          |
|                                       |                        | -          | I          | 1          | 1    | ł    | I          | ł    |      |            |
| Henry's Fork                          |                        |            |            |            |      |      |            |      | ,    | 1          |
|                                       |                        |            |            |            |      |      | (e)        |      |      |            |
|                                       | •                      | 0          | •          | ł          | 4    | 3    | ) ल        | I    |      |            |
| Mean Brood                            |                        |            | 1          | ı          | 3.75 | 4.00 | 2.33       |      | I    | I          |
| I COMP/ IVV Adult Heas                |                        |            | ł          | 1          | 375  | 217  | EL.        | I    | I    | I          |
| Hens w/o Broods                       |                        |            | I          | 1          | G    |      | <b>1</b>   | 1    | I    | ı          |
| Adult Males                           |                        |            | I          | ł          | •    | 5    | 5          | I    | 1    | ۱          |
|                                       |                        |            |            |            |      | 1    |            | 1    | ł    | J          |
| Yellowstone                           |                        |            |            |            |      | ·.   |            |      |      |            |
| ч                                     |                        | I          | I          |            |      |      |            |      |      |            |
| Mean Brood                            | 4.25                   | l          | I          | 1          | I    | ł    |            | 9    | •    | ı          |
| Young/100 Adult Hens                  | Ì I                    | I          | 1          | I          | 1    | ı    |            | 4.00 | 4.00 | . <b>1</b> |
| Hens w/o Brands                       | l                      | 1          | 1          | I          | I    | I    |            | 366  | 400  | 1          |
| Adult Males                           | I                      | I          | i          | I          | 1    | 1    |            | 4    | •    | :          |
| Country of announ                     | 1                      | 1          | 1          | 1          | '    | 1    |            | 18   | • •  | ı          |
| 0241-121                              |                        |            |            |            |      |      |            |      |      |            |
| Autor S Fork                          | Ð                      | 9          |            |            |      |      |            | ·    |      |            |
|                                       | Ņ                      | -          | 1          | I          | Π    |      |            |      |      |            |
| Mean Brood                            |                        | 3.50       | 6.00       | I          | 1    | 6.00 |            | r    | 1    | 1          |
| Young/1W Adult Hens                   |                        | 350        | 300        | 1          | ł    | 110  |            | 1    | 1    | ı          |
| llens w/o Broods                      |                        | 0          | -          | I          | I    | A71  |            | ł    | I    | I          |
| Adult Males                           | 0                      | c          | ( )        | ł          | I    | +    |            | 1    | 1    | I          |
|                                       |                        | ,          |            | ,          | ,    |      |            | ,    | ı    | T          |
| Atwood Basin                          |                        |            |            |            |      |      |            |      |      |            |
|                                       | ı                      | ı          | I          |            |      |      |            |      |      |            |
| Mean Brood                            | ł                      | ·          | I          | ł          | ł    |      |            | 1    | I    | 1          |
| Young/100 Adult Hens                  | 1                      | 1 I        | ı          | 1          | I    |      |            | ı    | I    | 2.00       |
| Hens w/o Broods                       | -                      | l          | ł          | I          | ı    |      |            | ı    | ł    | 200        |
| Adult Males                           | I                      | 1          | ł          | 1          | ı    |      |            | 1    | I    | 0          |
|                                       | •                      | 1          | 1          | 1          | :    |      |            | 1    | 1    | -          |
|                                       |                        |            |            |            |      |      |            |      |      |            |

| Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill         Mill         Mill           Mill         Mill         Mill         Mill   |                           |                                       |            |       |              |            |            |            |            |            |        |          |                                       |               |   |
|--|---------------------------|---------------------------------------|------------|-------|--------------|------------|------------|------------|------------|------------|--------|----------|---------------------------------------|---------------|---|
| Matteriol         DATR   |                           | · · · · · · · · · · · · · · · · · · · | •<br>• • • | а.    | :            |            |            |            |            |            | ` .    | ·<br>· · | •                                     | 2<br>22<br>24 |   |
| Indication         IAATE         IAATE <thiiiiiiiiiiiiiiiiiiiiiiiiiiiii< th=""><th></th><th></th><th></th><th>, ,</th><th></th><th></th><th>;</th><th></th><th>-</th><th></th><th></th><th>ر •</th><th>· · · · · · · · · · · · · · · · · · ·</th><th></th><th>[</th></thiiiiiiiiiiiiiiiiiiiiiiiiiiiii<>  |                           |                                       |            | , ,   |              |            | ;          |            | -          |            |        | ر •      | · · · · · · · · · · · · · · · · · · · |               | [ |
| Matrix full         Extra column         Extra column </th <th>le 2. (contineed)</th> <th></th> <th></th> <th></th> <th>DATE</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>ı</th> <th>:</th>   | le 2. (contineed)         |                                       |            |       | DATE         |            |            |            |            |            |        |          |                                       | ı             | : |
| formation         1  | Area:<br>Statistics       |                                       |            |       | 8/14-22/85   |            |            | •          |            | 1613       |        | I        |                                       |               | 4 |
|  |                           |                                       |            | · · · | ×            |            | 9          |            |            |            |        |          |                                       |               |   |
| 600       600       600       630       433         1011 [Sime       600       433       1       1         1011 [Sime       600       433       1       1       1         1011 [Sime       600       433       1       1       1       1       1       1         1011 [Sime       600       600       633       1 <td>. Top Mountain</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td><b>6</b>0</td> <td>1</td> <td>ı</td> <td>1</td> <td>,</td> <td>,</td> <td></td> <td></td> <td></td>   | . Top Mountain            |                                       |            |       |              | -          | <b>6</b> 0 | 1          | ı          | 1          | ,      | ,        |                                       |               |   |
| Abili Elem       Abili Elem <td>n Broed</td> <td></td> <td></td> <td>6.00</td> <td></td> <td>2</td> <td>. 9<br/>57</td> <td>ŀ</td> <td>1</td> <td>1</td> <td></td> <td></td> <td></td> <td>,</td> <td></td>  | n Broed                   |                                       |            | 6.00  |              | 2          | . 9<br>57  | ŀ          | 1          | 1          |        |          |                                       | ,             |   |
| 40       -   | ng/100 Adult Hens         |                                       |            |       |              | <b>3</b> - |            | <b>1 1</b> | 1 1        | 1 1        |        |          |                                       |               |   |
| I. Black, Pork         I. Black, Pork         Add Blaan  | s wie Brosds              |                                       |            | -     |              |            |            | L          | i          |            |        |          |                                       | ,             |   |
| $ \begin{bmatrix} 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 \\ 1 & 1 &$   | k Males                   |                                       |            |       |              |            |            |            |            |            |        |          |                                       |               |   |
|  | lo W. Wark - Riack's Fork |                                       |            |       |              |            |            |            |            |            |        |          | • .                                   |               |   |
| Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities         Abilities       Abilities       Abilities       Abilities  |                           |                                       | •          | ۰     |              |            |            | I          | 1          | ı          |        |          | 1                                     |               |   |
| Act Han         Act Han <td< td=""><td>n Breed</td><td></td><td></td><td></td><td></td><td>•</td><td>•</td><td>I</td><td>ł</td><td><b>;</b> 1</td><td></td><td></td><td></td><td>,</td><td></td></td<>   | n Breed                   |                                       |            |       |              | •          | •          | I          | ł          | <b>;</b> 1 |        |          |                                       | ,             |   |
| 001          | ng/100 Adult Heas         |                                       |            |       | •            | •          |            | . 1        | 1 1        | I <b>I</b> |        |          |                                       |               |   |
| 1        | e wie Breeds              | ,                                     |            |       |              |            |            | 1          | I          |            | Y      | · .      |                                       |               |   |
|  | lt Mates                  |                                       |            |       |              |            |            |            |            |            |        |          |                                       |               |   |
|  |                           |                                       |            |       |              |            |            |            |            | ÷          |        |          |                                       |               |   |
| Jirk Hend         Jirk Hend         Jirk Hend         Jord   |                           |                                       |            | ı     | 1            |            | 1          | I          | 1          | ı          |        |          |                                       |               |   |
| dng Hatu         dng Hatu         node         no         no  | n Brnod                   |                                       |            | •     | Ţ            | . <        |            | 1          | .          | ţ.         |        |          |                                       |               |   |
| Model       Model <td< td=""><td>up/100 Aduk Hena</td><td></td><td></td><td>1</td><td>1</td><td></td><td>1</td><td><b>I</b>  </td><td>1 1</td><td>. 1</td><td></td><td></td><td></td><td></td><td></td></td<>  | up/100 Aduk Hena          |                                       |            | 1     | 1            |            | 1          | <b>I</b>   | 1 1        | . 1        |        |          |                                       |               |   |
|  | s w/o Broods              | · .                                   |            | I,    | 1            |            | T          | <b>t</b>   | 1          | 1          |        |          |                                       |               |   |
|  | It Males                  |                                       |            | -     |              |            |            |            |            |            | 1      |          |                                       |               |   |
|  | -                         |                                       |            |       |              |            |            |            |            |            |        |          |                                       |               |   |
|  |                           |                                       |            | ı     |              |            | 1          | ł          | 1          | 5          |        |          |                                       |               |   |
| doil Hiau         odd         ddi Hiau         ddi Hiau         ddi Hi         ddi   | e Brned                   |                                       |            | ł     | ı            |            | I          | 1          | ł          | 1 :        | 1      |          |                                       |               |   |
| odds       4       4       1   | ag/100 Adult Hear         |                                       |            | 1     | ;<br>;       |            | i          |            | 11         | I          |        |          |                                       | ,             |   |
| Multi Hense       4.00         Multi Hense       4.00         Multi Hense       4.00         Multi Hense       4.00         Multi Hense       4.00         Multi Hense       4.00         Multi Hense       4.00         Multi Hense       4.00         Multi Hense       4.00         Multi Hense       1   | a w/o Broods              | 1                                     |            |       | <b>1</b> * 1 |            | ,          |            | 1          | 、  <br>    | · ,    |          | •                                     |               |   |
|  | it Males                  |                                       |            | •     | 1            |            |            |            |            | <b>x</b> . |        |          |                                       | -             | • |
|  | nnei'a Etrave             |                                       |            |       |              |            | ,          |            |            | :          |        |          |                                       |               |   |
| 4.106<br>4.106<br>4.106<br>4.106<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4.10<br>4. |                           |                                       |            | 4     | Ì            | t          |            | 1          | i i        | ;<br>F 1   | ·<br>· | •        |                                       |               |   |
| Abili, Hease       400       400         nodis       0       0         nodis       1       1         nodis       1       1         nodis       2.00         statistical       2.00         nodis       2.00         nodis       0         nodis       0         nodis       1         notis       1  | an Brood                  | <u>4</u> .00                          |            | ı     | ı            | 1          | 1          | <b>1</b>   | 1 <b>1</b> | 1 <b>1</b> |        |          |                                       | ;             |   |
| Modia       0       1 <td>ung/100 Adult Hens</td> <td>400</td> <td></td> <td>I</td> <td><b>1</b></td> <td>1</td> <td>1</td> <td></td> <td>1</td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td>  | ung/100 Adult Hens        | 400                                   |            | I     | <b>1</b>     | 1          | 1          |            | 1          | 1          |        |          |                                       |               |   |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | us w/a Braodis            | •                                     |            | ı     | ł            | 1 :        | 1 1        | . 1        |            | . I        | ,      |          | , '                                   |               |   |
| dull Rens<br>dul Rens<br>todo  | ult Males                 | -                                     |            |       | <b>1</b> .   |            |            |            |            |            |        |          |                                       |               |   |
| t<br>dult Hans<br>tode   |                           |                                       |            |       |              |            |            |            |            |            |        |          |                                       |               |   |
| dult Hens<br>dult Hens<br>ods  | ody reak                  |                                       | •          | 2.    |              |            | -          | <b>1</b>   |            | 1          |        |          |                                       |               | ; |
| dull Hens 0  | ean Brood                 |                                       |            |       |              | •••        | 2,00       | 11         |            | 1 1        |        |          |                                       | ,             |   |
|  | Young/100 Adult Rens      | ı                                     |            |       |              |            |            |            |            | 1          |        |          |                                       |               |   |
|  | Hens w/o Broads           |                                       |            |       |              |            | , <b>,</b> |            |            | I          |        |          |                                       |               |   |

Table 2. (continued)

| Area:                       |            |            |            | DATE       |      |      |            |      |      |            |
|-----------------------------|------------|------------|------------|------------|------|------|------------|------|------|------------|
| Statistics                  | 8/17-30/82 | 8/23-30/83 | 8/26-28-84 | 8/14-22/85 | 8/86 | 8/87 | 8/25-31/88 | 6/90 | 0,00 | 0,01       |
|                             |            |            |            |            |      |      |            | 010  | 1610 | 1610       |
| East F. Black's Fork        |            |            |            |            |      |      |            |      |      |            |
| e                           |            |            |            |            |      |      |            | •    |      |            |
| Mean Brood                  |            |            |            |            |      | I    |            | ł    | I    | 1          |
| Young/100 Adult Hens        |            |            |            |            |      | ł    |            | 1    | 1    | I          |
| Hens w/o Broods             |            |            |            |            |      | I    |            | l    | I    | I          |
| Adult Males                 |            |            |            |            |      | I    |            | I    | ł    | I          |
|                             |            |            |            |            |      | 1    |            | 1    | 1    | I          |
| Joulious Creek              |            |            |            |            |      |      |            |      |      |            |
| =                           |            |            |            |            |      |      | <b>(e)</b> |      |      |            |
| Mean Rrand                  |            |            |            |            |      | l    | •          | I    | I    | I          |
| Young/100 Aduly Hans        |            |            |            |            |      | 1.00 | 0.00       | 1    | I    | I          |
| Hene win Brands             |            |            |            |            |      | 300  | •          | I    | I    | I          |
| Adult Malae                 |            |            |            |            |      | •    | 4          | I    | ľ    | I          |
|                             |            |            |            |            |      | 0    | •          | 1    | ł    | 1          |
| TOTALS                      |            |            |            |            |      |      |            |      |      |            |
| I                           | ~          | ,          | ,          |            |      |      | •          |      |      |            |
| Mean Brood                  |            | n ,        | M          | 5          | N)   | Ŷ    | •          | 4    | -    | 1          |
| Voume/100 Adult Une         | 4.20       | 4.00       | 6.00       | 3.50       | 3.75 | 3.86 | 3.33       | 4.00 | 4.00 | 2.0N       |
| tour w/o Barada             |            | 400        | 300        | 350        | 375  | 236  | 505        | 366  | 400  | 200        |
| A 2.14 PK-1-1               |            | •          | ч          | 0          | 0    | 7    | 19         | 4    |      |            |
|                             |            | ¢          | •          | ¢          | •    | 0    | -          |      | •    | •          |
| <b>Total Birds Observed</b> |            | 20         | ł          | 18         | 10   | Ę    |            | ę    | •    | •          |
| h After 4 dave of searching |            |            |            | 0.4        |      | Ì    | 4          | 22   |      | <b>e</b> 7 |

c Only 3 days of searching, suspect a minimum of 5 broods present on Trail Rider Pass this year.

d Flat Top Mountain between Henry's Fork and Smith's Fork

e Mixed Adults

n Number of Broods

Table 3. Summary of white-tailed ptarmigan harvest statistics, 1982-91. Estimates are calculated hased upon 100 percent samples or projection factors.

| Year Sold Afield Afield Bagged<br>1982 48 21 33 0  | Ŧ    |                     |          |               |               |          |
|--|------|---------------------|----------|---------------|---------------|----------|
| 8 <b>9</b>   |      |                     | TUN LUNG |               |               |          |
|  | 0.00 | 0.00                | Ð        | ₽`            | 1             | •        |
|  | 1.06 | 0.67                | •        | 52            | ₹             | 1        |
|  | 1.80 | 1.44                | 0        | 1             | 1             | t        |
| -  | 0.20 | 0.54                | 14       | ;<br><b>6</b> | 14            | 1        |
| 1985 55 10 II 197  |      |                     | C        | /<br>05       | 77            | <b>1</b> |
| <b>186 49 14 21 8</b>  | 9.57 | <b>0</b> , <b>1</b> | Ð        | •             | 1             | 1        |
| 1987 45 9 9 8  | 0.89 | 68.0                | 1        | : 1           | ,<br> '<br>*, | A SOCIAL |
| 1088** 28 15 15 22   | 1.47 | 1.47                | •        | ñ :           | 1             | (TT)AC*A |
| 1000 10 3 18 13  | 4.33 | 0.72                | 1        | 35            |               | 1        |
| $\frac{1}{100} \frac{1}{11} $ | 1.55 | 0.63                | •        | 81            | 32            | ł        |
| ;  | 2.00 | 1.63                | •<br>•   | 95            | <b>2</b> 0    |          |

# **RABBITS AND HARES**

### SUMMARY

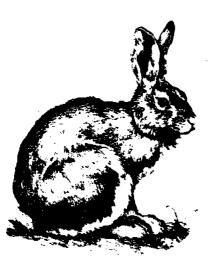
Cottontail populations decreased from a short term high in 1988 and are below the 10 year average.

Summer roadside counts indicated a decreased population density statewide. Harvest statistics indicated decreased hunter success, as in the previous year, and, is still 11 percent below average. Field bag checks on opening weekend indicated below average hunter success.

## **Cottontail Rabbits**



### **Snowshoe Hares**



The 1991 snowshoe hare hunting season indicated a slight decrease in populations.

Hunter pressure decreased 16 percent from the previous year and remained below average. Although efforts have been made to educate hunters in the identification of the snowshoe hare and the white-tailed jackrabbit, it is still a potential problem which could bias the snowshoe data.

R

 $\mathbf{A}$ 

B B I T S

&

H A R E S

### COTTONTAIL RABBIT

#### Roadside Counts

Results of the annual roadside counts for 1991 are shown in Table 1 and Figure 1. The long-term trend of cottontails observed per mile and young per 100 adults is shown in Figure 4 and Tables 2 and 3. Indices for 1991 compared to 1990 and the previous 10-year (1981-90) average follow:

|                               |             | Percent | <u>change from</u> |
|-------------------------------|-------------|---------|--------------------|
|                               | <u>1991</u> | 1990    | Average            |
| Total miles driven            | 558         | -37     | -64                |
| Total cottontails counted     | 94          | -73     | -84                |
| Cottontails observed per mile | 0.17        | -56     | -54                |
| Young observed per 100 adults | 64          | -12     | -21                |

Reverse - being fur

A increased breeding population for 1991 was again indicated by 1990 harvest statistics. Production data from roadside counts indicated a decline in the population. The cottontail per mile index decreased 56 percent and was 54 percent below average.

### Harvest

#### Hunter Questionnaire

Results of the 1991 hunter questionnaire are found in Table 4. Trends of cottontails bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 5-7. Trends of statewide harvest statistics are found in Table 8 and Figures 2 and 3. Results of the 1991 season compared to 1990 and the 24-year average follow:

|                            |             | Percent | <u>change from</u> |
|----------------------------|-------------|---------|--------------------|
|                            | <u>1991</u> | 1990    | <u>Average</u>     |
| Cottontail hunters         | 21,137      | -8      | -15                |
| Cottontail harvest         | 111,407     | -13     | -31                |
| Hunter-days afield         | 82,772      | -11     | -19                |
| Cottontails per hunter-day | 1.35        | -1      | -11                |
| Cottontails per hunter     | 5.27        | -5      | -15                |

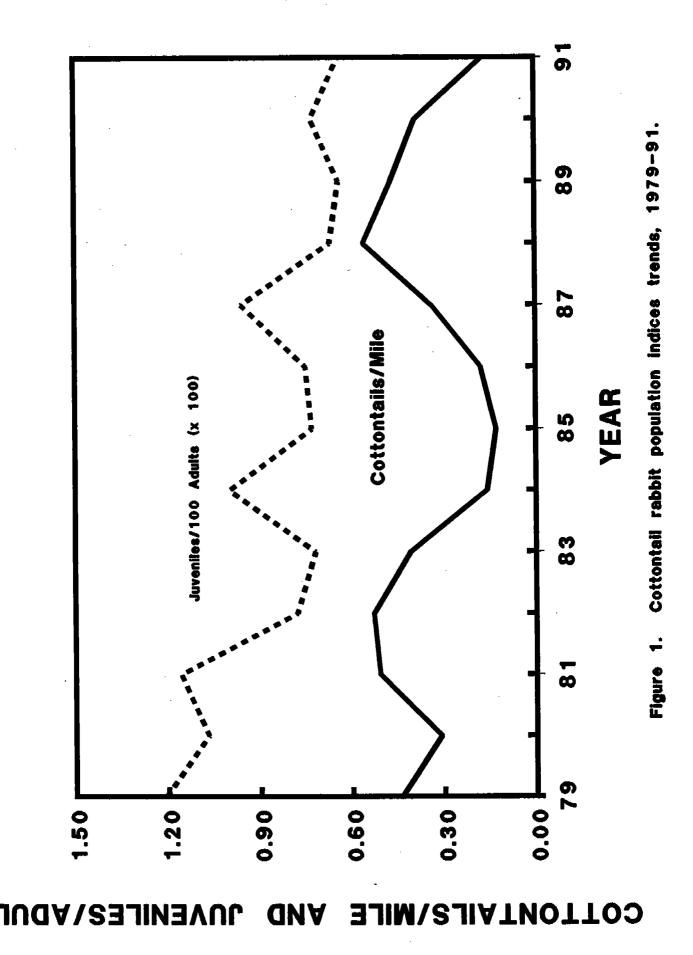
Total hunters and effort decreased from 1990. Total harvest decreased 15 percent. Total harvest was 31 percent below average. Hunter success was 11 percent below average. Harvest data indicate a year of below average populations of cottontails. The drought may be negatively affecting rabbit populations statewide. A population crash was apparent in the spring of 1984, and has been confirmed by the 1984 and 1985 harvest data. Populations recovered rapidly in 1986, 1987, and 1988. Populations may be headed downward again. The last six winters have not been harsh.

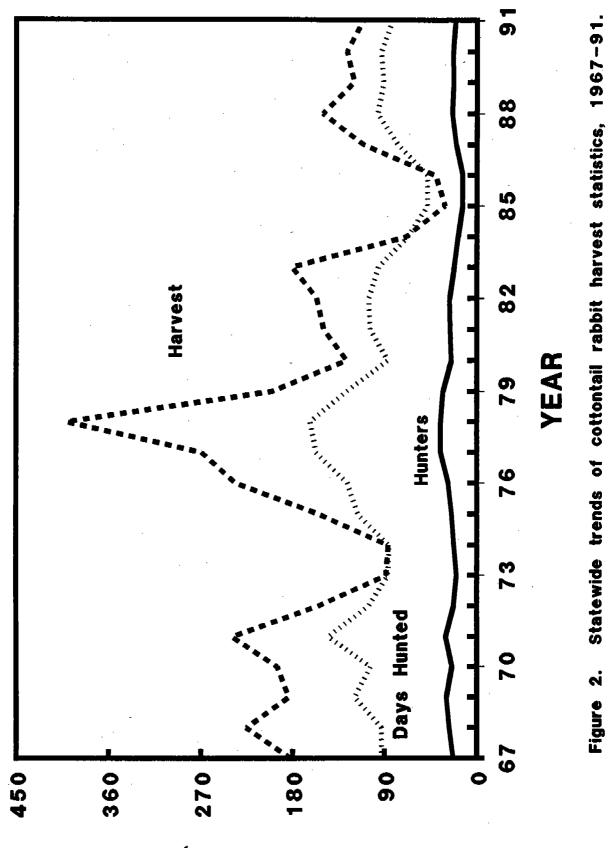
### Field Bag Checks

Results of field bag checks for 1991 are shown in Table 9. Trends of hunter success as determined by bag checks are shown in Table 10. Following is a comparison of the 1991 field bag check data to 1990 and the previous 10-year (1981-90) average.

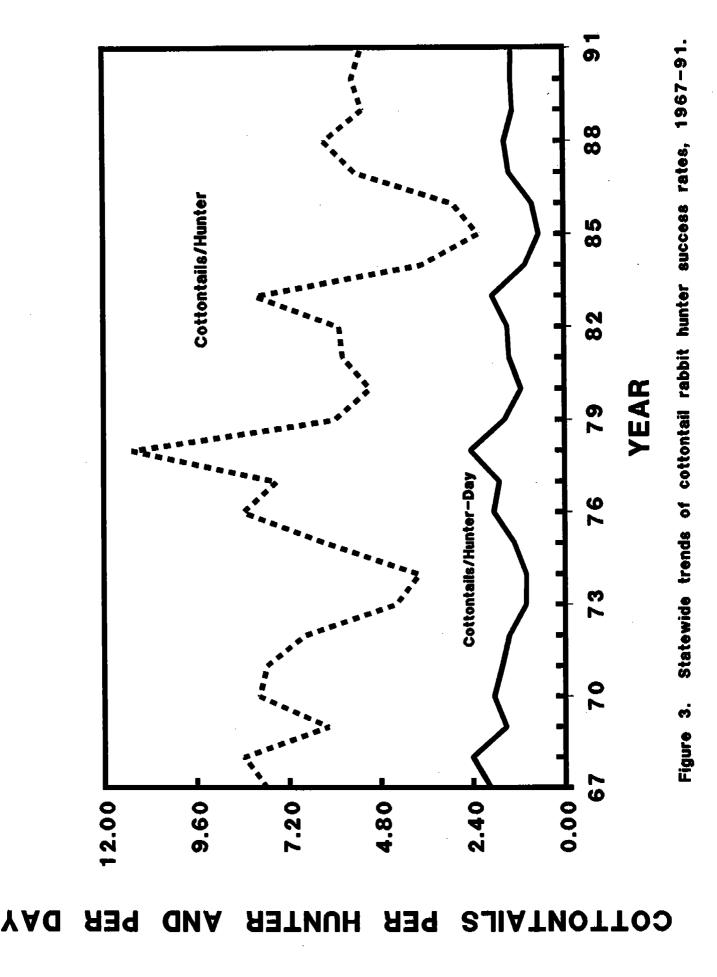
|   |             | Percent     | <u>change from</u> |
|---|-------------|-------------|--------------------|
|   | <u>1991</u> | <u>1990</u> | Average            |
| Total hunters checked                           | 171         | +122        | +51                |
| Total hours hunted                              | 734         | +251        | +162               |
| Cottontails per hunter                          |             |             |                    |
| (complete hunts)                                | 1.26        | -73         | -42                |
| Cottontails bagged per 100 hours                | 29          | -80         | -61                |
| Hours per hunter-day                            |             |             |                    |
| (complete hunts)                                | 4.29        | +33         | +40                |
| Hours per cottontail bagged<br>(complete hunts) | 3.41        | +139        | +75                |

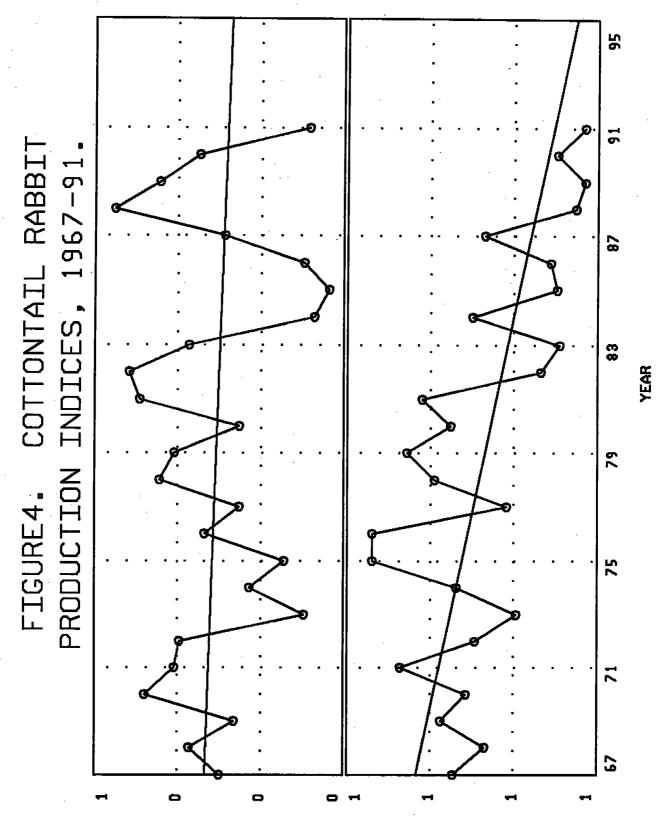
Hunter success (cottontails per hunter) decreased and was well below average. Only 171 hunters were checked. Sample sizes were small which may account for the inconsistency with mail questionnaire results.





(000, r X) JATOT





RAB/WILE

JUGA ADUL.

| Table 1. | Cottontail rabbit summer | inventory summary, 1991. |
|----------|--------------------------|--------------------------|
|          |                          |                          |

| Region and          | Miles     |        | Rabbits Ol | oserved      |       | Young/     | Rabbits |
|---------------------|-----------|--------|------------|--------------|-------|------------|---------|
| County              | Driven    | Adults | Young      | Unclassified | Total | 100 Adults | Mile    |
| Northern Region     |           |        |            |              |       |            |         |
| Box Elder           | 90        | 8      | 1          |              | 9     | 13         | 0.10    |
| Cache               |           |        | -          |              |       |            |         |
| Davis               |           |        |            |              |       |            | -       |
| Morgan              |           |        |            |              |       | -          | -       |
| Rich                |           |        | ·          |              |       |            |         |
| Summit              |           |        |            |              |       |            |         |
| Weber               |           |        | -          |              |       |            |         |
| REGIONAL TOTALS     | 90        | 8      | 1          | **           | 9     | 13         | 0.10    |
| Central Region      |           |        |            |              |       |            |         |
| Juab                |           | ••     | -          | ••           |       |            | -       |
| Salt Lake           |           | _      |            | -            |       | -          |         |
| Sanpete             | 33        | 2      | 1          |              | 3     | 50         | 0.09    |
| Tooele              |           |        | ••         |              |       |            | -       |
| Utah                |           |        |            | ••           |       |            | -       |
| Wasatch             |           |        |            |              |       |            |         |
| REGIONAL TOTALS     | 33        | 2      | 1          | ••           | 3     | 50         | 0.09    |
| Southern Region     | · ··· -   |        |            |              |       |            |         |
| Beaver              |           |        |            |              |       |            |         |
| Garfield            |           |        |            |              | ••    | · <b></b>  |         |
| Iron                |           |        |            |              |       |            |         |
| Kane                |           |        |            |              |       |            | ••      |
| Millard             | . <b></b> |        |            |              |       |            | -       |
| Piute               |           |        |            |              |       |            | -       |
| Sevier              |           | ••     |            |              |       |            |         |
| Washington          |           |        |            |              |       |            |         |
| Wayne               |           |        |            |              |       | 369        | 0.83    |
| REGIONAL TOTALS     |           |        | -          |              |       | 369        | 0.83    |
| Northeastern Region |           |        |            |              |       |            |         |
| Daggett             |           | **     |            |              |       |            |         |
| Duchesne            | 105       | 2      | 1          |              | 3     | 50         | 0.03    |
| Uintah              |           |        |            |              |       |            |         |
| REGIONAL TOTALS     | 105       | 2      | 1          |              | 3     | 50         | 0.03    |
| Southeastern Region |           |        |            |              |       |            |         |
| Carbon              | 90        | ••     | 6          | 12           | 18    |            | 0.20    |
| Emery               | 90        |        | -          | 33           | 33    |            | 0.37    |
| Grand               | 60        |        | -          | 3            | 3     |            | 0.05    |
| San Juan            | 90        | 13     | 7          | 5            | 25    | 54         | 0.28    |
| REGIONAL TOTALS     | 330       | 13     | 13         | 53           | 79    | 100        | 0.24    |
| STATE TOTALS        | 558       | 25     | 16         | 53           | 94    | 64         | 0.17    |

| Region and             |      | tauous ousetrea per mue un me summer mrenory, 1501-91 |      | the smirn a |      | Wry, 1901-<br>Year | 71.  |      |      |      |        | Avenue  |
|------------------------|------|---|------|-------------|------|--------------------|------|------|------|------|--------|---------|
| County                 | 1981 | 1982  | 1983 | 1984        | 1985 | 1986               | 1987 | 1988 | 1989 | 1990 | 1001   | 1081-00 |
| Northern Region        |      |   |      |             |      |                    |      |      |      |      |        | AC-10/T |
| Box Elder              | 0.37 | 0.01  | ;    | 1           | 1    | 0.02               | 0.03 | ł    | 0.03 | 0.39 | 0.10   |         |
| Cache                  | 1    | ł   | ł    | ł           | 1    | I                  | ;    | 1    | :    | ł    | 1      |         |
| Davis                  | I    | ł   | ł    | 1           | I    | I                  | 1    | :    | ı    | ł    | ł      |         |
| Morgan                 | ı    | 1   | 1    | 1           | 1    | 1                  | 1    | 1    | 1    | I    | I      |         |
| Rich                   | 0.13 | 0.16  | 1    | 1           | I    | 0.02               | 1    | 1    | ı    | ı    | ł      |         |
| Summit                 | 1    | 1   | 0.18 | ł           | - 1  | I                  | 1    | 1    | I    | ł    | ı      |         |
| Weber                  | I    | I   | ł    | 1           | ŀ    | ł                  | 1    | 1    | 1    | I    | 1      |         |
| <b>REGIONAL TOTALS</b> | 0.26 | 0.06  | 0.18 | 1           | 1    | 0.02               | 0.03 | 1    | 0.03 | 0.39 | 0.10   | 0.14    |
| Central Region         |      |   |      |             |      |                    |      |      |      |      |        |         |
| Juab                   | 1.12 | 0.38  | 1    | 0.00        | 0.00 | 0.02               | 0.0  | 0.54 | 0.30 | 0.23 | ł      |         |
| Salt Lake              | 1    | 1   | I    | ł           | ł    | ł                  | ł    | ł    | 1    | ł    | ł      |         |
| Sanpete                | 1.29 | 0.78  | 0.57 | ł           | 1    | l                  | 1    | 0.47 | 0.22 | 0.65 | 0.09   |         |
| Tooele                 | 0.13 | 0.10  | I    | 0.02        | 0.00 | 0.01               | 0.02 | 0.18 | ı    | 1    | 1      |         |
| Utah                   | I    | I   | I    | ı           | ł    | I<br>,             | ł    | 1    | ł    | I    | 1      |         |
| Wasatch                | ı    | 1   | I    | 1           | :    | ı                  | ł    | 1    | ı    | I    | 1      |         |
| REGIONAL TOTALS        | 0.85 | 0.43  | 0.57 | 0.0         | 0.0  | 0.01               | 0.02 | 0.36 | 0.26 | 0.45 | 0.09   | 0.30    |
| Southern Region        |      |   |      |             |      |                    |      |      |      |      |        |         |
| Beaver                 | 0.19 | 0.12  | 0.04 | 0.01        | 0.03 | 0.10               | 0.04 | 0.06 | ı    | I    | I      |         |
| Garfield               | ;    | 0.27  | 0.25 | :           | 0.06 | 0.13               | ı    | 1    | 1    | ı    | 1      |         |
| Iroa                   | 1    | 0.18  | 0.38 | 0.27        | 0.33 | 0.53               | 0.26 | I,   | 1    | 1    | ı      |         |
| Kane                   | 0.69 | I   | 1    | ı           | 0.52 | 0.47               | 0.97 | 1.09 | ł    | 1    | t      |         |
| Millard .              | 0.56 | 0.28  | 0.16 | 0.04        | 0.02 | 0.08               | 0.0  | 0.0  | 1    | 0.08 | ł      |         |
| Piute                  | 0.10 | 0.13  | 0.03 | ;           | :    | 0.06               | 0.05 | 1    | ł    | 1    | I      | -       |
| Sevier                 | 0.83 | 0.27  | 0.23 | I           | ı    | 1                  | 1    | 1    | 1    | ł    | I      |         |
| Washington             | 0.24 | 0.32  | 0.38 | ;           | 0.23 | 0.12               | 0.12 | 0.36 | 0.33 | 1    | 1      |         |
| Wayne                  | 0.49 | 0.69  | ı    | 0.80        | •    | 0.20               | 0.24 | 0.34 | t    | 1    | 0.83   |         |
| <b>REGIONAL TOTALS</b> | 0.45 | 0.29  | 0.19 | 0.18        | 0.19 | 0.24               | 0.27 | 0.33 | 0.33 | 0.08 | 0.83   | 0.26    |
| Northeastern Region    |      |   |      |             |      |                    |      |      |      |      |        |         |
| Daggett                | 0.32 | 0.45  | 0.58 | 0.22        | 0.12 | 0.22               | 0.66 | 0.85 | 0.50 | 0.55 | ı      |         |
| Duchesne               | 1.78 | 2.28  | 0.58 | 0.28        | 0.13 | 0.44               | 0.86 | 1.49 | 1.04 | 0.23 | - 0,03 |         |
| Vintah .               | 0.48 | 1.97  | 2.97 | 0.11        | 0.00 | 0.02               | 0.36 | 1.26 | 1.40 | 1.00 | ı      |         |
| REGIONAL TOTALS        | 0.81 | 1.46  | 1.21 | 0.21        | 0.09 | 0.25               | 0.65 | 1.18 | 16.0 | 0.57 | 0.03   | 0.73    |
| Southeastern Region    |      |   |      |             |      |                    |      |      |      |      |        |         |
| Carbon                 | 0.12 | 0.10  | 0.11 | 1           | 0.05 | 0.08               | 0.33 | 0.41 | 0.34 | 0.02 | 0.20   |         |
| Emery                  | 0.41 | 0.18  | 0.23 | 0.18        | 0.20 | ł                  | 0.40 | 0.34 | 0.33 | 0.40 | 0.37   |         |
| Grand                  | 0.32 | 0.67  | 0.15 | 0.13        | 0.67 | 0.80               | I    | 0.10 | 0.06 | 0.01 | 0.05   |         |
| San Juan               | 0.42 | 1.26  | 0.40 | 1           | 0.14 | 0.37               | 0.29 | 0.59 | 0.55 | 0.80 | 0.28   |         |
| <b>REGIONAL TOTALS</b> | 0.36 | 0.58  | 0.25 | 0.17        | 0.13 | 0.17               | 0.38 | 0.36 | 0.32 | 0.36 | 0.24   | 0.31    |
| STATE TOTALS           | 0.51 | 0.53  | 0.41 | 0.16        | 0.13 | 0.18               | 0.34 | 0.56 | 0.47 | 0.39 | 0.17   | 0.37    |
|                        |      |   |      |             |      |                    |      |      |      |      |        |         |

Table 2. Summary of cottontail rabbits observed per uile during summer inventory, 1981-91.

| ,                   |      |            |          | Region and |      | Year       |          |            |            |                      |           | Average |
|---------------------|------|------------|----------|------------|------|------------|----------|------------|------------|----------------------|-----------|---------|
| County              | 1981 | 1982       | 1983     | 1984       | 1985 | 1986       | 1987     | 1988       | 1989       | 1990                 | 1661      | 1981-90 |
| Northern Region     |      |            |          |            |      |            |          |            |            |                      |           |         |
| Box Elder           | 11   | 1          | 1        | 1          | ı    | 0          | 22       | 1          | 200        | 200                  | 13        |         |
| Cache               | ł    | I          | :        | ı          | 1    | t          | ı        | ł          | 1          | ;                    | ı         |         |
| Davis               | ı    | 1          | :        | I          | 1    | 1          | ı        | I          | 1          | 1                    | 1         |         |
| Morgan              | 1    | :          | ł        | <b>1</b>   | 1    | ı          | 1        | 1          | I          | I                    | ı         |         |
| Rich                | 43   | 8          | 67       | :          | ı    | <b>1</b> 5 | ı        | ı          | 1          | 1                    | ı         |         |
| Summit              | ı    | :          | ı        | ł          | ı    | I          | I        | 1          | 1          | I                    | 1         |         |
| Weber               | ı    | ł          | 1        | 1          | I    | 1          | ı        | 1          | I          | 1                    | I         |         |
| REGIONAL TOTALS     | 11   | 8          | 69       | :          | ,    | 8          | 25       |            | 200        | 200                  | 13        | 8       |
| Central Region      |      |            |          |            |      |            |          |            |            |                      |           |         |
| Juab                | 102  | 53         | ł        | ¢          | 0    | •          | •        | 20         | 13         | 1                    | I         |         |
| Salt Lake           | 1    | 1          |          | ł          | ;    | ļ          | 1        | I          | 1          | :                    | ł         |         |
| Sannete             | 197  | 209        | 125      | ł          | 1    | ł          | 1        | 8          | 4          | 4                    | 50        |         |
| Tooele              | 200  | 8          | I        | I          | 1    | ł          | 100      | 120        | 1          | :                    | ı         |         |
| Utah                | 1    | 1          | I        | 1          | 1    | ı          | <b>1</b> | ł          | I          | ł                    | ı         |         |
| Wasatch             | ł    | :          | ł        | ł          | 1    | 1          | 1        | 1          | ł          | ł                    | 1         |         |
| REGIONAL TOTALS     | 147  | 140        | 225      | •          | 0    | •          | 100      | 57         | 23         | 27                   | 50        | 72      |
| Southern Region     |      |            |          |            |      |            |          |            |            | 3                    |           |         |
| Beaver              | 55   | 83         | 33       | 1          | 1    | 22         | :        | ;          | 1          | :                    | 1         |         |
| Garfield            | ł    | 38         | 120      | :          | 33   | 38         | :        | :          | I          | 1                    | 1         |         |
| Iron                | ł    | 51         | 35       | 4          | 82   | 75         | :        | 1          | 1          | 1                    | 1         |         |
| Kane                | 106  | :          | I        | 1          | 100  | 11         | 111      | 149        | 1          | ı                    | :         |         |
| Millard             | 170  | <u>9</u> 6 | 125      | 75         | 200  | 170        | 114      | 110        | I          | 100                  | I         |         |
| Piute               | ł    | ł          | 200      | :          | ł    | I          | :        | ı          | 1          | 1                    | 1         | -       |
| Sevier              | :    | 33         | 61       | ł          | :    | ı          | :        | ı          | ı          | I                    | 1         |         |
| Washington          | 123  | 150        | 81       | ł          | 73   | 133        | 175      | 100        | 131        | 1                    | 1         |         |
| Wayne               | 287  | 343        | F        | 380        |      | 360        | 2100     | - 244      | 1          | I                    | 369       |         |
| REGIONAL TOTALS     | 184  | 145        | 82       | 215        | 85   | 100        | 137      | 136        | 131        | 9                    | 369       | 132     |
| Northeastern Region |      |            |          |            |      |            |          |            |            |                      |           |         |
| Daggelt             | 104  | 140        | 8        | 33         | 46   | 136        | 116      | 30         | <b>6</b> 5 | S                    | ı         |         |
| Duchesne            | 4    | 37         | 16       | 77         | 15   | 26         | 24       | <b>6</b> £ | 50         | 1                    | 5         |         |
| Uintah              | 176  | 44         | 76       | 233        | 0    | 100        | 264      | 170        | 239        | <u>95</u>            | ;         |         |
| REGIONAL TOTALS     | 67   | <b>8</b>   | 63       | 42         | 31   | 58         | 74       | 46         | 82         | 58                   | 50        | 51      |
| Southeastern Region |      |            |          |            |      |            |          |            |            |                      |           |         |
| Carbon              | 8    | 38         | \$       | 1          | I    | 150        | 567      | 200        | \$         | <b>4</b><br><b>6</b> | I         |         |
| Emery               | 5    | 43         | 75       | 217        | 216  | I          | 54       | 50         | I          | 1                    | 1         |         |
| Grand               | 137  | 148        | 150      | 33         | 300  | 300        | ł        | 1          | ł          | I                    | 1         |         |
| San Juan            | 105  | 11         | <b>6</b> | ۱          | 4    | 61         | 47       | 49         | 80         | 69                   | <b>S4</b> |         |
| REGIONAL TOTALS     | 103  | 82         | 54       | 156        | 88   | 99         | 100      | 64         | 110        | 67                   | 100       | 89      |
|                     |      |            |          |            | 3    | \$         |          | \$         | , .        | ;                    |           |         |

| REGION AND<br>COUNTY | SAMPLE<br>SIZE*    | HUNTER-DAYS<br>AFIELD | COTTONTAILS<br>BAGGED | COTTONTAILS<br>PER HUNTER-DAY | % OF<br>PRESSURE |              |
|----------------------|--------------------|-----------------------|-----------------------|-------------------------------|------------------|--------------|
| NORTHERN REGION      |                    |                       |                       |                               |                  |              |
| BOX ELDER            | 157                | 7,724                 | 10,089                | 1.31                          | 9.33             | 9.06         |
| CACHE                | 33                 | 1,269                 | 1,791                 | 1.41                          | 1.53             | 1.61         |
| DAVIS                | 4                  | 104                   | 156                   | 1.50                          | 0.13             | 0.14         |
| MORGAN               | 9                  | 295                   | 452                   | 1.53                          |                  | 0.41         |
| RICH                 | 53                 | 1,757                 | 4,610                 | 2.62                          | 2.12             | 4.14         |
| SUMMIT               | 19                 | 1,791                 | 2,226                 | 1.24                          |                  |              |
| WEBER                | - 8                | 574                   | 504                   | 0.88                          | 2.16<br>0.69     | 2.00<br>0.45 |
| REGIONAL TOTALS      | 283                | 13,517                | 19,831                | 1.47                          | 16.33            | <br>17.80    |
| ENTRAL REGION        |                    |                       |                       |                               |                  |              |
| JUAB                 | 110                | 5,097                 | 8,559                 | 1.68                          | 6.16             | 7.68         |
| SALT LAKE            | 7                  | 556                   | 400                   |                               | 0.67             | 0.36         |
| SANPETE              | 46                 | 2,470                 | 3,113                 | 1.26                          | 2 98             | 2.80         |
| TOOELE               | 257                |                       | 18,666                | 1.23                          | 18.35            | 16.76        |
| UTAH                 | 134                | 6,975                 | 6,906                 | 0.99                          | 10.33            |              |
| WASATCH              |                    | 1,148                 |                       | 1.06                          | 8.43             |              |
|                      |                    |                       |                       |                               | 1.39             |              |
| EGIONAL TOTALS       | 573<br><b>5</b> 73 | 31,435                | 38,863                | 1.24<br>                      | 37.98            | 34.88        |
| OUTHERN REGION       |                    |                       |                       |                               |                  |              |
| BEAVER               | 12                 | 1,478                 | 1,026                 | 0.69                          | 1.79             | 0.92         |
| GARFIELD             | 6                  | 226                   | 104                   | 0.46                          | 0.27             | 0.09         |
| IRON                 | 13                 | 1,078                 | 1,148                 | 1.06                          | 1.30             | 1.03         |
| KANE                 | 9                  | 1,583                 | 1,478                 | 0.93                          | 1.91             | 1.33         |
| MILLARD              | 55                 | 4,070                 | 4,662                 | 1.15                          | 4.92             | 4.18         |
| PIUTE                | 4                  | 121                   | 69                    | 0.57                          | 0.15             | 0.06         |
| SEVIER               | 42                 | 2,992                 | 1,948                 | 0.65                          | 3.61             | 1.75         |
| WASHINGTON           | 25                 | 2,209                 | 1,496                 | 0.68                          | 2.67             | 1.34         |
| WAYNE                | 18                 | 1,043                 | 1,252                 | 1.20                          | 1.26             | 1.12         |
| EGIONAL TOTALS       | 184                | 14,804                | 13,186                | 0.89                          | 17.89            | 11.84        |
| ORTHEASTERN REG      | ION                |                       |                       |                               |                  |              |
| DAGGETT              | 33                 | 2,000                 | 3,653                 | 1.83                          | 2.42             | 3.28         |
| DUCHESNE             | 91                 | 5,688                 | 12,229                | 2.15                          | 6.87             | 10.98        |
| UINTAH               | 111                | 6,297                 | 10,142                | 1.61                          | 7.61             | 9.10         |
| EGIONAL TOTALS       | 235                | 13,986                | 26,025                | 1.86                          | 16.90            | 23.36        |
| OUTHEASTERN REG      |                    |                       |                       |                               |                  |              |
| CARBON               | 56                 | 3,218                 | 5,619                 | 1.75                          | 3.89             | 5.04         |
| EMERY                | 39                 | 3,514                 | 3,635                 | 1.03                          | 4.25             | 3.26         |
| GRAND                | 7                  | 417                   | 730                   | 1.75                          | 0.50             | 0.66         |
| SAN JUAN             | 20                 | 1,878                 | 3,514                 | 1.87                          | 2.27             | 3.15         |
| EGIONAL TOTALS       | 122                | 9,028                 | 13,499                | 1.50                          | 10.91            | 12.12        |
| UNKNOWN              | <br>0              | <br>0                 | 0                     | 0.00                          | 0.00             | 0.00         |
| TATE TOTALS          | 1,397              | 82,772                | 111,407               | <br>1.35                      | 100.00           | 100.00       |

Table 4. Summary of cottontail rabbit hunter success and distribution of harvest and hunting pressure by region and county, 1991.

----

\*Total hunter trips from questionnaire returns.

| Region and        |      |      |      |      | Year |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|
| County            | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
| Northern Region   | 1704 | 1705 |      |      |      |      |      |      |
| Box Elder         | 0.72 | 0.46 | 0.73 | 2.25 | 1.78 | 1.29 | 1.49 | 1.31 |
| Cache             | 0.71 | 0.93 | 0.18 | 1.78 | 0.37 | 0.66 | 0.87 | 1.41 |
| Davis             | 0.57 | 0.00 | 4.00 | 0.67 | 0.50 | 1.00 | 0.25 | 1.50 |
| Morgan            | 1.19 | 0.55 | 0.05 | 1.17 | 1.50 | 0.17 | 0.43 | 1.53 |
| Rich              | 1.61 | 0.52 | 0.74 | 1.33 | 1.86 | 1.37 | 2.52 | 2.62 |
| Summit            | 0.17 | 0.35 | 0.29 | 1.44 | 0.92 | 0.58 | 0.72 | 1.24 |
| Weber             | 0.68 | 0.13 | 0.69 | 2.83 | 0.61 | 0.27 | 1.06 | 0.88 |
| REGIONAL TOTALS   | 1.76 | 0.40 | 0.57 | 2.14 | 1.49 | 1.09 | 1.55 | 1.47 |
| Central Region    |      |      |      |      |      |      |      |      |
| Juab              | 1.41 | 0.56 | 0.78 | 1.74 | 1.52 | 1.52 | 1.55 | 1.68 |
| Salt Lake         | 0.88 | 0.21 | 1.06 | 1.26 | 0.53 | 1.35 | 0.79 | 0.72 |
| Sanpete           | 0.48 | 0.35 | 0.60 | 1.25 | 1.62 | 1.10 | 0.85 | 1.26 |
| Tooele            | 0.82 | 0.53 | 0.71 | 1.32 | 1.37 | 1.20 | 1.08 | 1.23 |
| Utah              | 0.82 | 0.65 | 0.94 | 1.21 | 1.04 | 0.90 | 0.84 | 0.99 |
| Wasatch           | 0.69 | 0.48 | 0.84 | 1.28 | 0.99 | 1.50 | 0.69 | 1.06 |
| REGIONAL TOTALS   | 0.88 | 0.53 | 0.78 | 1.32 | 1.27 | 1.18 | 1.03 | 1.24 |
| Southern Region   |      |      |      |      |      |      |      |      |
| Beaver            | 0.28 | 0.50 | 0.61 | 1.00 | 1.44 | 0.41 | 1.17 | 0.69 |
| Garfield          | 0.84 | 1.00 | 1.25 | 0.71 | 1.41 | 1.97 | 1.03 | 0.46 |
| Iron              | 1.48 | 0.60 | 0.87 | 0.44 | 1.58 | 0.85 | 1.21 | 1.06 |
| Kane              | 2.19 | 2.07 | 1.12 | 0.58 | 1.41 | 1.00 | 0.90 | 0.93 |
| Millard           | 0.89 | 0.86 | 0.70 | 0.82 | 1.09 | 1.27 | 1.84 | 1.15 |
| Piute             | 0.67 | 1.00 | 1.00 | 1.00 | 1.25 | 0.28 | 1.36 | 0.57 |
| Sevier            | 0.79 | 0.56 | 0.56 | 1.04 | 1.45 | 0.97 | 1.45 | 0.65 |
| Washington        | 0.93 | 1.08 | 0.94 | 0.95 | 2.10 | 0.91 | 0.89 | 0.68 |
| Wayne             | 1.93 | 1.45 | 1.53 | 1.22 | 1.49 | 1.05 | 1.34 | 1.20 |
| REGIONAL TOTALS   | 1.06 | 0.94 | 0.89 | 0.85 | 1.41 | 1.05 | 1.30 | 0.89 |
| Northeastern Regi | on   |      |      |      |      |      |      |      |
| Daggett           | 1.19 | 1.00 | 1.96 | 3.16 | 3.02 | 1.65 | 1.79 | 1.83 |
| Duchesne          | 1.62 | 0.63 | 1.01 | 1.63 | 2.38 | 1.49 | 1.83 | 2.15 |
| Uintah            | 1.47 | 0.49 | 0.49 | 1.89 | 2.32 | 3.16 | 2.41 | 1.61 |
| REGIONAL TOTALS   | 1.51 | 0.59 | 0.96 | 1.95 | 2.40 | 2.13 | 2.10 | 1.86 |
| Southeastern Regi | on   |      |      |      |      |      |      |      |
| Carbon            | 0.52 | 0.69 | 0.49 | 1.34 | 1.29 | 0.97 | 1.43 | 1.75 |
| Emery             | 0.78 | 0.64 | 1.05 | 1.00 | 1.78 | 0.80 | 1.06 | 1.03 |
| Grand             | 1.53 | 1.74 | 1.28 | 2.00 | 2.03 | 1.00 | 1.58 | 1.75 |
| San Juan 🔄        | 1.51 | 0.89 | 1.27 | 2.57 | 1.67 | 1.28 | 1.37 | 1.87 |
| REGIONAL TOTALS   | 0.90 | 0.77 | 0.93 | 1.37 | 1.55 | 0.93 | 1.28 | 1.50 |
| Unknown counties  | 0.00 | 1.11 | 2.50 | 1.04 | 1.49 | 2.00 | 0.00 | 0.00 |
| STATE TOTALS      | 1.02 | 0.65 | 0.83 | 1.43 | 1.55 | 1.32 | 1.36 | 1.35 |

-

Table 5. Summary of cottontail rabbits bagged per hunter-day by region and county, 1984-91.

| Region and        |        |        |        |        | ·V                  | · · · · · · · · · · · · · · · · · · · | · ·          |              |
|-------------------|--------|--------|--------|--------|---------------------|---------------------------------------|--------------|--------------|
| County            | 1984   | 1985   | 1986   | 1987   | <u>Year</u><br>1988 | 1000                                  | 1000         |              |
| Northern Region   | 1204   | +905   | 1960   | 190/   | 1900                | <u>1989</u>                           | <u> 1990</u> | 1991         |
| Box Elder         | 5.49   | 3.82   | 5.68   | 12.83  | 12.11               | 7.20                                  | 0.04         | 0.00         |
| Cache             | 0.50   | 0.96   | 0.25   | 0.91   | 0.27                | 0.47                                  | 9.84<br>1.07 |              |
| Davis             | 0.12   | 0.00   |        | 0.04   | 0.12                | 0.47                                  | 0.02         | 1.61         |
| Morgan            | 0.73   | 1.16   | 0.10   | 0.15   | 0.12                | 0.07                                  | 0.02         | 0.14<br>0.41 |
| Rich              | 2.08   | 0.89   | 1.98   | 0.53   | 1.05                | 1.92                                  | 6.05         | 4.14         |
| Summit            | 0.29   | 1.16   | 0.56   | 0.57   | 0.77                | 0.73                                  | 0.63         | 2.00         |
| Weber             | 0.56   | 0.27   | 0.56   | 1.44   | 0.42                | 0.14                                  | 0.83         | 0.45         |
| REGIONAL TOTALS   | 9.77   | 8.26   | 9.53   | 16.49  | 14.96               | 10.55                                 | 17.95        | 17.80        |
| Central Region    |        |        |        |        | 14.20               | 10.33                                 | <u>17.95</u> | 17.00        |
| Juab              | 5.28   | 2.04   | 2.84   | 5.17   | 6.05                | 6.32                                  | 5.86         | 7.68         |
| Salt Lake         | 2.29   | 0.48   |        | 1.19   | 0.49                | 0.40                                  | 0.68         | 0.36         |
| Sanpete           | 0.82   | 1.23   | 2.38   | 5.61   | 3.74                | 3.70                                  | 3.34         | 2.80         |
| Tooele            | 9.18   | 10.51  | 9.99   | 11.67  | 13.72               | 14.73                                 | 11.60        | 16.76        |
| Utah              | 5.43   | 8.26   | 7.66   | 11.07  | 8.61                | 5.20                                  | 6.51         | 6.20         |
| Wasatch           | 0.91   | 1.57   | 1.83   | 1.73   | 0.92                | 0.47                                  | 0.44         | 1.09         |
| REGIONAL TOTALS   | 23.91  | 24.09  | 25.61  | 36.47  | 33.55               | 30.82                                 | 28.43        | 34.88        |
| Southern Region   |        |        |        |        |                     |                                       |              |              |
| Beaver            | 0.32   | 1.30   | 1.12   | 0.95   | 0.68                | 0.40                                  | 0.44         | 0.92         |
| Garfield          | 0.47   | 0.61   | 3.04   | 0.26   | 0.42                | 2.66                                  | 1.16         | 0.09         |
| Iron              | 1.82   | 1.23   | 2.94   | 0.26   | 1.54                | 0.92                                  | 2.02         | 1.03         |
| Kane              | 2.05   | 1.98   | 2.43   | 0.33   | 0.84                | 1.23                                  | 0.90         | 1.33         |
| Millard           | 3.64   | 5.66   | 4.26   | 3.48   | 2.99                | 2.80                                  | 5.02         | 4.18         |
| Piute             | 0.12   | .0.20  | 0.30   | 0.08   | 0.22                | 0.09                                  | 0.61         | 0.06         |
| Sevier            | 0.56   | 1.23   | 0.91   | 1.22   | 2.28                | 1.66                                  | 3.07         | 1.75         |
| Washington        | 5.05   | 10.99  | 6.09   | 0.77   | 1.90                | 2.69                                  | 2.02         | 1.34         |
| Wayne             | 2.43   | 2.18   | 1.17   | 0.48   | 0.77                | 1.02                                  | 1.08         | 1,12         |
| REGIONAL TOTALS   | 16.46  | 25.35  | 22.26  | 7.88   | 11.69               | 13.46                                 | 16.33        | 11.84        |
| Northeastern Req. | ion    |        |        |        |                     |                                       |              |              |
| Daggett           | 2.20   | 1.84   | 5.58   | 4.41   | 2.82                | 3.21                                  | 2.37         | 3.28         |
| Duchesne          | 13.17  | 9.21   | 7.05   | 7.68   | 9.43                | 12.37                                 | 8.55         | 10.98        |
| Uintah _          | 14.23  | 5.87   | 3.35   | 7.03   | 13.20               | 19.31                                 | 13.44        | 9.10         |
| REGIONAL TOTALS   | 29.61  | 16.93  | 15.97  | 19.13  | 25.45               | 34.89                                 | 24.27        | 23.36        |
| Southeastern Reg: |        |        |        |        |                     |                                       |              |              |
| Carbon            | 4.90   | 7.30   | 4.87   | 6.26   | 4.65                | 4.56                                  | 5.83         | 5.04         |
| Emery             | 4.69   | 9.76   | 9.53   | 5.63   | 5.91                | 3.78                                  | 4.20         | 3.26         |
| Grand             | 5.99   | 4.16   | 5.07   | 2.53   | 0.74                | 0.26                                  | 0.66         | 0.66         |
| San Juan          | 4.66   | 3.41   | 6.90   | 2.90   | 0.77                | 1.43                                  | 2.33         | 3.15         |
| REGIONAL TOTALS   | 20.25  | 24.64  | 26.37  | 17.34  | 12.09               | 10.04                                 | 13.02        | 12.12        |
| Unknown counties  | 0.00   | 0.68   | 0.25   | 2.66   | 2.24                | 0.24                                  | 0.00         | 0.00         |
| STATE TOTALS      | 100.00 | 100.00 | 100.00 | 100.00 | 100.00              | 100.00                                | 100.00       | 100.00       |

Table 6. Percentage distribution of cottontail rabbit harvest by region and county, 1984-91.

| Region and        |        |        |        | · ·    | Year   |        |        |        |
|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>County</b>     | 1984   | 1985   | 1986   | 1987   | 1988   | 1989   | 1990   | 199;   |
| Northern Region   |        |        |        |        | -      |        |        |        |
| Box Elder         | 7.77   | 5.40   | 6.52   | 8.17   | 10.53  | 7.34   | 9.00   | 9.33   |
| Cache             | 0.72   | 0.66   | 1.18   | 0.73   | 1.15   | 0.93   | 1.67   | 1.53   |
| Davis             | 0.21   | 1.42   | 0.08   | 0.09   | 0.37   | 0.09   | 0.09   | 0.13   |
| Morgan            | 0.63   | 1.37   | 1.65   | 0.19   | 0.20   | 0.27   | 0.15   | 0.36   |
| Rich              | 1.32   | 1.11   | 2.24   | 0.57   | 0.87   | 1.84   | 3.28   | 2.12   |
| Summit            | 1.74   | 2.13   | 1.61   | 0.57   | 1.30   | 1.64   | 1.19   | 2.16   |
| Weber             | 0.84   | 1.33   | 0.68   | 0.73   | 1.06   | 0.68   | 0.35   | 0.69   |
| REGIONAL TOTALS   | 13.23  | 13.42  | 13.97  | 11.07  | 15.51  | 12.80  | 15.74  | 16.33  |
| Central Region    |        |        |        |        |        |        | · · ·  |        |
| Juab              | 3.84   | 2.39   | 3.05   | 4.26   | 6.15   | 5.48   | 5.15   | 6.10   |
| Salt Lake         | 2.67   | 1.46   | 0.72   | 1.36   | 1.46   | 0.39   | 1.17   | 0.6    |
| Sanpete           | 1.74   | 2.26   | 3.30   | 6.45   | 3.57   | 4.41   | 5.35   | 2.98   |
| Tooele            | 11.43  | 12.98  | 11.68  | 12.63  | 15.44  | 16.16  | 14.61  | 18.3   |
| Utah              | 6.78   | 8.24   | 6.81   | 13.07  | 12.83  | 7.61   | 10.50  | 8.4    |
| Wasatch           | 1.35   | 2.13   | 1.82   | 1.94   | 1.44   | 0.41   | 0.86   | 1.39   |
| REGIONAL TOTALS   | 27.82  | 29.46  | 27.38  | 39.73  | 40.90  | 34.45  | 37.63  | 37.9   |
| Southern Region   |        |        |        |        |        |        |        |        |
| Beaver            | 1.20   | 1.68   | 1.52   | 1.36   | 0.73   | 1.27   | 0.51   | 1.7    |
| Garfield          | 0.57   | 0.40   | 2.03   | 0.54   | 0.46   | 1.77   | 1.54   | 0.2    |
| Iron              | 1.26   | 1.33   | 2.84   | 0.85   | 1.51   | 1.41   | 2.27   | 1.3    |
| Kane              | 0.96   | 0.62   | 1.82   | 0.82   | 0.92   | 1.61   | 1.36   | 1.9    |
| Millard           | 4.20   | 4.30   | 5.08   | 6.07   | 4.24   | 2.91   | 3.72   | 4.9    |
| Piute             | 0.18   | 0.13   | 0.25   | 0.12   | 0.27   | 0.41   | 0.62   | 0.1    |
| Sevier            | 0.72   | 1.42   | 1.35   | 1.68   | 2.43   | 2.25   | 2.88   | 3.6    |
| Washington        | 5.52   | 6.60   | 5.42   | 1.17   | 1.40   | 3.91   | 3.10   | 2.6    |
| Wayne             | 1.29   | 0.97   | 0.63   | 0.57   | 0.80   | 1.27   | 1.10   | 1.2    |
| REGIONAL TOTALS   | 15.91  | 17.46  | 20.95  | 13.23  | 12.81  | 16.82  | 17.10  | 17.8   |
| Northeastern Regi | Lon    |        |        |        |        |        |        |        |
| Daggett           | 1.89   | 1.19   | 2.37   | 2.00   | 1.44   | 2.57   | 1.80   | 2.4    |
| Duchesne          | 8.34   | 9.44   | 5.80   | 6.74   | 6.13   | 10.91  | 6.36   | 6.8    |
| Uintah            | 9.87   | 7.84   | 5.71   | 5.34   | 8.81   | 8.05   | 7.55   | 7.6    |
| REGIONAL TOTALS   | 20.11  | 18.48  | 13.88  | 14.09  | 16.38  | 21.52  | 15.71  | 16.9   |
| Southeastern Regi | Lon    |        |        |        |        |        |        |        |
| Carbon            | 9.66   | 6.82   | 8.34   | 6.68   | 5.60   | 6.20   | 5.55   | 3.8    |
| Emery             | 6.12   | 9.92   | 7.58   | 8.08   | 5.15   | 6.23   | 5.39   | 4.2    |
| Grand             | 3.99   | 1.55   | 3.30   | 1.81   | 0.56   | 0.34   | 0.57   | 0.5    |
| San Juan          | 3.15   | 2.48   | 4.53   | 1.62   | 0.72   | 1.48   | 2.31   | 2.2    |
| REGIONAL TOTALS   | 22.93  | 20.78  | 23.74  | 18.19  | 12.04  | 14.25  | 13.82  | 10.9   |
| Unknown counties  | 0.00   | 0.40   | 0.08   | 3.65   | 2.33   | 0.16   | 0.00   | 0.0    |
| STATE TOTALS      | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Table 7. Percentage distribution of cottontail rabbit hunting pressure by region and county, 1984-91.

-

|           | Total   | Total     | Hunter-Days | <b>Cottontails Per</b> | Cottontails Pe |
|-----------|---------|-----------|-------------|------------------------|----------------|
| Year      | Hunters | Harvest   | Afield      | Hunter-Day             | Hunter         |
| 967       | 23,249  | 181,812   | 92,681      | 1.95                   | 7.79           |
| 1968      | 26,889  | 225,450   | 93,126      | 2,42                   | 8.38           |
| 1969      | 29,760  | 184,034   | 119,596     | 1.54                   | 6.18           |
| 1970      | 24,486  | 195,248   | 103,725     | 1.86                   | 7.97           |
| 1971      | 30,824  | 239,511   | 145,287     | 1.65                   | 7.78           |
| 1972      | 22,835  | 155,102   | 105,941     | 1.46                   | 6.79           |
| 1973      | 20,109  | 88,603    | 87,036      | 1.02                   | 4.41           |
| 1974      | 22,737  | 86,506    | 85,499      | 1.01                   | 3.80           |
| 1975      | 24,803  | 154,182   | 116,707     | 1.32                   | 6.22           |
| 1976      | 28,239  | 235,952   | 126,737     | 1.86                   | 8.39           |
| 1977      | 35,831  | 269,263   | 157,257     | 1.71                   | 7.51           |
| L978      | 35,590  | 401,071   | 163,019     | 2.46                   | 11,27          |
| 1979      | 33,385  | 200,223   | 127,497     | 1.57                   | 6.00           |
| 1980      | 25,156  | 127,652   | 87,051      | 1.47                   | 5.07           |
| 1981      | 25,906  | 149,765   | 104,183     | 1.44                   | 5.78           |
| 982       | 26,714  | 156,696   | 105,644     | 1.48                   | 5.87           |
| 983       | 22,467  | 180,767   | 96,151      | 1.88                   | 8.05           |
| 984       | 18,616  | 69,186    | 67,643      | 1.02                   | 3.72           |
| .985      | 14,059  | 31,397    | 48,371      | 0.65                   | 2.23           |
| 1986      | 13,992  | 40,636    | 48,694      | 0.83                   | 2.90           |
| 987       | 20,322  | 110,411   | 77,047      | 1.43                   | 5.43           |
| 988       | 24,076  | 150,386   | 97,190      | 1.55                   | 6.25           |
| 1989      | 22,878  | 120,075   | 91,264      | 1.32                   | 5.25           |
| 1990      | 23,070  | 127,389   | 93,515      | 1.36                   | 5.52           |
| 991       | 21,137  | 111,407   | 82,772      | 1.35                   | 5.27           |
| Fotals    |         |           |             |                        |                |
| (1967-91) | 617,130 | 3,992,724 | 2,523,633   | -                      | <u> </u>       |
| Averages  |         |           |             |                        |                |
| (1967-90) | 24,833  | 161,722   | 101,703     | 1.51                   | 6.19           |

 Table 8. Statewide summary of cottontail rabbit harvest statistics, 1967-91.

| Total         Total <th< th=""><th>Rabbits/<br/>s 100 Hr</th><th></th><th></th><th>CUMPAGE MURIC</th><th></th><th></th><th></th></th<>  | Rabbits/<br>s 100 Hr |          |            | CUMPAGE MURIC |          |          |          |
|---|----------------------|----------|------------|---------------|----------|----------|----------|
| Nature         Nature         Nature         Nature           der         13         28         26         36           der         13         28         26         36           an         1         2         1         1           an         1         2         2         1           and         1         2         2         3         3           bit         1         2         2         2         1           bit         1         2         2         1         1           bit         1         30         23         3         3           bit         1         30         23         3         1           bit         1         2         1         1         1           bit         1         1         2         1         1           bit         1   |                      | Complete | Total      | Total         | Total    | Rabbits/ | Rabbits/ |
| Ider     13     28     26     36       an     -     -     -     -     -       and     Region     -     -     -     -       and     -     -     -     -     -       and <td></td> <td>Hunts</td> <td>Hunters</td> <td>Hours</td> <td>Rabbits</td> <td>100 Hr</td> <td>Hunter</td>   |                      | Hunts    | Hunters    | Hours         | Rabbits  | 100 Hr   | Hunter   |
| all       1       2       2       1         all       1       2       2       1         all Region       1       2       2       1         all Region       1       30       28       37       1         all Region       1       1       2       2       1       1         all Region       1       1       2       2       1 <td< td=""><td>130</td><td>•</td><td>t</td><td>¢</td><td>;</td><td></td><td></td></td<>  | 130                  | •        | t          | ¢             | ;        |          |          |
| ati ti 1 2 2 1<br>it 1 2 2 1<br>ONAL TOTALS 1 2 2 1<br>al Region<br>al Region<br>the  | 001                  | Ŷ        | •          | æ             | 2        | 313      | 3.57     |
| alt     -     -     -     -       bit     -     -     -     -     -       ONAL TOTALS     1     2     2     1       ONAL TOTALS     1     30     28     37       bite     -     -     -     -       bite     -     - <t< td=""><td>1</td><td>ı</td><td>1</td><td>1</td><td>I</td><td>I</td><td>1</td></t<>  | 1                    | ı        | 1          | 1             | I        | I        | 1        |
| at the second se  | I                    | 1        | I          | I             | I        | 1        | ł        |
| it 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | I                    | I        | ł          | 1             | 1        | 1        | 1        |
| if 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | 1                    | 1        | 1          | I             | ł        | I        | I        |
| NAL TOTALS     14     30     28     37       al Region     -     -     -     -     -       alke     -     -     -     -     -       alke     -     -     -     -     -       al Region     -     -     -     -     -       ch     -     -     -     -     -       ch     -     -     -     -     -       ch     -     -     -     -     -       nat Region     -     -     -     -     -       rin     -     -     -     -     -       nat Region     -     -     -     -     -       nater     3     8     23     11       nater     -     -     -     -     -       nat Region     -     -     -     -     -       nater     -     -     -     -     -       nat Region     -     -     -  | 50                   | ı        | :          | ſ             | ı        |          |          |
| ONAL TOTALS         14         30         28         37           al Region         -         -         -         -         -           ale         -         -         -         -         -         -           ale         -         -         -         -         -         -         -           ele         -         -         -         -         -         -         -         -           ch         - <td< td=""><td>I</td><td>I</td><td>ł</td><td>   </td><td>   </td><td>1</td><td>I</td></td<>  | I                    | I        | ł          |               |          | 1        | I        |
| al Region let let let let let let let let let let   | 10                   |          |            | •             | <u>ا</u> | ,   ;    |          |
| ake   | -                    |          | -          | •             | G        | 515      | 3.51     |
| alte<br>e<br>th<br>th<br>th<br>th<br>th<br>th<br>th<br>th<br>th<br>th   | I                    |          |            |               |          |          |          |
| th<br>th<br>th<br>State Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat                               | I                    | I        | ı          | ł             | 1        | ł        | I        |
| ch<br>ch<br>NAL TOTALS<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>rat Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>ratera Region<br>rate  | I                    | 1        | 1          | I             | ł        | 1        | I        |
| ch<br>ch<br>na Region<br>ra | ı                    | 1        | ł          | ł             | t        | ł        | ı        |
| ch  | I                    | 1        | 1          | 1             | ;        | 1        | I        |
| Ch<br>Ava Region<br>Tra Region<br>Tra Region<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Transmission<br>Tran  | 1                    | I        | :          | 1             | 1        | :        | 1        |
| ONAL TOTALS   | ł                    | ł        | 1          | ı             | I        | 1        |          |
| ra Region<br>Id<br>Id<br>Id<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I  | 1                    |          |            |               |          |          |          |
| id  |                      |          |            |               | ľ        | •        | -        |
| Id<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I<br>I   | 1                    | ł        | I          |               |          |          |          |
| I   | I                    |          | <b>i</b> 1 | l             | 1        | ı        | 1        |
| I   | ı                    | 1        |            | l             | I        | 1.       | I        |
| I   | I                    | : 1      | l          | l             | :        | :        | 1        |
| gtou  | I                    | ł        | )          | ł             | 1        | :        | ;        |
| gton  | l                    | ł        | I          | I             | 1        | 1        | I        |
| gton  | I                    | 1        | ;          | ı             | 1        | 1        | 1        |
| NAL TOTALS  | ł                    | ł        | :          | 1             | I        | ł        | I        |
| NAL TOTALS  |                      | I        | 1          | 1             | I        | :        | ł        |
| Arter Region  | 1                    | 1        | 134        | 639           | 137      | 21       | 1.02     |
| t   | 1                    | I        | 134        | 639           | 137      | 11       | 1.02     |
| De 3 8 23 11<br>21 38 90 56<br>NAL TOTALS 24 46 113 67<br>stern Region  |                      |          |            |               |          |          |          |
| MAL TOTALS 24 66 113 67<br>21 38 90 56<br>NAL TOTALS 24 46 113 67<br>stern Region   | 1                    | I        | I          | I             | 1        | I        | ł        |
| Z1     38     90     56       NAL TOTALS     24     46     113     67       stern Region     -     -     -     -       -     -     -     -     -       -     -     -     -     -       -     -     -     -     -       -     -     -     -     -       -     -     -     -     -       -     -     -     -     -       -     -     -     -     -       -     -     -     -     -       -     -     -     -     -  | 48                   | ŝ        | 80         | 23            | 11       | 8        | 1.38     |
| MAL FUIALS 24 46 113 67<br>Letter Region  | 62                   | 13       | 22         | 64            | 42       | 99       | 1.91     |
|   | 59                   | 16       | 30         | 87            | S        | 19       | 1.77     |
|   |                      |          |            |               |          |          |          |
|   | ł                    | t        | 1          | ı             | ł        | ł        | I        |
|   | 1                    | :        | :          | :             | ı        | ł        | 1        |
| 1   | ,<br>J               | I        | I          | ı             | 1        | 1        | I        |
|   | 1                    | 1        | 1          | :             | 1        | 1        | 1        |
| ALS   |                      | 1        |            |               |          |          |          |
| 104   | 74                   | 91       | 151        | 166           |          | :        | ין<br>י  |

| 1986                 | 1986       |            | 1981      |          | 1980<br>1980   |          | 6861     |          | TYYU     |              | 1771      |          |
|----------------------|------------|------------|-----------|----------|----------------|----------|----------|----------|----------|--------------|-----------|----------|
| " I and the second   | Dabbbad    | Dakhite/   | Dalshite/ | Rahhite/ | Rahhite/       | Rabbits/ | Rahhits/ | Rabbits/ | Rabbits/ | Rabbits/     | Rabbits/  | Rabbits/ |
| Kegion and<br>County | 100 Hr     | Hunter     | 100 Hr    | Hunter   | 100 Hr         | Hunter   | Hunter   | 100 Hr   | Hunter   | 100 Hr       | Hunter    | 100 Hr   |
| Northern Region      |            |            |           |          |                |          |          |          |          |              | ·         |          |
| Box Elder            | ¢          | 0.00       | 28        | 1.43     | 44             | 1.84     | 314      | 3.14     | 25       | 1.50         | 313       | 3.57     |
| Cache                | 1          | 1          | I         | ł        | I              | ł        | I        | ı        | ł        | 1            | ı         | 1        |
| Davis                | ł          | I          | :         | 1        | ł              | I        | 100      | 1.25     | ł        | ł            | 1         | 1        |
| Morgan               | 1          | ł          | ł         | ł        | 1              | 1        | ł        | 1        | :        | :            | 1         | ł        |
| Rich                 | I          | ł          | I         | :        | <del>1</del> 3 | 1.50     | 4        | 1.86     | 1        | <b>1</b>     | I         | 1        |
| Summit               | 1          | ł          | 1         | 1        | ł              | ł        | ,<br>1   | I        | ı        | 1            | ı         | ŀ        |
| Weher                | 1          | I          | I         | 1        | :              | ł        | ł        | 1        | 1        | 1            | I         | 1        |
| REGIONAL TOTALS      | •          | 0.00       | 28        | 0.20     | 44             | 1.77     | 93       | 2.22     | 25       | 0.21         | 313       | 3.57     |
| Central Region       |            |            |           |          |                |          |          |          |          |              |           |          |
| Juab                 | ł          | 1          | 1         | 1        | r              | ł        | ł        | I        | 1        | 1            | 1         | 1        |
| Salt Lake            | ł          | I          | ı         | 1        | ł              | ł        | ł        | ł        | ı        | 1            | ł         | ı        |
| Sanpete              | I          | I          | ł         | I        | ł              | ł        | :        | ł        | 1        | 1            | I         | 1        |
| Tooele               | :          | 1          | 1         | 1        | ł              | I        | 1        | ł        | ł        | 1            | 1         | ł        |
| Utah                 | ;          | ł          | 1         | 1        | ł              | 1        | ł        | ł        | I        | 1            | ł         | 1        |
| Wasatch              | ł          | ł          | ł         | 1        | 1              | ľ        | 1        | <b>1</b> | I        | 1            | 1         | 1        |
| REGIONAL TOTALS      | :          | :          | ;         | ;        | ł              | :        | 1        | t        | 1        | r            | ı         | ;        |
| Southern Region      |            |            |           |          |                |          |          |          |          |              |           |          |
| Веаver               | 1          | Ì          | ı         | ļ        | ;              | I        | ł        | 1        | •        | 1            | I         | 1        |
| Garfield             | ł          | 1          | 1         | 1        | ;              | :        | ł        | 1        | 1        | 1            | I         | <b>I</b> |
| Iron .               | 1          | <b>, I</b> | I         | ł        | 1              | :        | :        | 1        | 1        | 1            | 1         | 1        |
| Kane                 | I          | ł          | 1         | 1        | ł              | 1        | ł        | ł        | ۱.       | I            |           | 1        |
| Millard              | ı          | 1          | 1         | 1        | ;              | 1        | 1        | ľ        | I        | 1            | I         | 1        |
| Piute                | 1          | ł          | I         | 1        | 1              | ı        | I        | 1        | ł        | 1            | I         | I        |
| Sevier               | 1          | I          | •         | I        | 1              | :        | 1        | 1        | :        | 1            | ;         | 1        |
| Washington           | 1          | t          | I         | I        | 1              | 1        | 150      | 1.50     | I        | ł            | 1         | 1        |
| Wayne                | I          | I          | Ì         | 1        | 1              | :        | I        | 4        | ,        | I            | 21        | 1.02     |
| REGIONAL TOTALS      | 1          |            | :         | 1        | 1              | 1        | 150      | 0.17     | ı        | ı            | 21        | 1.02     |
| Northeastern Region  |            |            |           |          |                |          |          |          |          |              |           |          |
| Daggett              | 1          | ;          | ¢         | 3.33     | 379            | 8.00     | 1        | ı        | 1        | ł            | i         | 1        |
| Duchesue             | 0          | 00.0       | 8         | 3.33     | 104            | 2.94     | 1        | I<br>,   | 450      | <b>00.</b> 6 | <b>\$</b> | 1.38     |
| Uintah               | 100        | 1.50       | 70        | 1.76     | 147            | 4.00     | 93       | 2,20     | 179      | 8.10         | ঙ         | 1.91     |
| REGIONAL TOTALS      | <b>S</b> 0 | 0.75       | 89        | 1.93     | 149            | 4.01     | 93       | 0.73     | 187      | 5.10         | 61        | 1.77     |
| Southeastern Region  |            |            |           |          |                |          |          |          |          |              |           |          |
| Carbon               | 158        | 3.80       | 1         | I        | 0              | 0.0      | 1        | :        | 1        | 1            | I         | I        |
| Emery                | 33         | 1.00       | 1         | 1        | 33             | 1.00     | ł        | :        | :        | ı            | 1         | I        |
| Grand                | :          | ł          | 1         | ł        | 4              | 0.83     | :        | ı        | ;        | I            | I         | I        |
| San Juan             | ł          | I          | 1         |          | 20             | 0.33     | 1        | , I      | :        | :            | 1         | 1        |
| REGIONAL TOTALS      | 133        | 3.33       | 1         | 1        | 32             | 0.67     | 1        | L        | 1        | 1            | 1         | 1        |
|                      |            |            |           |          |                |          |          |          |          |              |           |          |

### SNOWSHOE HARE

#### <u>Harvest</u>

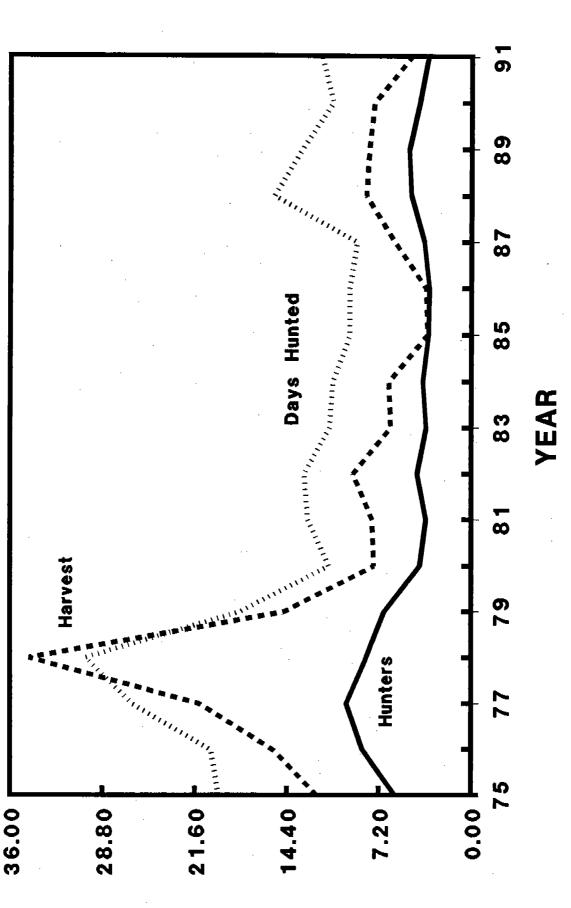
Results of the 1991 hunter questionnaire are found in Table 11. Trends of snowshoe hares bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) are found in Tables 12-14. Trend in statewide harvest statistics by year are shown in Table 15 and Figures 1 and 2. The 1991 season compared to 1990 and the 16-year average follow:

|                          |             | Percent | <u>change from</u> |
|--------------------------|-------------|---------|--------------------|
|                          | <u>1991</u> | 1990    | Average            |
| Snowshoe hare hunters    | 3,427       | -16     | -33                |
| Snowshoe hares harvested | 4,731       | -38     | -56                |
| Hunter-days afield       | 11,742      | +8      | -22                |
| Snowshoes per hunter-day | 0.40        | -43     | -39                |
| Snowshoes per hunter     | 1.38        | -25     | -29                |

Significant misidentification of white-tailed jackrabbits as snowshoe hares was anticipated prior to mailing the harvest questionnaire following the first season in 1975. This proved to be the case as a significant harvest of snowshoe hares was reported for counties outside the known range of the species. It was assumed that the problem was statewide, not just confined to those counties. Several attempts were made in the 1970's to reduce misidentification through pictures and descriptions in leaflets and questionnaires.

Beginning in 1988, harvest questionnaires, and in 1989 the Upland Game Proclamation had drawings and descriptions of the various rabbits in an attempt to reduce misidentification. We believe this has been successful. However, use of a color print insert would be better.

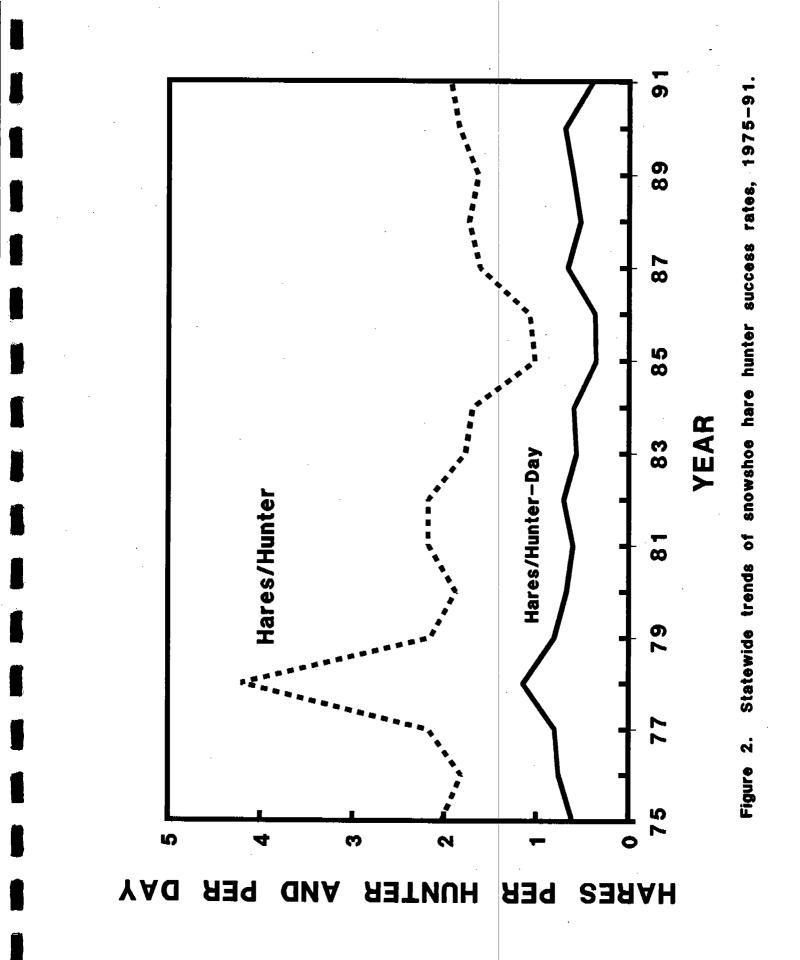
Results of the 1991 harvest questionnaire indicates a 43 percent decrease in hunter success compared to 1990. Success was below the 16-year average, even though hunters spent 8 percent more time afield in 1991.



Statewide trends of snowshoe hare harvest statistics, 1975-91.

Figure 1.

TOTAL (X 1,000)



| REGION AND<br>COUNTY | SAMPLE<br>SIZE* | HUNTER-DAYS<br>AFIELD | SNOWSHOES<br>BAGGED | SNOWSHOES PER<br>HUNTER-DAY | ۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰ | そ OF<br>HARVEST |
|----------------------|-----------------|-----------------------|---------------------|-----------------------------|---------------------------------------|-----------------|
| NODENEDN DECTON      |                 | <b></b>               |                     |                             |                                       |                 |
| NORTHERN REGION      |                 | 005                   | 212                 | 0.38                        | 7.11                                  | <i>c c</i> 2    |
| BOX ELDER            | 21              | 835                   | 313                 |                             | 6.37                                  | 6.62            |
| CACHE                | 15              | 748                   | 226                 | 0.30                        |                                       | 4.78            |
| DAVIS                | 2               | 539                   | 17                  | 0.03                        | 4.59                                  | 0.37            |
| MORGAN               | 3               | 104                   | 226                 | 2.17                        | 0.89                                  | 4.78            |
| RICH                 | 18              | 730 <sup>′</sup>      | 956                 | 1.31                        | 6.22                                  | 20.22           |
| SUMMIT               | 17              | 869                   | 208                 | 0.24                        | 7.41                                  | 4.41            |
| WEBER                | 4               | 347                   | 86                  | 0.25                        | 2.96                                  | 1.84            |
| REGIONAL TOTALS      | 80              | 4,175                 | 2,035               | 0.49                        | 35.56                                 | 4.3.02          |
| CENTRAL REGION       |                 |                       |                     |                             |                                       |                 |
| JUAB                 | 3               | 139                   | 69                  | 0.50                        | 1.19                                  | 1.47            |
| SALT LAKE            | 2               | 156                   | 34                  | 0.22                        | 1.33                                  | 0.74            |
| SANPETE              | 16              | 695                   | 539                 | 0.78                        | 5.93                                  | 11.40           |
| TOOELE               | 16              | 1,200                 | 417                 | 0.35                        | 10.22                                 | 8.83            |
| UTAH                 | 14              | 365                   | 260                 | 0.71                        | 3.11                                  | 5.52            |
| WASATCH              | 19              | 782                   | 173                 | 0.22                        | 6.67                                  | 3.68            |
| REGIONAL TOTALS      | 70              | 3,340                 | 1,496               | 0.45                        | 28.45                                 | 31.62           |
|                      |                 |                       |                     |                             |                                       |                 |
| SOUTHERN REGION      | •               | 2.4                   |                     | 0.00                        | 0.20                                  | 0.00            |
| BEAVER               | 1               | . 34 .                | 0                   | 0.00                        | 0.30                                  | 0.00            |
| GARFIELD             | 2               | 52                    | 52                  | 1.00                        | 0.44                                  | 1.10            |
| IRON                 | 0               | 0                     | 0                   | 0.00                        | 0.00                                  | 0.00            |
| KANE                 | 1               | 17                    | 0                   | 0.00                        | 0.15                                  | 0.00            |
| MILLARD              | 0               | 0                     | 0                   | 0.00                        | 0.00                                  | 0.00            |
| PIUTE                | 1               | 34                    | 0                   | 0.00                        | 0.30                                  | 0.00            |
| SEVIER               | 14              | 800                   | 487                 | 0.61                        | 6.82                                  | 10.30           |
| WASHINGTON           | 0               | 0                     | 0                   | 0.00                        | 0.00                                  | 0.00            |
| WAYNE                | 4               | 156                   | 69                  | 0.44                        | 1.33                                  | 1.47            |
| REGIONAL TOTALS      | 23              | 1,095                 | 608                 | 0.56                        | 9.33                                  | 12.87           |
| NORTHEASTERN REG     |                 |                       |                     |                             |                                       |                 |
| DAGGETT              | 5               | 382                   | 52                  | 0.14                        | 3.26                                  | 1.10            |
| DUCHESNE             | 9               | 1,617                 | 295                 | 0.18                        | 13.78                                 | 6.25            |
| UINTAH               | 11              | 608                   | 86                  | 0.14                        | 5.19                                  | 1.84            |
| REGIONAL TOTAL       | 25              | 2,609                 | 434                 | 0.17                        | 22.22                                 | 9.19            |
| SOUTHEASTERN REG     | ION             |                       |                     |                             |                                       |                 |
| CARBON               | 7               | 330                   | 69                  | 0.21                        | 2.81                                  | 1.47            |
| EMERY                | 7               | 191                   | 86                  | 0.45                        | 1.63                                  | 1.84            |
| GRAND                | 0               | 0                     | 0                   | 0.00                        | 0.00                                  | 0.00            |
| SAN JUAN             | 0               | 0                     | 0                   | 0.00                        | 0.00                                  | 0.00            |
| REGIONAL TOTALS      | 14              | 521                   | 156                 | 0.30                        | 4.44                                  | 3.31            |
| UNKNOWN              | 0               | 0                     | 0                   | 0.00                        | 0.00                                  | 0.00            |
| <br>STATE TOTALS     | 212             | 11,742                | 4,731               | 0.40                        | 100.00                                | 100.00          |

Table 11. Summary of snowshoe hare hunter success and distribution of harvest and hunting pressure by region and county, 1991.

\*Total hunter trips from questionnaire returns.

| Region and            |          |              |      |         | Year |      |      |      |
|-----------------------|----------|--------------|------|---------|------|------|------|------|
| County                | 1984     | 1985         | 1986 | 1987    | 1988 | 1989 | 1990 | 1991 |
| Northern Region       | <b>.</b> | <b>•</b> - • |      |         |      |      |      |      |
| Box Elder             | 2.93     | 0.14         | 0.38 | 0.35    | 0.78 | 0.33 | 0.54 | 0.38 |
| Cache                 | 1.27     | 0.75         | 0.00 | 1.67    | 0.21 | 1.10 | 0.56 | 0.30 |
| Davis                 | 0.29     | 0.11         | 0.50 | 0.25    | 0.40 | 1.50 | 0.00 | 0.03 |
| Morgan                | 0.14     | 0.00         | 0.03 | 0.00    | 0.67 | 0.36 | 0.80 | 2.17 |
| Rich                  | 0.58     | 0.06         | 0.56 | 1.27    | 0.33 | 0.51 | 0.76 | 1.31 |
| Summit                | 0.61     | 0.63         | 0.29 | 0.50    | 0.36 | 0.73 | 1.05 | 0.24 |
| Weber                 | 0.31     | 0.17         | 1.00 | 0.38    | 0.25 | 0.50 | 0.25 | 0.25 |
| REGIONAL TOTALS       | 1.30     | 0.33         | 0.29 | 0.76    | 0.40 | 0.63 | 0.70 | 0.49 |
| <u>Central Region</u> |          |              |      |         |      |      |      |      |
| Juab                  | 0.33     | 0.00         | 1.44 | 0.00    | 0,17 | 0.00 | 0.53 | 0.50 |
| Salt Lake             | 0.23     | 0.17         | 0.30 | 0.00    | 0.48 | 0.38 | 0.00 | 0.22 |
| Sanpete               | 0.80     | 0.23         | 0.30 | 0.57    | 0,68 | 0.64 | 1.08 | 0.78 |
| Tooele                | 0.68     | 0.24         | 0.21 | 0.75    | 0.28 | 0.77 | 0.32 | 0.35 |
| Utah                  | 0.71     | 0.64         | 0.53 | 0.39    | 0.44 | 0.37 | 0.51 | 0.71 |
| Wasatch               | 0.44     | 0.32         | 0.68 | 0.56    | 0.77 | 1.00 | 0.17 | 0.22 |
| REGIONAL TOTALS       | 0.55     | 0.33         | 0.54 | 0.48    | 0.50 | 0.65 | 0.55 | 0.45 |
| Southern Region       |          |              |      |         |      |      |      |      |
| Beaver                | 0.00     | 0.00         | 0.00 | 0.00    | 0,00 | 0.00 | 0.50 | 0.00 |
| Garfield              | 0.00     | 0.40         | 0.11 | 0.00    | 0.00 | 0.35 | 0.67 | 1.00 |
| Iron                  | 3.00     | 0.50         | 0.00 | 0.00    | 0,00 | 0.00 | 0.00 | 0.00 |
| Kane                  | 0.00     | 0.75         | 0.00 | 0.00    | 0,00 | 0.00 | 0.00 | 0.00 |
| Millard               | 0.00     | 0.00         | 1.00 | 2.80    | 1,20 | 1.00 | 0.00 | 0.00 |
| Piute                 | 0.20     | 0.00         | 0.00 | 0.00    | 3,00 | 0.64 | 0.43 | 0.00 |
| Sevier                | 0.00     | 0.25         | 0.63 | 0.60    | 0,75 | 0.55 | 0.96 | 0.61 |
| Washington            | 0.00     | 0.50         | 0.00 | 0.00    | 2,00 | 0.00 | 0.00 | 0.00 |
| Wayne                 | 1.22     | 1.00         | 0.38 | 1.14    | 0.00 | 0.50 | 0.39 | 0.44 |
| REGIONAL TOTALS       | 0.65     | 0.46         | 0.45 | 0.88    | 0.47 | 0.50 | 0.62 | 0.56 |
| Northeastern Regi     |          |              |      |         |      |      |      |      |
| Daggett               | 0.33     | 1.00         | 0.50 | 1.00    | 1,96 | 1.00 | 0.50 | 0.14 |
| Duchesne              | 0.43     | 0.30         | 0.41 | 0.65    | 0.63 | 0.54 | 1.33 | 0.18 |
| Uintah                | 0.20     | 0.49         | 0.13 | 1.31    | 0.89 | 0.23 | 0.88 | 0.14 |
| REGIONAL TOTALS       | 0.30     | 0.41         | 0.28 | 0,91    | 1.02 | 0.40 | 1.17 | 0.17 |
| Southeastern Regi     |          |              | ·    |         | •    |      | ·    |      |
| Carbon                | 0.13     | 0.29         | 0.09 | 1.00    | 0.46 | 1.00 | 0.71 | 0.21 |
| Emery                 | 0.19     | 0.67         | 0.13 | 0.57    | 0.94 | 0.54 | 0.37 | 0.45 |
| Grand                 | 0.00     | 0.00         | 0.75 | 0.00    | 0.00 | 0.00 | 2.00 | 0.00 |
| San Juan              | 2.00     | 0.00         | 1.00 | 5.00    | 1.00 | 1.67 | 0.00 | 0.00 |
| REGIONAL TOTALS       | 0.17     | 0.37         | 0.16 | 0.81    | 0.83 | 0.77 | 0.56 | 0.30 |
|                       |          |              |      |         |      |      |      |      |
| Unknown counties      | 0.00     | 0.00         | 0.00 | 0.40    | 0.42 | 0.00 | 0.00 | 0.00 |
|                       |          |              |      |         |      |      |      |      |
| STATE TOTALS          | 0.60     | 0.36         | 0.37 | 0.67    | 0.53 | 0.61 | 0.70 | 0.40 |
|                       |          |              |      | · · · · |      |      |      |      |

Table 12. Summary of snowshoe hare bagged per hunter-day by region and county, 1984-91.

-----

| Region and        | 1004   | 1005   |        |        | Year   |        |         |          |
|-------------------|--------|--------|--------|--------|--------|--------|---------|----------|
| County            | 1984   | 1985   | 1986   | 1987   | 1988   | 1989   | 1990    | <u> </u> |
| Northern Region   |        |        |        |        |        |        |         |          |
| Box Elder         | 36.79  | 3.12   | 3.49   | 3.26   | 14.80  | 3.11   | 10.57   | 6.62     |
| Cache             | 4.40   | 3.73   | 0.00   | 10.20  | 4.86   | 11.40  | 5.15    | 4.78     |
| Davis             | 0.62   | 1.87   | 0.58   | 0.40   | 1.21   | 0.78   | 0.00    | 0.37     |
| Morgan            | 0.31   | 0.00   | 0.58   | 0.00   | 0.40   | 1.04   | 1.08    | 4.78     |
| Rich              | 2.20   | 0.61   | 5.80   | 7.75   | 3.24   | 7.77   | 14.09   | 20.22    |
| Summit            | 7.85   | 24.99  | 6.98   | 4.89   | 6.08   | 4.15   | 11.11   | 4.41     |
| Weber             | 1.25   | 1.22   | 5.23   | 1.22   | 1.82   | 1.30   | 0.27    | 1.84     |
| REGIONAL TOTALS   | 53.46  | 35.61  | 22.67  | 27.75  | 32.45  | 29.54  | 4 42.28 | 43.02    |
| Central Region    |        |        |        |        |        |        |         |          |
| Juab              | 0.62   | 0.00   | 13.37  | 0.00   | 0.81   | 0.00   | 2.71    | 1.47     |
| Salt Lake         | 0.93   | 0.61   | 1.74   | 0.00   | 2.43   | 0.78   | 0.00    | 0.74     |
| Sanpete           | 1.25   | 1.87   | 5.80   | 6.93   | 10.14  | 9.33   | 7.05    | 11.40    |
| Tooele            | 4.07   | 5.60   | 3.49   | 4.89   | 3.24   | 8.55   | 3.25    | 8.83     |
| Utah              | 6.91   | 9.97   | 14.53  | 8.57   | 6.89   | 3.89   | 4.88    | 5.52     |
| Wasatch           | 5.02   | 3.73   | 14.53  | 8.16   | 8.31   | 6.22   | 0.27    | 3.68     |
| REGIONAL TOTALS   | 18.87  | 21.87  | 53.49  | 28.57  |        | 28.76  | 18.16   | 31.62    |
| Southern Region   |        |        |        | 20107  |        | 20.70  |         | 51.02    |
| Beaver            | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.27    | 0.00     |
| Garfield          | 0.00   | 1.22   | 0.58   | 0.00   | 0.00   | 1.81   | 1.08    | 1.10     |
| Iron              | 0.93   | 1.22   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00    | 0.00     |
| Kane              | 0.00   | 1.87   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00    | 0.00     |
| Millard           | 0.00   | 0.00   | 2.33   | 5.71   |        |        |         |          |
| Piute             | 0.00   | 0.00   |        | 0.00   | 1.21   | 1.55   | 0.00    | 0.00     |
|                   |        |        | 0.00   |        | 1.21   | 1.81   | 0.81    | 0.00     |
| Sevier            | 0.00   | 1.22   | 2.91   | 2.44   | 1.82   | 2.85   | 7.05    | 10.30    |
| Washington        | 0.00   | 2,48   | 0.00   | 0.00   | 0.40   | 0.00   | 0.00    | 0.00     |
| Wayne             | 6.91   | 2.48   | 1.74   | 3.26   | 0.00   | 4.66   | 3.25    | 1.47     |
| REGIONAL TOTALS   | 8.16   | 10.62  | 7.56   | 11.42  | 4.66   | 2.69   | 12.47   | 12.87    |
| Northeastern Reg. |        |        |        |        |        |        |         |          |
| Daggett           | 0.31   | 3.12   | 0.58   | 0.81   | 9.53   | 0.26   | 0.54    | 1.10     |
| Duchesne          | 8.16   | 9.97   | 6.98   | 6.93   | 6.28   | 6.74   | 16.26   | 6.25     |
| Uintah _          | 5.34   | 11.87  | 2.33   | 8.57   | 5.07   | 2.33   | 3.79    | 1.84     |
| REGIONAL TOTALS   | 13.83  | 24.99  | 9.88   | 16.32  | 20.89  | 9.33   | 20.60   | 9.19     |
| Southeastern Reg. | ion    |        |        |        |        |        |         |          |
| Carbon            | 3.45   | 4.37   | 2.33   | 5.71   | 1.21   | 10.88  | 2.71    | 1.47     |
| Emery             | 0.93   | 2.48   | 1.16   | 6.53   | 6.49   | 7.51   | 2.71    | 1.84     |
| Grand             | 0.00   | 0.00   | 1.74   | 0.00   | 0.00   | 0.00   | 1.08    | 0.00     |
| San Juan          | 1.25   | 0.00   | 1.16   | 2.04   | 1.41   | 1.30   | 0.00    | 0.00     |
| REGIONAL TOTALS   | 5.65   | 6,85   | 6.40   | 14.28  | 9.12   | 19,69  | 6.50    | 3.31     |
| Unknown counties  | 0.00   | 0.00   | 0.00   | 1.63   | 1.01   | 0.00   | 0.00    | 0.00     |
| STATE TOTALS      | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00  | 100.00   |

Table 13. Percentage distribution of snowshoe hare harvest by region and county, 1984-91.

| Region and        |        |        | ·····  |          | Year     |        | ·             | · · · · · |
|-------------------|--------|--------|--------|----------|----------|--------|---------------|-----------|
| County _          | 1984   | 1985   | 1986   | 1987     | 1988     | 1989   | 1990          | 1991      |
| Northern Region   |        |        |        | <u> </u> |          | 1705   | 4790          | <u> </u>  |
| Box Elder         | 7.49   | 8.34   | 3.46   | 6.30     | 10.16    | 5.64   | 13.69         | 7.11      |
| Cache             | 2.06   |        | 2.81   | 4.10     | 12.64    | 6.27   | 6.46          | 6.37      |
| Davis             | 1.31   | 6.09   | 0.43   | 1.09     | 1.62     | 0.31   | 0.19          | 4.59      |
| Morgan            | 1.31   | 2.25   | 7.78   | 0.27     | 0.32     | 1.72   | 0.95          | 0.89      |
| Rich              | 2.24   | 3.60   | 3.89   | 4.10     | 5.18     | 9.25   | 12.93         | 6.22      |
| Summit            | 7.68   | 14.22  | 8.86   | 6.57     | 9.08     | 3.45   |               | 7.41      |
| Weber             | 2.43   | 2.71   | 1.94   | 2.19     | 3.89     | 1.57   | 0.76          | 2.96      |
| REGIONAL TOTALS   | 24.53  | 39.05  | 29.16  | 24.65    | 42.91    | 28.21  | 42.40         | 35.56     |
| Central Region    |        |        |        |          |          | 20.21  | 46.40         |           |
| Juab              | 1.12   | 1.13   | 3.46   | 0.54     | 2.59     | 0.00   | 3.61          | 1.19      |
| Salt Lake         | 2.43   | 1.35   | 2.16   | 2.19     | 2.70     | 1.25   | 0.00          | 1.33      |
| Sanpete           | 0.93   | 2.93   | 7.13   | 8.21     | 8.00     | 8.78   | 4.56          | 5.93      |
| Tooele            | 3.55   | 8.34   | 6.05   | 4.38     | 6.27     | 6.74   | 7.03          | 10.22     |
| Utah              | 5.80   | 5.64   | 10.15  | 14.79    | 8.43     | 6.43   | 6.65          | 3.11      |
| Wasatch           | 6.73   | 4.29   | 7.99   | 9.86     | 5.72     | 3.76   | 1.14          | 6.67      |
| REGIONAL TOTALS   | 20.60  | 23.70  | 36.93  | 40.00    | 33.72    | 26.96  | 23.00         | 28.45     |
| Southern Region   |        |        |        |          |          |        |               | 20.45     |
| Beaver            | 1.31   | 0.00   | 0.00   | 0.00     | 1.83     | 0.63   | 0.38          | 0.30      |
| Garfield          | 0.18   | 1.13   | 1.94   |          | 0.10     | 3.13   | 1.14          | 0.44      |
| Iron              | 0.18   | 0.90   | 0.00   | 2.19     | 0.00     | 0.00   | 0.00          | 0.00      |
| Kane              | 0.00   | 0.90   | 0.00   | 0.00     | 0.00     | 0.00   | 0.00          | 0.15      |
| Millard           | 0.18   | 0.90   | 0.86   | 1.36     | 0.54     | 0.94   | 0.19          | 0.00      |
| Piute             | 0.93   | 0.00   | 0.00   | 0.27     | 0.21     | 1.72   | 1.33          | 0.30      |
| Sevier            | 1.31   | 1.80   | 1.73   | 2.73     | 1.29     | 3.13   | 5.13          | 6.82      |
| Washington        | 0.00   | 1.80   | 0.00   | 0.00     | 0.10     | 0.16   | 0.00          | 0.00      |
| Wayne             | 3.37   | 0.90   | 1.73   | 1.91     | 1.18     | 5.64   | 5.89          | 1.33      |
| REGIONAL TOTALS   | 7.49   | 8.34   | 6.26   | 8.76     | 5.29     | 15.36  | 14.07         | 9,33      |
| Northeastern Reg  |        | •      |        |          |          | 10100  | 14.07         |           |
| Daggett           | 0.55   | 1.13   | 0.43   | 0.54     | 2.59     | 0.16   | 0.76          | 3.26      |
| Duchesne          | 11.42  | 12.19  | 6.26   | 7.12     | 5.29     | 7.52   | 8.56          | 13.78     |
| Uintah            | 15.73  | 8.80   | 6.48   | 4.38     | 3.02     | 6.27   | 3.04          | 5.19      |
| REGIONAL TOTALS   | 27.71  | 22.12  | 13.17  | 12.04    | 10,91    | 13.95  | 12.36         | 22.22     |
| Southeastern Reg. |        |        |        |          | <u> </u> | 20.75  | <u>+</u> 2.50 | <u> </u>  |
| Carbon            | 16.10  | 5.41   | 9.94   | 3.83     | 1.40     | 6.58   | 2.66          | 2.81      |
| Emery             | 2.99   | 1.35   | 3.24   | 7.67     | 3.67     | 8.46   | 5.13          | 1.63      |
| Grand             | 0.18   | 0.00   | 0.86   | 0.00     | 0.00     | 0.00   | 0.38          | 0.00      |
| San Juan          | 0.37   | 0.00   | 0.43   | 0.27     | 0.75     | 0.47   | 0.00          | 0.00      |
| REGIONAL TOTALS   | 19.66  | 6.76   | 14.47  | 11.78    | 5.83     | 15.52  | 8.17          | 4.44      |
| Unknown counties  |        | 0.00   | 0.00   | 2.73     | 1.29     | 0.00   | 0.00          | 0.00      |
| STATE TOTALS      | 100.00 | 100.00 | 100.00 | 100.00   | 100.00   | 100.00 | 100.00        | 100.00    |

Table 14. Percentage distribution of snowshoe hare hunting pressure by region and county, 1984-91.

|           | Total   | Total   | Hunter-Days | Hares Per  | Hares Per |
|-----------|---------|---------|-------------|------------|-----------|
| Year      | Hunters | Harvest | Afield      | Hunter-Day | Hunter    |
| 1975      | 5,961   | 12,072  | 19,770      | 0.61       | 2.03      |
| 1976      | 8,502   | 15,500  | 20,367      | 0.76       | 1.82      |
| 1977      | 9,752   | 21,232  | 26,535      | 0.80       | 2.18      |
| 1978      | 8,205   | 34,535  | 30,155      | 1.15       | 4.21      |
| 1979      | 6,787   | 14,641  | 18,115      | 0.81       | 2.16      |
| 1980      | 4,048   | 7,603   | . 11,140    | 0.68       | 1.88      |
| 1981      | 3,554   | 7,750   | 12,782      | 0.61       | 2.18      |
| 1982      | 4,245   | 9,257   | 13,073      | 0.71       | 2.18      |
| 1983      | 3,544   | 6,302   | 11,088      | 0.57       | 1.78      |
| 1984      | 3,796   | 6,455   | 10,840      | 0.60       | 1.70      |
| 1985      | 3,365   | 3,429   | 9,494       | 0.36       | 1.02      |
| 1986      | 3,277   | 3,544   | 9,541       | 0.37       | 1.08      |
| 1987      | 3,702   | 6,005   | 8,947       | 0.67       | 1.62      |
| 1988      | 4,725   | 8,231   | 15,444      | 0.53       | 1.74      |
| 1989      | 4,895   | 8,006   | 13,233      | 0.61       | 1.64      |
| 1990      | 4,095   | 7,593   | 10,825      | 0.70       | 1.85      |
| 1991      | 3,427   | 4,731   | 11,742      | 0.40       | 1.38      |
| Totals    |         |         |             |            |           |
| (1975-91) | 85,880  | 176,886 | 253,091     | <u> </u>   |           |
| Averages  |         |         |             |            |           |
| (1975-90) | 5,153   | 10,760  | 15,084      | 0.66       | 1.94      |

Table 15. Statewide summary of snowshoe hare harvest statistics, 1975-91.

# <u>A P P E N D I C E S</u>

#### APPENDIX A

#### WEATHER CONDITIONS

Weather information used in this report (Tables 1 & 2 and Figures 1 & 2) is from the office of the Utah State Climatologist and N.O.A.A. Climatological Data Periodical.

The 1990-91 winter weather was relatively mild in terms of precipitation and in terms of cold temperature. Below average precipitation fell between December 1990 and February 1990. December 1990 through January 1991 temperatures were well below average. March and May precipitation was above normal, while April, June and July precipitation was below normal across the state.

Overall, temperatures remained below average April through June, while precipitation averages stayed mostly normal.

| Weather Division Jan reo Mar Apr May Jun Jun Aug Sep Oct 190 | Jan  | Feb  | Mar  | Apr  | May  | nıf   | P    | Aug   | Sep        | ð    | Nov  | Dec              |
|--|------|------|------|------|------|-------|------|-------|------------|------|------|------------------|
| No.1 Western   |      |      |      |      |      |       |      |       |            |      |      |                  |
| Normal   | 26.9 | 32.7 | 38.7 | 47.0 | 56.5 | 65.7  | 74.4 | 72.0  | 62.4       | 50.5 | 37.2 | 28.4             |
| 1991   | 21.8 | 35.4 | 39.0 | 45.4 | 53.6 | 64.7  | 75.2 | 74.0  | 62.4       | 50.7 | 36.6 | 24.3             |
| Departure (degrees)  | -5.1 | 2.7  | 0.3  | -1.6 | -2.9 | -1.0  | 9.0  | 2.0   | 0.0        | 0.2  | -0.6 | -4.1             |
| No.2 Dixie   |      |      |      |      |      |       |      |       |            |      |      |                  |
| Normal   | 38.7 | 43.9 | 48.8 | 56.4 | 65.4 | 75.2  | 82.0 | 7.9.7 | 72.6       | 61.5 | 47.8 | 39.8             |
| 1991   | 38.5 | 50.7 | 45.9 | 55.9 | 63.0 | 73.2  | 82.9 | 81.1  | 74.5       | 64.0 | 47.S | 40.2             |
| Departure (degrees)  | -0.2 | 6.8  | -2.9 | -0.5 | -2.4 | -2.0  | 0.9  | 1.4   | 1.9        | 2.5  | -0.3 | 9.4              |
| No.3 North Central   |      |      |      |      |      |       |      |       |            |      |      |                  |
| Normal   | 27.0 | 31.9 | 38.6 | 47.4 | 57.1 | 62.9  | 74.6 | 72.2  | 63.1       | 51.3 | 38.0 | 28.9             |
| 1991   | 22.3 | 34.1 | 40.4 | 45.8 | 53.7 | 65.6  | 75.7 | 74.8  | 62.7       | 51.8 | 37.2 | 26.4             |
| Departure (degrees)  | -4.7 | 2.2  | 1.8  | -1.6 | -3.4 | -0.3  | 1.1  | 2.6   | -0,4       | 0.5  | -0.8 | -3.5             |
| No.4 South Central   |      |      |      |      |      |       |      |       |            |      |      |                  |
| Normal   | 27.0 | 31.6 | 38.6 | 44.9 | 54,0 | 63.1  | 70.4 | 68.0  | 60.2       | 49.8 | 37.1 | 28.8             |
| 1991   | 23.0 | 35.4 | 36.3 | 43.2 | 51.0 | 62.0  | 11.1 | 69.0  | 60.4       | 50.4 | 36.0 | 27.9             |
| Departure (degrees)  | 4.0  | 3.8  | -2.3 | -1.7 | -3.0 | -1.1  | 0.7  | 1.0   | <b>0.2</b> | 9.6  | -1.1 | <del>0</del> .0- |
| No.5 Northern Mountains                                      |      |      |      |      |      |       |      |       |            |      |      |                  |
| Normal   | 21.2 | 24.7 | 30.6 | 40.0 | 49.6 | 57.6  | 65.3 | 63.1  | 55.0       | 44.9 | 32.0 | 23.6             |
| 1661   | 18.2 | 28.6 | 32.0 | 38.3 | 48.5 | 58.6  | 66.2 | 65.8  | 55.9       | 45.3 | 31.7 | 22.2             |
| Departure (degrees)  | -3.0 | 3.9  | 1.4  | -1.7 | -1.1 | 1.0   | 0.9  | 2.7   | 0.9        | 0.4  | -0.3 | -1.4             |
| No.6 Uintah Basin  |      |      |      | •    |      |       |      |       |            |      |      |                  |
| Normal   | 17.2 | 24.1 | 35.5 | 46.2 | 56.2 | 64.9  | 72.1 | 69.3  | 60.3       | 48.5 | 33.5 | 21.2             |
| 1991   | 10.5 | 24.9 | 37.4 | 45.1 | 55.7 | 64.9  | 71.4 | 70.4  | 61.0       | 49.1 | 32.3 | 21.1             |
| Departure (degrees)  | -6.7 | 0.8  | 1.9  | -1.1 | -0.5 | 0.0   | -0.7 | 1.1   | 0.7        | 0.6  | -1.2 | -0.1             |
| No.7 Southeast   |      |      |      |      |      |       |      |       |            |      |      |                  |
| Normal   | 27.0 | 33.8 | 41.0 | 50.2 | 59.8 | 69.7  | 76.6 | 73.8  | 65.4       | 53.7 | 39.5 | 29.3             |
| 1661   | 21.8 | 34.9 | 40.5 | 48.6 | 59.1 | 69.69 | 76.5 | 75.1  | 66.3       | 55.5 | 37.8 | 27.6             |
| Departure (degrees)  | -5.2 | 1.1  | -0.5 | -1.6 | -0.7 | 0.1   | -0.1 | 1.3   | 0.9        | 1.8  | -1.7 | -1.7             |
| STATE AVERAGES   |      |      |      |      |      |       |      |       |            |      |      |                  |
| Normal   | 26.4 | 31.8 | 38.6 | 47,4 | 56.9 | 66.0  | 73.6 | 71.2  | 62.7       | 51.5 | 37.9 | 28.6             |
| 1661   | 22.3 | 34,9 | 38.8 | 46.0 | 54.9 | 65.5  | 74.1 | 72.9  | 63.3       | 52.4 | 37.0 | 27.1             |
| Donartsina (domooc)  | 11   | •    | • •  | •    | •    | 1     | •    |       | ç          | ¢    | •    |                  |

I

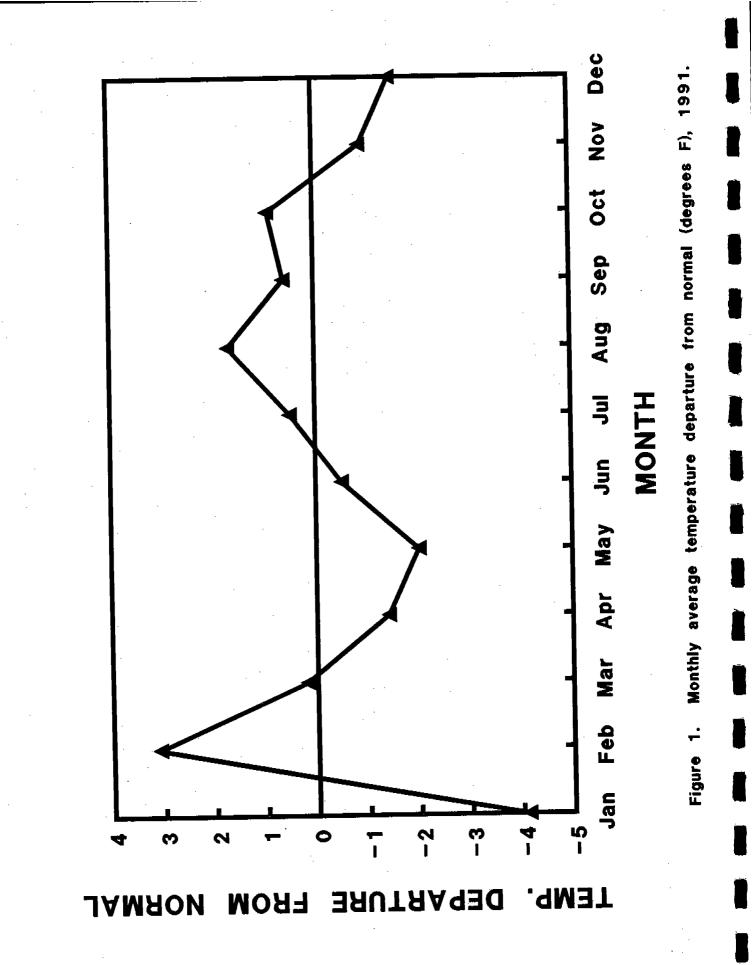
Dec 0.38 -0.16 0.85 0.96 -0.11 1.41 0.67-0.74 0.50-0.47 0.54 1.98 0.48 -1.50 0.25 -0.36 0.74 0.920.18 1.03 0.97 0.61 0.6 -0.45 AON 0.62 0.840.22 0.72 6.0 -0.27 1.34 1.20 2.31 0.970.98 0.22 1.62 0.79 0.49 -0.05 1.19 2.41 0.54 0.73 0.46 0.970.341.3 0.65 1.13 0.48 0.25 ð 2.08 0.77 0.921.26 0.34 1.45 0.78 1.03 1.31 1.97 0.52 0.870.68 -0.19 1.09 1.00 -0.09 1.01 1.3 0.30 

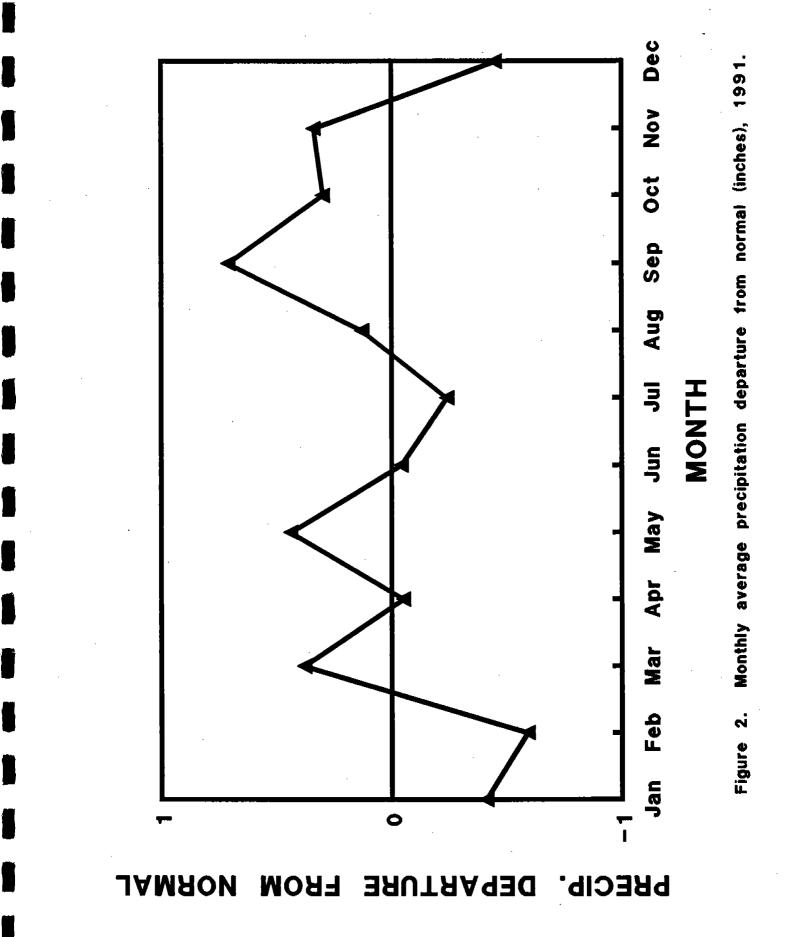
 Table 2. Comparison of 1991 monthly average precipitation to the normal for each weather division and statewide.

 Weather Division
 Jan
 Feb
 Mar
 Apr
 May
 Jun
 Jul
 Aug
 Sep
 Or

 0.38 0.55 0.93 0.76 1.65 0.89 66.0 2.18 1.19 1.42 0.421.15 2.23 1.08 1.05 0.34 1.00 0.71 0.78 1.44 0.66 0.85 1.6 0.71 0.72 0.82 0.10 0.61 -0.40 0.95 0.29 1.01 1.24 1.59 0.28 1.31 1.23 0.54 0.85 1.05 1.77 0.81 0.041.07 1.1 0.13 1.01 0.35 -0.28 0.63 0.78 0.41 -0.37 0.65 0.33 -0.32 0.56 -0.40 0.96 0.88 0.63 -0.25 0.54 0.58-0.04 0.77 0.76 0.75 -0.01 0.5 -0.24 0.67 0.76 0.0 0.360.28 -0.08 1.19 0.97 -0.22 0.54 0.36 -0.18 1.36 0.19 0.69 -0.03 0.40 0.72 -0.09 1.17 0.31 0.72-0.04 0.7 0.95 1.86 -0.39 0.91 0.66 0.27 1.6 3.05 1.45 0.941.44 0.501.54 2.53 **66**.0 0.78 -0.19 0.590.67 0.41 -0.26 1.5 0.441.01 0.10 0.09-0.73 2.48 0.91 0.821.96 0.52 1.04 0.77 -0.27 1.88 2.22 0.340.680.790.19 0.81 0.11 0.61 -0.42 1.11 -0.05 1.1 0.52 -0.22 3.03 0.74 1.42 1.61 1.6 1.55 -0.05 1.15 0.37 2.24 0.35 1.52 1.89 0.57 0.62 0.05 0.64 1.13 0.491.14 1.5 0.38-0.33 0.24 0.60-0.76 0.57 1.36 1.39 0.86 -0.53 1.06 0.41 -0.65 1.92 0.73 -1.19 -0.28 0.45 0.170.19 0.61 -0.42 1.05 0.5 -0.59 0.59 0.48-0.11 1.35 -0.54 1.56 1.08 -0.48 0.81 1.09 0.66 -0.43 2.16 1.15 -1.01 0.200.72 0.76 0.51-0.31 1.14 0.040.7 -0.41 No.5 Northern Mountains Departure (inches) STATE AVERAGES No.4 South Central No.3 North Central Departure (inches) Weather Division **Departure (inches)** Departure (inches) No.6 Uintah Basin Departure (inches) Departure (inches) Departure (inches) Departure (inches) No.1 Western No.7 Southeast Normal Normal Normal No.2 Dixie Normal Normal Normal Normal Normal 1991 1991 1991 1991 1991 1991 1991 1991

217





#### APPENDIX B

#### LICENSE SALES

Small game license sales by type and cost are listed in Table 1. The number of licenses sold for all types, except resident combination decreased slightly in 1991.

The proportion of Utah's population hunting small game is declining (Table 2). In the early 1970's about 10 percent of Utah's population was hunting small game. By 2000, we project that only about 6 percent will be hunting small game.

Table 3 identifies revenue generated to the Utah Division of Wildlife Resources from small game license sales. Small game program budgets run about half the revenue generated, with the other half going to support services such as law enforcement, administration, accounting, and field services.

|               | Adult  |       | Juv.   | Res. | Nor    | n Res. |                          |        |
|---------------|--------|-------|--------|------|--------|--------|--------------------------|--------|
|               | Small  | Game  | Small  | Game | Smal   | I Game | Combination              | Licens |
| Year          | Issued | Cost  | Issued | Cost | Issued | Cost   | Issued                   | Cost   |
| 1954          | 12,990 | 3.50  | 5,170  | 2.00 | 561    | 15.00  | 79,574                   | 6.00   |
| 1955          | 12,086 | 3.50  | 5,369  | 2.00 | 478    | 15.00  | 79,960                   | 6.00   |
| 1956          | 12,102 | 3.50  | 5,735  | 2.00 | 524    | 15.00  | 80,968                   | 6.00   |
| 1957          | 12,239 | 3.50  | 6,192  | 2.00 | 505    | 15.00  | 81,271                   | 6.00   |
| 1958          | 14,290 | 3.50  | 6,563  | 2.00 | 696    | 15.00  | 85,198                   | 6.00   |
| 1959          | 13,421 | 3.50  | 5,966  | 2.00 | 669    | 15.00  | 90,069                   | 6.00   |
| 1960          | 12,020 | 3.50  | 5,022  | 2.00 | 576    | 15.00  | 90,085                   | 6.00   |
| 1961          | 12,177 | 3.50  | 6,108  | 2.00 | 617    | 15.00  | 88,180                   | 6.00   |
| 1962          | 12,953 | 3.50  | 6,536  | 2.00 | 607    | 15.00  | 91,412                   | 6.00   |
| 1963          | 13,365 | 3.50  | 6,319  | 2.00 | 642    | 15.00  | 94,768                   | 6.00   |
| 1964          | 13,073 | 3.50  | 6,453  | 2.00 | 681    | 15.00  | 98,556                   | 6.00   |
| 1965          | 12,913 | 3.50  | 6,755  | 2.00 | 716    | 15.00  | 100,410                  | 6.00   |
| 1966          | 13,854 | 3.50  | 7,477  | 2.00 | 725    | 15.00  | 103,849                  | 6.00   |
| <b>1967</b>   | 18,588 | 4.50  | 12,851 | 2.50 | 652    | 20.00  | 86,218                   | 10.00  |
| 1968          | 20,647 | 4.50  | 15,205 | 2.50 | 703    | 20.00  | 91,020                   | 10.00  |
| 1969          | 20,221 | 4.50  | 15,567 | 2.50 | 853    | 20.00  | 96,117                   | 10.00  |
| 1970          | 19,564 | 4.50  | 15,827 | 2.50 | 1,009  | 20.00  | 100,467                  | 10.00  |
| 1971          | 20,681 | 4.50  | 16,044 | 2.50 | 1,000  | 20.00  | 102,284                  | 10.00  |
| 1972          | 19,796 | 4.50  | 16,523 | 2.50 | 1,075  | 20.00  | 107,414                  | 10.00  |
| 1973          | 18,836 | 4.50  | 16,522 | 2.50 | 964    | 20.00  | 155,436                  | 10.00  |
| 1974          | 17,434 | 4.50  | 16,334 | 2.50 | 974    | 20.00  | 117,770                  | 10.00  |
| 1975          | 17,057 | 4.50  | 15,869 | 2.50 | 967    | 20.00  | 115,362                  | 10.00  |
| 1 <b>9</b> 76 | 33,078 | 6.00  | 16,261 | 3.00 | 1,141  | 20.00  | 76,587                   | 18.00  |
| 1 <b>9</b> 77 | 36,473 | 6.00  | 15,795 | 3.00 | 1,270  | 20.00  | 74,600                   | 18.00  |
| 1978          | 37,082 | 6.00  | 15,419 | 3.00 | 1,449  | 20.00  | 81,227                   | 18.00  |
| 1979          | 36,721 | 6.00  | 14,200 | 3.00 | 1,575  | 20.00  | 84,450                   | 18.00  |
| <b>1980</b>   | 30,189 | 8.00  | 14,042 | 4.00 | 1,330  | 30.00  | 100,177                  | 23.00  |
| 1981          | 37,804 | 8.00  | 13,874 | 4.00 | 1,559  | 30.00  | 83,486                   | 23.00  |
| 1982          | 36,850 | 8.00  | 14,040 | 4.00 | 1,637  | 30.00  | 82,970                   | 23.00  |
| 1983          | 39,602 | 8.00  | 13,814 | 4.00 | 1,685  | 30.00  | 73,529                   | 23.00  |
| 1984          | 36,070 | 8.00  | 13,170 | 4.00 | 1,633  | 30.00  | 73,081                   | 23.00  |
| 1985          | 30,102 | 12.00 | 12,987 | 6.00 | 1,500  | 40.00  | 82,137                   | 35.00  |
| 1986          | 29,202 | 12.00 | 11,921 | 6.00 | 1,274  | 40.00  | 67,187                   | 35.00  |
| 1987          | 26,781 | 12.00 | 11,228 | 6.00 | 1,235  | 40.00  | 66,715                   | 35.00  |
| 1988          | 25,733 | 12.00 | 9,498  | 6.00 | 1,428  | 40.00  | 72,846                   | 35.00  |
| 1989          | 25,845 | 12.00 | 5,769  | 6.00 | 1,422  | 40.00  | 74,274                   | 35.00  |
| 1990          | 24,527 | 12.00 | 5,682  | 6.00 | 1,279  | 40.00  | 76,292                   | 35.00  |
| 1991          | 23,276 | 12.00 | 5,626  | 6.00 | 1,212  | 40.00  | 70,2 <i>92</i><br>79,165 | 35.00  |

.

# Table 1. Statewide small game license sales information, 1954-91.

| tu             | rkey, chukar a    | nd Hungarian partridge on  | public lands.      | ,<br> |
|----------------|-------------------|----------------------------|--------------------|-------|
| <u>.</u>       | Utah              | <b>Resident Small Game</b> | Proportion         |       |
| Year           | <b>Population</b> | Licenses Sold 1            | Hunting Small Game |       |
| 1971           | 1,101,000         | 101,421                    | 9.2                |       |
| 1972           | 1,135,000         | 110,691                    | 9.8                |       |
| 1973           | 1,169,000         | 115,129                    | 9.8                | ١     |
| 1974           | 1,197,000         | 112,963                    | 9.4                |       |
| 1975           | 1,234,000         | 108,636                    | 8.8                |       |
| 1976           | 1,272,000         | 85,268                     | 6.7                |       |
| <b>1977</b>    | 1,316,000         | 86,549                     | 6.6                |       |
| 1978           | 1,364,000         | 95,637                     | 7.0                |       |
| 1979           | 1,416,000         | 100,116                    | 7.1                |       |
| 1980           | 1,461,037         | 110,039                    | 7.5                |       |
| 1981           | 1,524,830         | 103,041                    | 6.8                |       |
| 1982           | 1,588,622         | 99,744                     | 6.3                |       |
| 1983           | 1,652,415         | 93,303                     | 5.6                |       |
| 1984           | 1,716,207         | 88,084                     | 5.1                |       |
| 1985           | 1,780,000         | 94,991                     | 5.3                |       |
| 1986a          | 1,665,000         | 82,777                     | 5.0                |       |
| 1987a          | 1,678,000         | 85,099                     | 5.1                |       |
| 1988           | 1,695,000         | 92,677                     | 5.5                |       |
| <b>1989</b> a  | 1,715,000         | 92,031                     | 5.4                |       |
| 1 <b>990</b> a | 1,722,850         | 90,532                     | 5.3                |       |
| 1 <b>991</b> a | 1,774,241         | 89,297                     | 5.0                | · . · |
| 1 <b>995</b> a | 1,879,301         | 105,000                    | 5.6                |       |
| 2000a          | 1,992,048         | 115,000                    | 5.8                |       |

Table 2. Actual (1971-1991) and projected (1995 and 2000) proportion of Utah population hunting small game based upon assumption of improved sportsman access to private lands and successful transplants of

1 Adjusted for waterfowl hunters subtracted from combination licenses,

R.S.G. = Adjusted combination plus juvenile small game plus adult small game.

a Utah Population Estimate Committee Report for July 1 (Office of State Planning Coordinator) Table 3. Small game license sales and income, 1971-91 (JSG=juvenile smalt game, RSG=adult resident small game,

CMB= combination license, NRSG = nonresident small game).

|           |             |              |              |   |        |             |                         |             | No. Federal  |           |             | 8   |           | 2             |
|-----------|-------------|--------------|--------------|---|--------|-------------|-------------------------|-------------|--|-----------|-------------|---|-----------|---------------|
|           |             | License Fees | Frees        |   |        | Number of 1 | Number of Licences Sold |             | Duck Stamps  | Total Gro | ss Revenues | <b>Fotal Gross Revenues Attributed to Small Game (\$)</b> | Small Gam | e (S)         |
| Year      | JSC         | RSG          | CMB          | NRSG  | JSG4   | RSG         | CMB                     | NRSG        | Sold3  | JSG4      | RSG         | CMB2  | NRSG      | <b>TOTAL1</b> |
| 1971      | 2.50        | 4.50         | 10.00        | 20.00   | 16,044 | 20,681      | 102,284                 | 1,000       | 37,588   | 20,055    | 93,064      | 200,557   | 20,000    | 313,676       |
| 1972      | 2.50        | 4.50         | 10.00        | 20.00   | 16,523 | 19,796      | 107,414                 | 4,075       | 33,042   | 20,653    | 89,082      | 230,553   | 21,500    | 340,288       |
| 1973      | 2.50        | 4.50         | 10.00        | 20.00   | 16,522 | 18,836      | 115,436                 | 964         | 35,665   | 20,652    | 84;762      | 247,290   | 19,280    | 352,704       |
| 1974      | 2.50        | 4.50         | 10.00        | 20.00   | 16,334 | 17,434      | 117,770                 | 974         | 38,575   | 20,417    | 78,453      | 245,504   | 19,480    | 344,374       |
| 197S      | 2.50        | 4.50         | 10.00        | 20.00   | 15,869 | 17,057      | 115,362                 | 967         | 39,652   | 19,836    | 76,756      | 234,701   | 19,340    | 330,993       |
| 1976      | 3.00        | 6.00         | 18.00        | 20.00   | 16,261 | 33,078      | 76,587                  | 1,141       | 40,658   | 24,391    | 198,468     | 184,675   | 22,820    | 407,534       |
| 1977      | 3.00        | 6.00         | 18.00        | 20.00   | 15,795 | 36,473      | 74,600                  | 1,270       | 40,319   | 23,692    | 218,838     | 176,204   | 25,400    | 418,734       |
| 1978      | 3.00        | 6.00         | 18.00        | 20.00   | 15,419 | 37,082      | 81,227                  | 1,449       | 38,091   | 23,128    | 222,492     | 221,719   | 28,980    | 467,339       |
| 1979      | 3.00        | 6.00         | 18.00        | 20.00   | 14,200 | 36,721      | 84,450                  | 1,575       | 35,255   | 21,300    | 220,326     | 252,862   | 31,500    | 494,488       |
| 1980      | 4.00        | 8.00         | 23.00        | 30.00   | 14,042 | 30,189      | 100,177                 | 1,330       | 34,369   | 28,084    | 241,512     | 425,120   | 39,900    | 694,716       |
| 1861      | 4.00        | 8.00         | 23.00        | 30.00   | 13,874 | 37,804      | 83,486                  | 1,559       | 32,123   | 27,748    | 302,432     | 331,805   | 46,770    | 661,985       |
| 1982      | 4.00        | 8.00         | 23.00        | 30.00   | 14,040 | 36,850      | 82,970                  | 1,637       | 34,116   | 28,080    | 294,800     | 315,597   | 49,110    | 638,477       |
| 1983      | 4.00        | 8.00         | 23.00        | 30.00   | 13,814 | 39,602      | 73,529                  | 1,685       | 33,642   | 25,620    | 305,249     | 257,670   | 50,134    | 588,539       |
| 1984      | 4.00        | 8.00         | 23.00        | 30.00   | 13,170 | 36,070      | 73,081                  | 1,633       | 34,237   | 26,340    | 288,560     | 250,544   | 48,990    | 565,444       |
| 1985      | 6.00        | 12.00        | 35.00        | 40.00   | 12,987 | 30,102      | 82,137                  | 1,500       | 30,235   | 38,961    | 361,224     | 484,246   | 60,000    | 884,431       |
| 1986      | 6.00        | 12.00        | 35.00        | 40.00   | 11,946 | 39,567      | 67,435                  | 1,274       | 25,533   | 35,838    | 354,804     | 395,973   | 50,960    | 786,615       |
| 1987      | 6.00        | 12.00        | 35.00        | 40.00   | 11,228 | 26,781      | 66,715                  | 1,235       | 19,625   | 33,684    | 321,372     | 439,350   | 49,400    | 794,406.      |
| 1988      | 6.00        | 12.00        | 35.00        | 40.00   | 9,498  | 25,733      | 72,846                  | 1,428       | 15,400   | 28,494    | 308,796     | 535,971   | 57,120    | 873,261       |
| 1989      | 6.00        | 12.00        | 35.00        | 40.00   | 5,769  | 25,845      | 74,274                  | 1,422       | 13,857   | 17,307    | 310,140     | 563,691   | 56,880    | 891,138       |
| 1990      | 6.00        | 12.00        | 35.00        | 40.00   | 5,682  | 24,527      | 76,292                  | 1,279       | 15,969   | 17,046    | 294,324     | 543,986   | 51,160    | 855,356       |
| 1991      | 6.00        | 12.00        | 35.00        | 40.00   | 5,626  | 23,276      | 79,165                  | 1,212       | 18,770   | 16,878    | 279,312     | 563,485   | 48,480    | 859,675       |
| 1 Value d | loes not in | sclude cou   | gar, bear, t | 1 Value does not include cougar, bear, turkey permits and |        | ial hunting | area licenses.          | It does not | l commercial hunting area licenses. It does not include NRSG |           |             |   |           |               |

nut unture cougar, near, turkey permits and commercial hunting area licenses. It does not include NKNG Revenue-this is assumed to be primarily non-resident bear and cougar hunters.

from combination liceuse sales when projecting revenue generated. The proportion of the combination license fee attributed They may fish and hunt big game but they do not hunt any other small game. Therefore, duck stamp sales are subtracted 2 Combination license values are based on the assumption that all waterfowl lumters purchased only combination licenses. to small game equals the resident small game license fee divided by the resident fishing license fee plus the resident big game license fee plus the resident small game license fee or \$9.33 for 1991.

3 Total Federal duck stamps sold does not include those sold during the second quarter, April-June, because persons purchasing stamps during this quarter tend not to be hunters. 4 Haff of the juvenile small game license sales were attributed to waterfowl hunters. Federal duck stamps are not required of juveniles less than 16 years of age. APPENDIX C: Regional and statewide summary of effort expended on upland game summer surveys.

Generally hours spent and miles driven on upland game surveys in Utah have declined since 1971. This is the result of competing uses of time for biologists and conservation officers. In addition, the restriction to a 40 hour work week by the Fair Standards and Labor Act has further eroded survey effort. When effort and results have reached a lower critical sample size, surveys have been eliminated.

| onal and statewide summary |
|----------------------------|
| Table 1. Regional ar       |

I

| I            | Northern |       | Central     |       | Southern  |            | Northeastern |             | Southeastern |            | STATE TOTALS | VIS   |
|--------------|----------|-------|-------------|-------|-----------|------------|--------------|-------------|--------------|------------|--------------|-------|
| Species      | Miles    | Hours | Miles       | Hours | Miles     | Hours      | Miles        | Hours       | Miles        | Hours      | Miles        | Hours |
| Pheasant     |          |       |             |       |           |            |              |             |              |            |              |       |
| 1791         | 507      | :     | 878         | ł     | 796       | :          | 588          | ł           | 346          | :          | 3,115        | 1     |
| 1972         | 469      | :     | <b>6</b> 96 | ı     | 752       | 1          | 535          | ł           | 797          | ŀ          | 3,016        | 1     |
| ET 91        | 322      | ł     | 169         | 1     | 740       | 1          | 488          | 1           | 230          | ;          | 2,471        | 1     |
| 1974         | 479      | 1     | 819         | :     | 848       | ;          | 508          | ł           | 317          | ;          | 2,971        | 1     |
| 1975         | 490      | 1     | 846         | :     | 566       | I          | 515          | 1           | 393          | :          | 3,237        | I     |
| 1976         | 476      | 1     | 822         | ı     | 577       | 1          | 434          | :           | 400          | ı          | 2,905        | I     |
| 1771         | 484      | :     | 131         | ł     | 790       | :          | 554          | 1           | 343          | :          | 2,902        | 1     |
| 1978         | 479      | :     | 642         | I     | 654       | :          | 512          | :           | 588          | ł          | 2,875        | :     |
| 6261         | 438      | ł     | 642         | ;     | 721       | 1          | 562          | 1           | 209          | ;          | 2,572        | I     |
| 1980         | 358      | 1     | 672         | ı     | 750       | 1          | 546          | 1           | 270          | ı          | 2,596        | 1     |
| 1981         | 459      | ł     | 525         | ;     | 108       | ;          | 535          | :           | 330          | 1          | 2,650        | ı     |
| 1982         | 437      | :     | 639         | 1     | 583       | ı          | 477          | 1           | 332          | :          | 2,468        | ı     |
| 1983         | 260      | ;     | 442         | ;     | 780       | ł          | 426          | 1           | 330          | 1          | 2,238        | ı     |
| 1984         | 444      | :     | 359         | ;     | 473       | ı          | 463          | t           | 166          | :          | 1,905        | I     |
| 1985         | 383      | 1     | 303         | ;     | 650       | ı          | 492          | ı           | 180          | :          | 2,008        | 1     |
| 1986         | 455      | ;     | 617         | 1     | 699       | 1          | 520          | :           | 270          | :          | 163,5        | 1     |
| 1987         | 432      | 1     | 518         | ;     | 574       | 1          | 546          | :           | \$           | :          | 2,160        | I     |
| 1988         | 334      | 1     | 436         | 1     | 604       | ı          | 469          | 1           | 8            | ;          | 1,933        | I     |
| 1989         | 499      | :     | 427         | ı     | <b>45</b> | I          | 403          | 1           | 8            | 1          | 1,464        | 1     |
| 1990         | 518      | :     | 509         | ı     | 2         | I          | 240          | :           | 8            | :          | 1,454        | t     |
| 1991         | 485      | :     | 496         | ;     | 120       | ı          | 375          | ı           | 8            | 1          | 1,566        | 1     |
|              |          |       |             |       |           |            |              |             |              |            |              |       |
| Chukar       |          |       |             |       |           |            |              |             |              |            |              |       |
| 1971         | 182      | 82    | 929         | 130   | 1,103     | 100        | 636          | <b>\$</b> 7 | 496          | 105        | 3,346        | 467   |
| 1972         | 712      | 16    | 1,423       | 131   | 950       | 37         | 1,012        | 69          | 984          | <b>8</b> 8 | 5,081        | 386   |
| 1973         | 1,063    | 119   | 1,494       | 167   | Ę         | 9          | 705          | 48          | 702          | 89         | 4,036        | 412   |
| 1974         | 125      | 31    | 1,591       | 107   | 564       | <b>6</b> 4 | 440          | Ŕ           | 1,115        | 67         | 3,835        | 278   |
| 1975         | 188      | ÐC    | 808         | 58    | 892       | 41         | 908          | 88          | 786          | 55         | 3,582        | 299   |
| 9461         | 875      | 75    | <u>364</u>  | 110   | 465       | 32         | 727          | 67          | 687          | 3          | 3,718        | 350   |
| 1977         | 405      | 50    | 1,198       | 120   | 109       | 37         | 600          | 71          | 429          | 4          | 3,233        | 322   |
| 1978         | 359      | 28    | 459         | 4     | 135       | 14         | 315          | 53          | 536          | 23         | 1,804        | 159   |
| 1979         | 546      | 54    | 793         | 76    | 415       | 22         | 293          | 23          | 267          | 14         | 2,314        | 189   |
| 1980         | 283      | 68    | 1,668       | 124   | 235       | 12         | •            | 0           | 23           | 10         | 2,239        | 214   |
| 1981         | 330      | 26    | 165         | 49    | 147       | 11         | 245          | 21          | 260          | 32         | 2            | 169   |
| 1982         | 473      | 34    | 571         | 35    | 475       | 35         | 260          | 37          | 101          | 6          | 1,880        | 171   |
| <b>58</b> 61 | 17       | 15    | <u>8</u>    | 17    | 20        | 7          | 488          | 4           | 103          | -          | 818          | 8     |
| 1984         | 654      | 81    | 303         | 32    | 1         | 1          | ;            | :           | 118          | 16         | 1,075        | 129   |
| 1985         | 236      | 73    | 453         | 35    | I         | I          | :            | :           | 174          | 12         | 863          | 121   |
| 1986         | 394      | 65    | 432         | 37    | t         | I          | 135          | 4           | 1            | :          | 961          | 116   |
| 1987         | 813      | 119   | 398         | 36    | 0         |            | 305          | 32          | 175          | . 23       | 1,691        | 213   |
| 1988         | 379      | 35    | 457         | 49    | 8         | 7          | <b>;</b>     | 1           | 180          | 14         | 1,076        | 105   |
| 6861         | 105      | 17    | 505         | 8     | =         | 80         | :            | ł           | 144          | 12         | 765          | 67    |
| 0661         | ı        | 21    | 1,190       | F     | ł         | 1          | 85           | <b>90</b>   | 235          | 20         | 1,510        | 126   |
| 1661         | •        | •     | 311         | 18    | •         | 0          | 0            | ¢           | 225          | =          | 536          | 50    |
|              |          |       |             |       |           |            |              |             |              |            |              |       |

Table 1 (continued)

| Table 1 (continued) | ntinued)   |             |            |              |          | REGION     |              |          |              |              |              |             |
|---------------------|------------|-------------|------------|--------------|----------|------------|--------------|----------|--------------|--------------|--------------|-------------|
| •                   | Northern   |             | Central    |              | Southern |            | Northeastern |          | Southeastern |              | STATE TOTALS | ALS         |
| Species _           | Miles      | Hours       | Miles      | Hours        | Miles    | Hours      | Miles        | Hours    | Miles        | Hours        | Miles        | Rours       |
| Sage Grouse         | 8          |             |            |              |          |            |              |          |              |              |              |             |
| 1791                | 1,743      | 296         | <b>606</b> | 145          | 1,423    | 98         | 1,465        | <u>4</u> | 1,089        | 128          | 6,629        | 811         |
| 1972                | 1,628      | 323         | 1,187      | 143          | 751      | 14         | 2,125        | 170      | 1,280        | 141          | 6,971        | 921         |
| 1973                | 3,146      | 353         | 927        | 147          | 1,171    | 116        | 1,952        | 238      | 496          | 41           | 7,692        | 568 ·       |
| 1974                | 2,026      | 321         | 1,551      | 115          | 1,881    | 193        | 2,964        | 248      | 887          | 124          | 9,309        | 1,001       |
| 1975                | 1,254      | 249         | 5963       | 123          | 714      | 226        | 1,868        | 236      | 1,098        | 131          | 5,897        | 965         |
| 1976                | 1,965      | 281         | 426        | 121          | 379      | 183        | 1,881        | 227      | 1,222        | 161          | 5,873        | 616         |
| 1977                | 1,966      | 305         | 1,370      | EE1          | 465      | 157        | 1,995        | 215      | 928          | 116          | 6,724        | 926         |
| 1978                | 1,408      | 267         | 541        | 124          | 490      | 152        | 1,616        | 226      | 619          | 5            | 4,934        | <b>3</b> 2  |
| 1979                | 1,051      | 150         | 700        | 132          | 563      | 143        | 1,719        | 203      | 279          | 20           | 4,312        | 648         |
| 1980                | 1,003      | 218         | 806        | 150          | 518      | 94         | 1,471        | 181      | 278          | 5            | 4.076        | 706         |
| 1981                | 619        | 194         | 169        | 8            | 285      | ST         | 111          | 163      | 377          | 39           | 2,743        | 552         |
| 1982                | 1,669      | 169         | 762        | 6            | 454      | 8          | 862          | 116      | ł            | 1            | 3,747        | 460         |
| 1983                | 610        | 158         | 720        | 2            | 284      | 51         | 202          | 125      | 108          | 10           | 2,714        | 805         |
| 1984                | 1,411      | 278         | 283        | 28           | 289      | 2          | 530          | ĸ        | 151          | 11           | 2,664        | 526         |
| 1985                | 2,164      | 169         | 481        | 74           | 410      | <b>4</b> 5 | 666          | 2        | 106          | •            | 3,827        | 381         |
| 1986                | 1,024      | 197         | 281        | 66           | 169      | 43         | 948          | ş        | 146          | 14           | 2,568        | 387         |
| 1987                | 1,939      | 205         | 172        | 37           | 286      | 20         | 1,114        | 124      | 195          | 18           | 3,706        | 434         |
| 1988                | 2,092      | 177         | 678        | 108          | 315      | 2          | 669          | 16       | 1            | :            | 3,775        | 442         |
| 1989                | 465        | 108         | 360        | 56           | 4        | 61         | 557          | 19       | 167          | 24           | 1,595        | 268         |
| 1990                | 175        | 73          | 44         | - 86         | 8        | 42         | 244          | 30       | 70           | ~            | 1,023        | 241         |
| 1661                | 554        | 210         | 270        | 21           | 30       | 21         | 99           | 21       | <b>9</b> 8   | 13           | 1,000        | 287         |
|                     |            |             | •          |              |          |            |              |          | ·            |              |              |             |
| Forest Grou         | <b>ā</b> - |             |            |              |          |            |              |          |              |              |              |             |
| 1971                | 1,201      | 240         | 785        | 173          | 796      | 249        | 794          | 11       | 440          | 8            | 4,016        | 828         |
| 1972                | 1,370      | 212         | 804        | 103          | 214      | 260        | 1,346        | 140      | 351          | 82           | 4,085        | L61         |
| 1973                | 627        | 127         | 917        | 105          | 296      | 429        | 949          | 147      | 761          | 72           | 3,550        | <b>9</b> 88 |
| 1974                | 967        | 152         | 924        | 1 <b>5</b> 7 | 157      | 461        | 1,090        | 8        | 1,574        | [33          | 4,712        | 1,002       |
| 1975                | 1,194      | <u>1</u> 98 | 1,287      | 160          | 775      | 629        | 1,474        | 136      | 1,476        | 135          | 6,206        | 1,259       |
| 1976                | 1,516      | 351         | 1,503      | 216          | 427      | 271        | 1,108        | 140      | 1,127        | 134          | 5,681        | 1,112       |
| 1977                | 7.37       | 132         | 1,317      | 162          | 610      | 286        | 1,040        | 135      | 1,079        | 128          | 4,783        | 843         |
| 1978                | 1,300      | 297         | 1,171      | 129          | 432      | 219        | 1,083        | 147      | 626          | 114          | 4,612        | 906         |
| 6261                | 746        | 344         | 1,312      | 177          | 714      | 275        | 729          | 107      | 435          | 42           | 3,936        | 945         |
| 086T                | 577        | 201         | 1,260      | 158          | 160      | 230        | 502          | 74       | 266          | 30           | 2,765        | 702         |
| 1981                | 688        | 147         | 958        | 147          | 575      | 295        | 835          | 120      | 184          | 29           | 3,240        | 738         |
| 1982                | 506        | 74          | 1,488      | 151          | I.       | 354        | 742          | 111      | 1            | ł            | 2,736        | 696         |
| <b>1983</b>         | 1,049      | 218         | 1,180      | 53           | 459      | 80         | 636          | ĸ        | ;            | 20           | 3,324        | 504         |
| 1984                | 615        | 157         | 364        | 30           | 230      | 78         | 1            | 1        | I            | <del>4</del> | 1,209        | 305         |
| 1985                | 828        | 202         | 436        | 52           | 564      | 8          |              | :        | ł            | 4            | 1,858        | 384         |
| 1986                | 266        | 127         | 380        | 41           | 254      | 51         | 412          | 61       | ł            | 1            | 2,043        | 280         |
| 1987                | 1,148      | 147         | 305        | 11           | 200      | . 29       | 438          | 58       | :            | ;            | 2,091        | 347         |
| 1988                | 1,118      | <u>4</u>    | 55         | Q            | 160      | 53         | 558          | 11       | ł            | 1            | 1,891        | 274         |
| 1989                | 795        | 109         | 635        | 69           | 45       | <b>6</b> 0 | 573          | 75       | 286          | 33           | 2,334        | 289         |
| 0661                | 171        | 150         | 102        | 113          | 30       | 6          | 185          | 91       |              |              | 1,087        | 357         |
| 1661                | 1          | 178         | 536        | 54           | 30       | 64         | 0            | Ð        | :            | 2            | 566          | 236         |

| - 1 |
|-----|
|     |

| Northern         Northern           Miles         Ijours           88         24           88         24           88         24           88         24           88         192           24         24           88         11           88         11           68         11           67         9           67         9           1,135         126           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,145         156           1,148         156           1,148         156  |                  |     |            |       |         | REGION |              |            |            |       |           |            |
|--|------------------|-----|------------|-------|---------|--------|--------------|------------|------------|-------|-----------|------------|
|  | Ì                | ĒTā | Central    |       | Souther | F      | Northeast er | F          | Southeast  | era   | STATE TOT | ALS        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |                  |     |            | Hours | Miles   | Hours  | Miles        |            | Miles      | Hours | Miles     | Honr       |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | Quail            |     |            |       |         |        |              |            |            | 1     |           |            |
|  | -                | 24  | 289        | 40    | 344     | 28     | 587          | 49         | 140        | 13    | 1,552     | 154        |
| 0       264       25       23       24       23       24 <td< td=""><td></td><td>6</td><td>342</td><td>30</td><td>575</td><td>66</td><td>870</td><td>89</td><td>120</td><td>œ</td><td>1,953</td><td>149</td></td<>  |                  | 6   | 342        | 30    | 575     | 66     | 870          | 89         | 120        | œ     | 1,953     | 149        |
| 4         4         27         83         6         227         23         23         23         24         23         24 <td></td> <td>10</td> <td>264</td> <td>35</td> <td>32</td> <td>æ</td> <td>538</td> <td>38</td> <td>25</td> <td>17</td> <td>626</td> <td>108</td> |                  | 10  | 264        | 35    | 32      | æ      | 538          | 38         | 25         | 17    | 626       | 108        |
| 8       10       23       84       6       34       34 </td <td></td> <td>4</td> <td>43</td> <td>27</td> <td>853</td> <td>38</td> <td>227</td> <td>28</td> <td>214</td> <td>21</td> <td>1,361</td> <td>146</td>  |                  | 4   | 43         | 27    | 853     | 38     | 227          | 28         | 214        | 21    | 1,361     | 146        |
|  |                  | 90  | 107        | 23    | 841     | 2      | 594          | 43         | 230        | 12    | 1.799     | 150        |
| 4       331       39       44       3       31       3       31       3       31       3       31       3       31       3       31       3       31       3       31       3       31       3       31       3  |                  | 10  | 206        | 29    | 503     | 62     | 597          | 4          | 75         | 10    | 1.462     | 155        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |                  | 4   | 351        | 66    | 44S     | 42     | 341          | 26         | 6          | 16    | 1.219     | 127        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |                  | ł   | 239        | 18    | 563     | 61     | 541          | <b>8</b>   | <b>3</b> 8 | 1     | 1.431     | 142        |
| 9       265       240       36       410       36       410       36       31       9       <  | -                | н   | s          | ۲     | 478     | 41     | 346          | 32         | 15         |       | 1 002     | 5          |
| 11       18       1       33       4       36       4       36       4       36       4       36       4       36       4       36       4       36       4       36       4       36       4       36       4       36       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4       4       36       4   |                  | 6   | 265        | 23    | 240     | 36     | 410          | æ          | •          |       | 156       |            |
| 0       151       14       364       45 <t< td=""><td></td><td>11</td><td>981</td><td>12</td><td>329-</td><td>43</td><td>366</td><td>31</td><td>•</td><td>en)</td><td>646</td><td>9</td></t<>   |                  | 11  | 981        | 12    | 329-    | 43     | 366          | 31         | •          | en)   | 646       | 9          |
| 9       9       56       6       29       56       6       29       56       6       29       56       6       29       56       6       29       5 <td< td=""><td></td><td>0</td><td>151</td><td>14</td><td>304</td><td>4</td><td>475</td><td>44</td><td>¢</td><td></td><td>UEG</td><td>8</td></td<>  |                  | 0   | 151        | 14    | 304     | 4      | 475          | 44         | ¢          |       | UEG       | 8          |
|  | (983 S           | 0   | 53         | ٠     | 562     | 61     | 295          | 26         | ¢          |       | 955       | 105        |
| 1        | - 184            | :   | 82         | 80    | 266     | 40     | ;            | 1          | :          |       | 87        | 87         |
| 1       1       20       2  |                  | 7   | 82         | ŝ     | 252     | 33     | ł            | 1          | :          | ł     | FLL       | 4          |
|  | 986              | 1   | 10         | . 64  | 306     | 28     | 1            | 1          |            |       | 716       | •          |
|  | -                | -   | 20         | 7     | 257     | 20     | 1            | ł          |            | ł     |           | 5 5        |
|  | _                | 40  | ł          | 1     | 277     | . 5    | æ            | - 2        | 1          | 1     | 114       |            |
|  | 686              | ;   | ;          | 1     | 145     | ; 2    | ; F          | •          |            | 1     |           | f :        |
| 0       1       1       0       1       1       0       1       1       0       1  | 066              | ı   | , <b>1</b> | 1     | 56      | 80     | ! 1          |            | :          | 1     | 5         | ; =        |
|  | 0 165            | 0   |            | T     |         |        | 04           | <b>,</b> 4 | : =        |       | 5         | : •        |
| 85       104       13       1       4       1       4       1       5       1       13       1       1       5       1       1       5       1       1       5       1       1       5       1       1       5       1       1       5       1       1       5       1       1       5       1       1       5       1       1       5       1       1       5       1 <td></td> <td></td> <td></td> <td>ı</td> <td>•</td> <td>,</td> <td><b>)</b></td> <td>r</td> <td>•</td> <td>•</td> <td>Kc</td> <td>n</td>  |                  |     |            | ı     | •       | ,      | <b>)</b>     | r          | •          | •     | Kc        | n          |
|  | garian Partridge |     |            |       |         |        |              |            |            |       |           |            |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | _                | 88  | 2          | 18    | 1       | 1      | 1            | ı          | ı          | I     | 780       | 103        |
|  | -                | 126 | ł          | 1     | 1       | 1      | 1            | ,          | 1          | 1     | 21        | 126        |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |                  | 156 | 12         | 4     | 1       | ı      | ;            | 1          | 1          | 1     | 1,655     | <b>160</b> |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |                  | 176 | 14         | 7     | 1       | 1      | 1            | ı          | 1          | I     | 1,049     | 178        |
| 940         83         113         21         1         21         1         21            |                  | 2   | •          | •     | ı       | I.     | 1            | I          | I          |       | 344       | 3          |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$   |                  | 2   | 113        | 21    | t       | 1      | ;            | 1          | ı          | 1     | 1,053     | 104        |
| 1,065       90       197       17       1         440       27       33       3       3       3         250       55       56       6       1       1       1         270       23       56       6       1       1       1       1         270       23       56       3       1       1       1       1       1         324       39       1   |                  | 156 | 125        | ¥N    | ı       | :      | I            | ;          | 1          | ł     | 1,270     | 161        |
| 440       27       33       3       3       3       3       44       44       55       55       56       55       56       57       33         |                  | 8   | 197        | 17    | ŀ       | 1      | 1            | :          | 1          | ł     | 1,262     | 101        |
| 250       55       56       6       1         270       23       65       3       1       1         374       39       65       3       1       1         374       39       65       3       1       1       335         374       39       65       1       1       1       1       335         374       39       6       1       1       1       1       1       335         374       39       6       1 <td< td=""><td></td><td>27</td><td>37</td><td>6</td><td>:</td><td>1</td><td>:</td><td>I</td><td>ł</td><td>1</td><td>477</td><td>9</td></td<>   |                  | 27  | 37         | 6     | :       | 1      | :            | I          | ł          | 1     | 477       | 9          |
| 270       23       65       3       1       335         324       39       1       1       1       1       335         324       39       1       1       1       1       335         316       90       40       1       1       1       114         316       30       40       1       1       1       114         316       30       40       1       1       1       114         303       44       1       1       1       1       1       1         316       30       40       1       1       1       1       1       1       1       30         393       30       1       1       1       1       1       1       1       1       30       30       30       1       1       1       1       30       30       30       1       1       1       1       1       30       30       1   |                  | 55  | 8          | ÷     | 1       | 1      | :            | I          | ł          | ł     | 300       | 61         |
| 324       39       1       1       1       1       324         0       60       1       1       1       1       1       324         815       221       1       1       1       1       1       1       335         114       38       1       1       1       1       1       1       1       335         390       40       1       1       1       1       1       1       336         316       30       10       1       1       1       1       1       1       1       1       336         393       30       10       1       1       1       1       1       1       1       336         393       30       10       1       1       1       1       1       1       1       1       1       1       1       1       336         393       30       10       10       1       <   |                  | 33  | 65         | e     | ı       | ı      | ł            | :          | I          | I     | 335       | 26         |
| 0       60       1       1       0       60       1       1       0         815       221          |                  | 99  | 1          | 1     | 1       | 1      | 1            | 1          | ;          | 1     | 324       | 66         |
| 815     221     1     1     815       114     38     1     1     1       213     44     1     1     1       213     44     1     1     1       300     40     1     1     1       316     30     10     1     1     1       393     30     1     1     1     1       393     30     1     1     1     1  |                  | 8   | 1          | ł     | ;       | 1      | 1            | 1          | ļ          | I     | . 0       | 8          |
| 114       38           114         213       44           213         390       40           213         316       30       10       1         213         393       30           213         393       30           213   |                  | 221 | :          | ł     | 1       | ı      | ł            | 1          | •          | :     | 815       | 221        |
| 213     44        213       300     40        213       316     30     10     1       213       303     30         213       303     30         213  |                  | 38  | ;          | :     | ł       | ı      | :            | ;          | 1          | t     | 114       | 38         |
| 300     40        300       316     30     10     1       326       0     0     0        326       303     30         333  |                  | 4   | ı          | 1     | ı       | ł      | ŀ            | I          | 1          | ł     | 213       | 4          |
| 316     30     10     1     -     -     -     326       0     0     -     -     -     -     -     326       303     30     -     -     -     -     -     333   |                  | 40  | ;          | ;     | 1       | ł      | ł            | :          | :          | ;     | 300       | 4          |
| 0 0 1 0<br>393 30 393  |                  | R   | 10         |       | ,       | ;      | :            | ı          | 1          | :     | 326       | 31         |
| 393 30 393   |                  | •   | ł          |       | 1       | ;      | ł            | ı          | :          | :     | •         | •          |
|  |                  | 90  | ;          | ;     | I       |        |              |            |            |       |           |            |

| (continued) |  |
|-------------|--|
| Ţ           |  |
| ahte        |  |

|  |              |             |       |         |          |          | REGION |             |        |             |                |            |               |
|--|--------------|-------------|-------|---------|----------|----------|--------|-------------|--------|-------------|----------------|------------|---------------|
| Mile         Hour         Mile         Hour         Mile         Hour         Mile         Hour         Mile         Hour         Mile         Mile         Hour         Mile         Mile <thmile< th="">         Mile         Mile         <thm< th=""><th>ļ</th><th>Norther</th><th></th><th>Central</th><th></th><th>Southern</th><th></th><th>Northeaster</th><th>Ę.</th><th>Southeaster</th><th>E</th><th>STATE TOT!</th><th>VLS</th></thm<></thmile<>   | ļ            | Norther     |       | Central |          | Southern |        | Northeaster | Ę.     | Southeaster | E              | STATE TOT! | VLS           |
| May         May <th></th> <th>Miles</th> <th></th> <th>Miles</th> <th></th> <th>Miles</th> <th></th> <th>Miles</th> <th></th> <th>Miles</th> <th></th> <th>Miles</th> <th>Hours</th>   |              | Miles       |       | Miles   |          | Miles    |        | Miles       |        | Miles       |                | Miles      | Hours         |
| No.         No. <th>Vild Turke</th> <th></th> <th>TAVUE</th> <th></th>   | Vild Turke   |             | TAVUE |         |          |          |        |             |        |             |                |            |               |
| 1         2  | 1971         |             | 1     | ;       | t        | 726      | 73     | 1           | 1      | 215         | 28             | 941        | 101           |
| 1         1         1         1         1         1         1           1         1         1         1         1         1         1         1         1           1         1         1         1         1         1         1         1         1         1         1         1           1  | 1972         | I           | ł     | I       | 1        | 73       | 62     | ł           | ı      | 290         | 54             | 363        | 116           |
| 1         1         0         0         0         0         0         0         1         790         64         790           1 <td>1973</td> <td>1</td> <td>ł</td> <td>1</td> <td>;</td> <td>143</td> <td>11</td> <td>ł</td> <td>ı</td> <td>1</td> <td>1</td> <td>143</td> <td>11</td>   | 1973         | 1           | ł     | 1       | ;        | 143      | 11     | ł           | ı      | 1           | 1              | 143        | 11            |
| 1         213         18         -         793         100         100         100           1 </td <td>1974</td> <td>1</td> <td>;</td> <td>ł</td> <td>ı</td> <td>0</td> <td>e</td> <td>ł</td> <td>ł</td> <td>199</td> <td>3</td> <td>66L</td> <td>2</td>  | 1974         | 1           | ;     | ł       | ı        | 0        | e      | ł           | ł      | 199         | 3              | 66L        | 2             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1975         | ı           | ŧ     | ł       | 1        | 215      | 18     | ı           | 1      | 792         | 100            | 1,007      | 118           |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1976         | ł           | ł     | 1       | ;        | 125      | 16     | ł           | ł      | 362         | <del>4</del> 5 | 487        | 91            |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1977         | I           | :     | 1       | 1        | 193      | 62     | ۱           | ł      | 421         | 58             | 614        | 68            |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1978         | 1           | 1     | 1       | ł        | 1        | 1      | 1           | ł      | 204         | ŞŞ             | 204        | 8             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1979         | ł           | ł     | 1       | 1        | 1        | 1      | ł           | ł      | 061         | 14             | 190        | 14            |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1980         | ;           | 1     | I       | ;        | 1        | 1      |             | :<br>; | 1           | ł              | 1          | 1             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1981         | 1           | ;     | 1       | <b>1</b> | 1        | I      | I           | 1      | ł           | ł              | ł          | ĩ             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1982         | •1          | 1     | . 1     | 1        | 1        | 1      | 1           | 1      | :           | :              | 1          | <b>1</b><br>, |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1983         | 1           | 1     | I       | . 1      | ł        | ı      | 1           | 1      | 1           | 1              | I          | ł             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1984         | 1           | :     | ;       | 1        | ł        | I      | 1           | ;      | ;           | . 1            | 1          | :             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1985         | :           | 1     | :       | ;        | 1        | 1      | t           | ;      | 1           | ł              | ;          | :             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1986         | ;           | 1     | ;       | 1        | 1        | 1      | I           | ;      | 41          | 15             | 41         | 15            |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1987         | :           | :     | ı       | 1        | ;        | 1      | ł           | ı      | ł           | :              | ł          | ı             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1988         | 1           | ;     | I       | 1        | ł        | :      | ı           | :      | ł           | :              | 1          | 1             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1989         | 1           | 1     | ı       | ł        | ł        | 1      | 1           | 1      | ı           | ł              | 1          | :             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 0661         | ;           | :     | 1       | I        | 1        | ;      | ł           | 1      | 1           | 1              | 1          | 1             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1661         | :           | 1     | 155     | 68       | 1        | ŗ      | 1           | 1      | 150         | 15             | 25         | 8             |
| -         330         -         1054         -         410         -         570         -           -         273         -         939         -         1054         -         570         -         570         -           -         242         -         1054         -         360         -         555         -           -         130         -         1,237         -         340         -         542         -           -         260         -         1,337         -         340         -         542         -           -         262         -         1,338         -         340         -         540         -           -         264         -         1,038         -         340         -         560         -         560           -         266         -         360         -         560         -         560         -         560         -         560         -         -         560         -         -           -         270         -         270         -         360         -         560         -         -         560   |              |             |       |         |          |          |        |             |        |             |                |            |               |
| 510         1         273         1         253         1         253         1           337         1         247         1         879         1         360         1         553         1           270         1         180         1         1,400         1         370         1         542         1           330         1         240         1         1,337         1         370         1         542         1           330         1         260         1         1,337         1         340         1         713         1           360         1         263         1         1,338         1         340         1         713         1           370         1         270         1         370         1         563         1         713         1           370         1         270         1         370         1         370         1         713         1           371         1         270         1         370         1         270         1         1         1         1         1         1         1         1         1  | OLK OPPERALL | 1100EX      | ł     | ULL.    | 1        | 1.054    | 1      | 410         | :      | 570         | ;              | 2,702      | 1             |
| 337       -       242       -       679       -       270       -       270       -       270       -       270       -       270       -       270       -       270       -       270       -       270       -       270       -       270       -       542       -       543       -       543       -       543       -       546       -       546       -       546       -       540       -       540       -       540       -       540       -       540       -       540       -       540       -       540       -       540       -       540       -       540       -       540       -       540       -       540       -       540       -       540       - <td< td=""><td>1972</td><td>210</td><td>1</td><td>279</td><td>1</td><td>939</td><td>;</td><td>360</td><td>ł</td><td>555</td><td>ł</td><td>2,643</td><td>I</td></td<>   | 1972         | 210         | 1     | 279     | 1        | 939      | ;      | 360         | ł      | 555         | ł              | 2,643      | I             |
| 270         -         180         -         1,040         -         370         -         542         -           330         -         231         -         1,237         -         340         -         712         -           510         -         260         -         1,332         -         340         -         712         -           360         -         263         -         1,323         -         300         -         556         -         712         -           382         -         263         -         1,323         -         300         -         556         -         712         -         713         -         713         -         713         -         713         -         713         -         713         -         713         -         714         -         713         -         714         -         713         -         -         714         -         714         -         714         -         714         -         714         -         714         -         714         -         714         -         714         -         714         - <t< td=""><td>1973</td><td>337</td><td>ı</td><td>242</td><td>ı</td><td>6/18</td><td>1</td><td>270</td><td>;</td><td>270</td><td></td><td>1,998</td><td>I</td></t<>   | 1973         | 337         | ı     | 242     | ı        | 6/18     | 1      | 270         | ;      | 270         |                | 1,998      | I             |
| 330 $-$ 231 $ 1,237$ $ 340$ $ 712$ $ 300$ $ 260$ $ 1,329$ $ 300$ $ 556$ $ 300$ $ 264$ $ 1,329$ $ 300$ $ 556$ $ 270$ $ 264$ $ 1,038$ $ 300$ $ 566$ $ 270$ $ 264$ $ 1,038$ $ 300$ $ 566$ $ 270$ $ 266$ $ 903$ $ 400$ $ 560$ $ 240$ $ 240$ $ 230$ $ 560$ $   240$ $ 250$ $ 560$ $ 210$ $        -$  | 1974         | 270         | ı     | 180     | ı        | 1,040    | I      | 370         | ı      | 542         | ł              | 2,402      | ł             |
| 510 $ 260$ $ 1,322$ $ 300$ $ 636$ $ 360$ $ 262$ $ 1,329$ $ 300$ $ 556$ $ 382$ $ 264$ $ 1,038$ $ 300$ $ 556$ $ 270$ $ 266$ $ 903$ $ 400$ $ 560$ $ 270$ $ 266$ $ 903$ $ 400$ $ 560$ $ 240$ $ 203$ $ 203$ $ 260$ $ 560$ $ 240$ $ 210$ $ 230$ $ 560$ $                    -$ <td>1975</td> <td>330</td> <td>1</td> <td>231</td> <td>ı</td> <td>1,237</td> <td>1</td> <td>340</td> <td>ł</td> <td>712</td> <td>1</td> <td>2,850</td> <td>1</td>   | 1975         | 330         | 1     | 231     | ı        | 1,237    | 1      | 340         | ł      | 712         | 1              | 2,850      | 1             |
| 360 $ 262$ $ 1,329$ $ 400$ $ 556$ $ 270$ $ 264$ $ 1,038$ $ 300$ $ 761$ $ 270$ $ 264$ $ 1,038$ $ 300$ $ 761$ $ 270$ $ 265$ $ 903$ $ 400$ $ 761$ $ 270$ $ 203$ $ 903$ $ 330$ $ 590$ $ 240$ $ 203$ $ 203$ $ 290$ $ 590$ $    213$ $ 236$ $ 590$ $                  -$   | 1976         | 510         | ;     | 260     |          | 1,382    | ı      | 300         | 1      | 636         | 1              | 3,088      | I             |
| 382        264        1,038        390        761          2700        270        903        400        580          270        265        903        400        580          270        270        903        400        580          270        270        903        400        580          240        240        722        203        590          240        177        272        240        590            177        276        240        590            177        278        240        240            163        276        240        240   | 1977         | 360         | 1     | 262     | I        | 1,329    | ł      | 400         | 1      | 556         | 1              | 2,907      | ı             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1978         | 382         | :     | 264     | 1        | 1,038    | ı      | 300         | ł      | 192         | ł              | 2,745      | I             |
| 90       1       265       1       655       1       359       1       540       1         270       1       270       1       270       1       270       1       540       1         240       1       270       1       240       1       722       1       200       1       580       1         90       1       240       1       722       1       298       1       580       1         240       1       240       1       722       1       298       1       500       1         240       1       240       1       722       1       240       1       500       1         240       1       240       1       340       1       340       1       <  | 1979         | 270         | :     | 270     | ŧ        | 606      | ł      | 400         | ł      | 580         | ;              | 2,423      | ı             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 1980         | R           | 1     | 265     | :        | 655      | ;      | 359         | 1      | 540         | ;              | 1,909      | I             |
| 240        240        722        298        602          90        90        822        340        590            177        340        590             177        340        590            177        340        590          240        178        534        340        590          240        148        534        340        590          150        120        534        340        540          90        120        129        240        340          150        129        266        340           150        160        260  | 1981         | 270         | ;     | 270     | ł        | 903      | ;      | 400         | 1      | 580         | ı              | 2,423      | t             |
| 90     -     90     -     822     -     340     -     590     -       -     -     -     -     177     -     356     -     340     -       -     -     -     -     177     -     356     -     340     -       240     -     -     175     -     358     -     400     -       150     -     148     -     534     -     373     -     240     -       150     -     129     -     373     -     240     -     370     -       150     -     129     -     266     -     373     -     240     -       150     -     129     -     266     -     379     -       150     -     90     -     266     -     360     -       90     -     -     105     -     105     -     360     -  | 1982         | 240         | ;     | 240     | ı        | 722      | ;      | 298         | :      | 602         | ł              | 2,102      | 1             |
| 1     1     177     177     1356     1     340     1       1     1     1     175     1     631     1     400     1       1     1     1     175     1     536     1     340     1       1     1     1     175     1     631     1     400     1       150     1     128     1     534     1     330     1       150     1     129     1     373     1     240     1       1     1     1     1     266     1     379     1       150     1     669     1     266     1     379     1       150     1     266     1     360     1       150     1     210     1     266     1       150     1     105     1     260     1   | 1983         | 8           | 1     | 8       | :        | 822      | ł      | 340         | ł      | - 230       | 1              | 1,932      | 1             |
| 1     1     175  | 1984         | ;           | :     | ł       | ł        | 177      | 1      | 356         | ł      | 340         | 1              | 196        | ı             |
| 240      148      534      358      330        150      120      669      373      240           669      373      240        90       129      604      379        150      66      266      360        150      674      266      360        150      633      210      360        90      105      105      330   | 1985         | :           | ;     | ł       | ł        | 175      | ;      | 631         | ;      | 400         | ł              | 450        | 1             |
| 150     120     669     373     1     240     1       1     1     1     1     129     1     240     1       90     1     664     1     379     1       150     1     666     1     266     1     360     1       90     1     62     1     97     1     210     1       90     1     105     1     105     1     330     1   | 1986         | 240         | ł     | 148     | ſ        | 534      | 1      | 358         | :      | 330         | 1              | 1,610      | ł             |
| 1     1 <td>1987</td> <td>150</td> <td>1</td> <td>120</td> <td>1</td> <td>699</td> <td>;</td> <td>373</td> <td>:</td> <td>240</td> <td>ł</td> <td>1,552</td> <td>1</td>  | 1987         | 150         | 1     | 120     | 1        | 699      | ;      | 373         | :      | 240         | ł              | 1,552      | 1             |
| 90          66          90          266          360            150          62          97          210          360            90          33          97          210          360  | 1988         | :           | ;     | 1       | 1        | 129      | :      | 604         | ;      | 379         | ;              | 360        | ı             |
| 150 - 62 - 97 - 210 - 360 - 360 - 360 - 105 - 330 - 105 - 330 - 105 - 10 | 1989         | <b>06</b> · | ;     | \$      | 1        | ŝ        | ł      | 266         | 1      | 360         | ł              | 872        | ł             |
| 90 - 33 105 - 330 -  | 1990         | 150         | ı     | 62      | 1        | . 16     | 1      | 210         | ł      | 360         | I              | 879        | ł             |
|  | 1661         | <b>8</b> .  | 1     | 33      |          | ł        | ł      | 105         | ;      | 330         | ;              | 558        | ŀ             |

| Species        | Concon D-4                       | Daily Bag    | Possession |   |
|----------------|----------------------------------|--------------|------------|---|
| <u>Species</u> | Season Dates                     | <u>Limit</u> | Limit      | Area Open   |
| Pheasant       | Nov. 2-15                        | 2 cocks      | 4 cocks    | Statewide.  |
|                | Nov. 2-Dec. 1                    | 2 cocks      | 4 cocks    | All state and federal<br>lands (including private<br>lands leased by the<br>Division subject to<br>restrictions and closure<br>imposed by administering<br>agencies) in Carbon,<br>Duchesne, Emery, Grand,<br>Juab, Millard, San Juan,<br>Sanpete, Sevier, Tooele<br>and Uintah counties.   |
| Mourning       |                                  |              |            |   |
| Dove           | Sept. 2-30                       | 10           | 20         | Statewide (except lands<br>closed under CLOSED<br>AREAS).   |
| Band-Tailed    |                                  |              |            |   |
| Pigeon         | Sept. 2-30                       | 5            | 10         | Beaver, Garfield, Grand,<br>Iron, Kane, Millard,<br>Piute, San Juan, Sanpete,<br>Sevier, Utah, Washington<br>and Wayne counties.  |
| Chukar         | Sept.14-Nov. 30                  | ) 5          | 10         | Cache, Morgan, Rich,<br>Sanpete, Summit, Wasatch,<br>and Weber counties and<br>portions of the following<br>counties lying east of<br>Interstate 15: Box Elder,<br>Juab, Millard, Salt Lake,<br>and Utah; those parts of<br>Duchesne and Uintah<br>counties south of Highway<br>SR-40 and west of Highway<br>SR-88 and the Book Cliffs<br>Seep Ridge Road; and that<br>part of Sevier County<br>north of Interstate 70<br>from Salina to Cove Fort. |
|                | Sept. 14, 1991-<br>Jan. 31, 1992 | 5            | 10         | Beaver, Carbon, Emery,<br>Garfield, Grand, Iron,<br>Kane, Piute, San Juan,<br>Tooele, Washington and<br>Wayne counties; those<br>parts of Box Elder, Juab,<br>Millard, Salt Lake, and<br>Utah counties lying west<br>of I-15; and that part of<br>Sevier County south of<br>Interstate 70 from Salina<br>to Cove Fort.  |

APPENDIX D: Season dates, bag limits and areas open by upland game species, 1991.

| APPENDIX D | (continued) |
|------------|-------------|
|------------|-------------|

| pecies         | Season Dates | Daily Bag<br>Limit | Possession<br>Limit | Area Open  |
|----------------|--------------|--------------------|---------------------|--|
| -              |              |                    |                     | · · · ·  |
| Sage<br>Grouse | Sept. 14-22  | 3                  | . 6                 | Piute and Wayne counties<br>and that part of Garfiel<br>County beginning at the  |
|                |              |                    |                     | Garfield-Piute county<br>line and Highway SR-22;<br>then southerly on SR-22<br>to Antimony Creek;                          |
|                |              |                    |                     | easterly along this cree<br>and across the Griffin<br>Top to the junction of<br>the Escalante-Bicknell                     |
|                |              | · · ·              |                     | road; northerly on this<br>road to the Garfield-<br>Wayne county line;<br>westerly along this                              |
|                |              |                    |                     | county line to the<br>Garfield-Piute county<br>line; westerly along thi<br>county line to SR-22; ar<br>that part of Sevier |
| · .            | ·            |                    |                     | County south and west of<br>Interstate 70 and US-89.   |
|                | Sept. 14-22  | 2                  | 4                   | Beaver, Carbon, Daggett,<br>Grand, Iron, Kane, Rich<br>and Uintah counties;  |
|                |              | · .                |                     | those parts of Utah and<br>Duchesne counties<br>beginning near Soldier<br>Summit at the Utah-                              |
|                |              |                    |                     | Wasatch county line; the<br>south and east along the<br>county line to<br>Reservation Ridge; east<br>along this ridge to   |
|                | · · ·        |                    | · .                 | Argyle Creek; east along<br>this creek to the<br>Duchesne-Carbon county  |
|                |              |                    | · .                 | line; west along this<br>county line to the<br>drainage divide between   |
|                |              |                    |                     | the Spanish Fork and<br>Price rivers; north alou<br>this drainage divide to<br>the Utah-Wasatch county                     |
|                |              |                    |                     | line near Soldier Summit<br>that part of Duchesne<br>County north and east o   |
|                |              |                    |                     | the Duchesne River; that<br>part of Box Elder Count;<br>west of I-15; and<br>Garfield County except                        |
|                |              |                    |                     | that part listed in<br>Season Dates (A)(1) of<br>this proclamation.  |

| orest  | Sept. | 14- | Nov. | 30 | 4          | 8           | Statewide |
|--------|-------|-----|------|----|------------|-------------|-----------|
| Grouse | -     |     |      | (a | .ggregate) | (aggregate) |           |

## APPENDIX D (continued)

\_\_\_\_

| Species                               | Season Dates               | Daily Bag<br>Limit | Possession<br>Limit | Area Open  |  |  |
|---------------------------------------|----------------------------|--------------------|---------------------|--|--|--|
| Quail                                 | Nov. 2-15                  | 5 10               |                     | Beaver, Box Elder,<br>Carbon, Daggett, Davis,<br>Duchesne, Emery,<br>Garfield, Grand, Iron,<br>Juab, Kane, Millard,<br>Piute, Salt Lake, San<br>Juan, Sevier, Uintah,<br>Utah, Wayne and Weber<br>counties.  |  |  |
|                                       | Nov. 2-Dec. 31             | 5                  | 10                  | Washington County.   |  |  |
| Hungarian<br>Partridge                | Sept. 14-Nov. 30           | 5                  | 10                  | Cache, Davis, Morgan,<br>Rich, Summit, and Weber<br>counties; and that<br>portion of Box Elder<br>County east of Interstat<br>15.  |  |  |
| Wild Turkey                           | Sept. 14-<br>Jan. 31, 1992 | 5                  | 10                  | Tooele County and that<br>part of Box Elder County<br>west of Interstate 15.   |  |  |
| General<br>Season                     | May 1-24                   |                    | Limit 1<br>e Turkey | Kane and Wayne counties;<br>that part of Grand Count<br>south of the Dolores and<br>Colorado rivers; that<br>part of San Juan County<br>beginning at the LaSal<br>Junction of Highway SR-4<br>and US-191; then easter!<br>on SR-46 to the Lisbon<br>Valley Road;<br>southeasterly on this<br>road to the Island Mesa<br>Road; easterly on this<br>road to the Island Mesa<br>Road; easterly on this<br>road to the state line;<br>north along this state<br>line to the Grand-San<br>Juan county line;<br>westerly along this<br>county line to its<br>intersection with US-191<br>southerly on US-191 to<br>the LaSal Junction and<br>SR-46; and those parts of<br>Interstate 15. All of<br>Garfield County except<br>the Tropic area describe<br>in (L) WILD TURKEY<br>(LIMITED ENTRY<br>SEASON) (permit required)<br>below. |  |  |
| Wild Turkey<br>Limited<br>Entry Seasc | April 11-26<br>on          | Season<br>Male T   | Limit 1<br>urkey    | <b>Tropic-</b> Boundary begins<br>at the junction of Bryce   |  |  |

5 Permits Available Canyon National Park and

## APPENDIX D (continued)

| Species | Season Dates | Daily Bag Possessior<br>Limit Limit | Area Open  |
|---------|--------------|-------------------------------------|--|
|         |              | in Each Area                        | the Kane-Garfield county                             |
|         |              |                                     | line; then east along                                |
|         |              |                                     | this county line to a                                |
|         |              |                                     | point 3.0 miles east of                              |
|         |              |                                     | the road to Kodachrome<br>Basin directly south of    |
|         |              |                                     | Henrieville; directly                                |
|         |              |                                     | north to Henrieville and                             |
|         |              |                                     | Highway SR-12; north-                                |
|         |              |                                     | easterly on SR-12 to the<br>Dixie National Forest    |
|         |              |                                     | boundary; west along thi                             |
|         |              |                                     | forest boundary to the                               |
|         |              |                                     | Bryce Canyon National                                |
|         |              |                                     | Park boundary; south-                                |
|         |              |                                     | easterly along this                                  |
|         |              |                                     | boundary to the Kane-                                |
|         |              |                                     | Garfield county line.                                |
|         |              |                                     | New Harmony-Boundary                                 |
|         |              |                                     | begins at Cedar City and                             |
|         |              |                                     | Highway SR-56; then                                  |
|         |              |                                     | westerly on SR-56 to                                 |
|         |              | •                                   | Pinto Junction; south-<br>westerly on the Pinto      |
|         |              |                                     | Road to Page Ranch;                                  |
|         |              |                                     | southeasterly on the Pag                             |
|         |              |                                     | Ranch-Pace Draw-New                                  |
|         |              |                                     | Harmony road to New                                  |
|         |              |                                     | Harmony and Ash Creek;                               |
|         |              |                                     | southwesterly up this<br>creek to the summit 2.0     |
|         | ·            |                                     | miles west of Mount                                  |
|         |              |                                     | Baldy; south from the                                |
|         |              |                                     | summit to Leap creek;                                |
| •       |              |                                     | southeasterly along this                             |
|         |              |                                     | creek to Interstate 15;<br>northerly on I-15 to      |
|         |              |                                     | Cedar City and the                                   |
| ·       |              |                                     | Junction of SR-56.                                   |
|         |              |                                     |  |
|         |              |                                     | Marysvale-Boundary begin                             |
|         |              |                                     | at Deer Creek and Highwa<br>SR-89; then southwesterl |
|         |              |                                     | along Deer Creek to Gold                             |
| ·       | · · ·        |                                     | Mountain and to Mount                                |
|         |              |                                     | Belknap and the Beaver-                              |
|         |              |                                     | Piute county line; south                             |
|         |              |                                     | easterly along this<br>county line to Mount          |
|         |              | · · ·                               | Holly; easterly to Gold                              |
|         |              |                                     | Gulch and the Gold Gulch                             |
|         |              |                                     | Road; easterly on this                               |
|         |              |                                     | road to SR-89; northerly                             |
|         |              |                                     | on SR-89 to Marysvale an the Deer Creek Road.        |
|         |              |                                     | the beer treek koau.                                 |
|         |              |                                     | Pine Valley (west)-                                  |
|         |              |                                     | Boundary begins at Page                              |
|         |              |                                     |  |
|         |              |                                     | Ranch and Pinto Road;<br>then southwesterly on       |

## APPENDIX D (continued)

|                      |                                  | Daily Bag | Possession   |   |
|----------------------|----------------------------------|-----------|--------------|---|
| <u>Species</u>       | Season Dates                     | Limit     | <u>Limit</u> | Area Open   |
|                      |                                  |           | · ·          | SR-18; south on SR-18 to<br>St. George and the<br>junction with Interstate<br>15; northeasterly on I-15<br>to Leap Creek; north-<br>westerly along this creek<br>to the summit 2.0 miles<br>west of Mount Baldy;<br>north from the summit to<br>Ash Creek; northeasterly<br>along this creek to New<br>Harmony; northwesterly up<br>pace Draw on the New<br>Harmony to Page Ranch<br>Road to Page Ranch and<br>the junction with the<br>Pinto Road. |
| Ptarmigan            | Sept. 8-Oct. 16                  | 4         | 8            | Daggett, Duchesne, Summit<br>and Uintah counties.   |
| Cottontail<br>Rabbit | Sept. 14, 1991-<br>Feb. 29, 1992 | 10        | 20           | Statewide.  |
| Snowshoe<br>Hare     | Sept. 14, 1991-<br>Feb. 29, 1992 | 5         | 10           | Statewide.  |

|               | Questionnaires | Total   |         | Useable |         | Licensees Who |
|---------------|----------------|---------|---------|---------|---------|---------------|
| Year          | Mailed         | Returns | Percent | Returns | Percent | Did Not Hunt  |
| 1962          | 10,068         | 4,122   | 40.9    | 3,433   | 34.1    | 22.0          |
| 1963          | 11,058         | 5,062   | 45.8    | 4,325   | 39.1    | 21.0          |
| 1964          | 10,718         | 4,840   | 45.2    | 4,180   | 39.0    | 23.0          |
| 1965          | 11,917         | 6,232   | 52.3    |         | 0.0     | 34.0          |
| 1966          | 13,131         | 5,734   | 43.7    | 5,734   | 43.7    | 34.6          |
| 1967          | 12,012         | 5,764   | 48.0    | 5,764   | 48.0    | 25.1          |
| 1968          | 14,068         | 6,138   | 43.6    | 6,138   | 43.6    | 25.6          |
| 1969          | 15,036         | 6,429   | 42.8    | 6,429   | 42.8    | 28.0          |
| 1970          | 14,730         | 6,639   | 45.1    | 6,639   | 45.1    | 38.8          |
| 1971          | 15,149         |         | 43.2    |         | 0.0     |               |
| 1972          | 15,272         |         |         | 6,399   | 41.9    |               |
| 1973          | 17,572         |         |         | 7,999   | 45.5    |               |
| 1974          | 27,379         | 9,157   | 33.4    | 8,027   | 29.3    | ·. <b></b>    |
| 1975          | 26,657         | 10,880  | 40.8    | 9,132   | 34.3    |               |
| 1976          | 21,250         | 7,889   | 37.1    | 6,226   | 29.3    |               |
| 1977          | 20,984         | 9,329   | 44.5    | 8,099   | 38.6    |               |
| 1978          | 24,733         | 7,575   | 30.6    | 6,529   | 26.4    |               |
| 1979          | 27,616         | 10,498  | 38.0    | 9,274   | 33.6    | 26.4          |
| 1980          | 27,952         | 9,857   | 35.3    | 8,496   | 30.4    | 33.1          |
| 1981          | 13,925         | 7,941   | 57.0    | 6,367   | 45.7    | 31.4          |
| 1982          | 22,609         | 10,167  | 45.0    | 8,734   | 38.6    | 27.0          |
| 1983          | 23,430         | 10,324  | 44.1    | 9,497   | 40.5    | 28.7          |
| 1984          | 12,026         | 6,455   | 53.7    | 6,324   | 52.6    | 31.1          |
| 1985          | 10,772         | 5,904   | 54.8    | 5,843   | 54.2    | 35.2          |
| 1986          | 11,103         | 5,329   | 48.0    | 5,256   | 47.3    | 34.2          |
| 1987          | 10,022         | 4,294   | 42.8    | 4,272   | 42.6    | 30.1          |
| 1988          | 15,350         | 6,650   | 43.3    | 6,527   | 42.5    | 35.6          |
| 1989          | 12,894         | 5,135   | 39.8    | 5,105   | 39.6    | 36.7          |
| 1 <b>99</b> 0 | 12,236         | 5,264   | 43.0    | 5,175   | 42.3    | 39.1          |
| 1991          | 15,054         | 6,419   | 42.6    | 6,212   | 41.3    | 42.7          |

APPENDIX E. Summary of upland game harvest questionnaire returns, 1962-91.