UTAH UPLAND GAME ANNUAL REPORT 1997

UTAH DIVISION OF WILDLIFE RESOURCES DEPARTMENT OF NATURAL RESOURCES PUBLICATION NO. 98-22

UTAH

.....

UPLAND GAME

Annual Report

1997

Prepared by:

Dean L. Mitchell Upland Game Program Coordinator

and

Linda Rawley Wildlife Section Office Manager

Annette Henry Wildlife Section Biometrician

PUBLICATION NO. 98-22

Annual Performance Report for Federal Aid Project W-16-RD-1 Job A-4

Utah Department of Natural Resources

DIVISION OF WILDLIFE RESOURCES

An Equal Opportunity Employer

John Kimball Director

"FINDING OUT HOW MANY THERE ARE LEFT IS THE LEAST OF THE PURPOSES OF GAME CENSUS.

MEASURING THE RESPONSE OF GAME POPULATIONS TO CHANGES - DELIBERATE OR ACCIDENTAL -IN THEIR ENVIRONMENT IS THE BIG PURPOSE.

CONTINUOUS CENSUS IS THE YARDSTICK OF SUCCESS OR FAILURE IN CONSERVATION."

ALDO LEOPOLD 1932

TABLE OF CONTENTS

Í

Annual Performance Report 1
Introduction
Pheasant 10
Migratory Upland Game Birds 32
Mourning Dove
Band-tailed Pigeon 50
Chukar Partridge
Sage Grouse
Forest Grouse
Quail
Hungarian Partridge
Wild Turkey
Sharp-tailed Grouse
White-tailed Ptarmigan 169
Rabbits and Hares 177
Cottontail Rabbit
Snowshoe Hare
Appendix A: Weather Conditions 202
Appendix B: License Sales 207
Appendix C: DWR Summer Survey Effort 211
Appendix D: Season Dates, Bag Limits, Areas Open - 1997 216
Appendix E: Summary Harvest Questionnaire Returns

ANNUAL PERFORMANCE REPORT

State: UTAH

Grant Number: W-16-RD

Segment: 1

Grant Title: Statewide Upland Game Management Surveys and Inventories

Grant Agreement Period: Oct. 1, 1996 thru Sept. 30, 1997

Abstract: This report identifies progress and accomplishments of Segment No. 1 objectives, 1996-97. Results of annual population surveys and inventories conducted during the segment W-65-R-44 and harvest surveys conducted under W-16-RD-1 along with summaries of long-term trends of population indices derived and harvest estimates are included in the Utah Upland Game Annual Report 1996. Data obtained in 1996 are compared to 1995 and long-term averages.

The Federal Aid Annual Performance Report for W-65-R-44 was included in the Utah Upland Game Annual Report 1996, rather that this Annual Performance Report because of the annual reporting scheme initiated under W-65-R and because of the way population surveys and inventories and harvest data are collected.

Annual population surveys and inventories are collected during one segment and harvest surveys are conducted during the subsequent segment. The Utah Upland Game Annual Report is an attempt to summarize population survey and inventory data and harvest estimates for the same calendar year.

This reporting scheme may seem awkward, especially when one looks a Utah Upland Game Annual Report and sees a copy of a Federal Aid Annual Performance Report included for a segment that ended before harvest survey data was actually collected.

Because this reporting scheme is somewhat confusing, but makes the most sense from a biological perspective to report population survey and inventory information for the same calendar year as harvest, it is hope that the above explanation clarifies any confusion. Further, it is recommended that the reporting scheme remain the same.

I. OBJECTIVES OF GRANT PROPOSAL:

1. To annually monitor and evaluate 16 upland game species harvest and populations in Utah using appropriate surveys and inventories--on-going objective.

2. To administer Utah's upland game programs and to manage 16 upland game species based on population data obtained through Objective 1--on-going objective.

3. In conjunction with the Utah State University Extension Fisheries and Wildlife Specialist, compile, develop and publish a handbook pertaining to field identification, basic biology and ecology and sexing and aging techniques for Utah upland game.

Progress Statement and Summary of Work Completed During The Segment For Each Objective:

1. To annually monitor and evaluate 16 upland game species harvest and populations in Utah using appropriate surveys and inventories.

Ongoing Objective. Annual inventory procedures for ring-necked pheasants included winter sex ratio counts and summer roadside counts. The winter sex ratio counts were conducted from December 15, 1996 through February 10, 1997, as snow cover conditions allowed. Indices derived include hen-cock ratios and pheasants observed per 100 hours. Annual summer roadside counts (three or more per route) were conducted from July 22-August 22 on permanently established routes. Indices derived include pheasants per mile, young per hen, mean brood and percent of hens with young. Pheasant crowing territory counts were

ANNUAL PERFORMANCE REPORT UTAH W-16-RD-1 STATEWIDE UPLAND GAME MANAGEMENT SURVEYS AND INVENTORIES

selectively conducted by DWR's northern and central regions. Crowing territory counts are used by biologists to determine if habitat improvement projects are successful in increasing populations, and also as another index to local pheasant breeding populations.

Mourning dove breeding population trend was determined via 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, 1997.

Random brood counts were conducted on chukar and Hungarian 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 1996 for comparable grounds 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 pre-established 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 (1996) resident small game license file and 1996 combination license file was used. The modified computerized pull-apart mailer was again used to obtain harvest data. Separate questionnaires were mailed to all ptarmigan, band-tailed pigeon 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 Utah Division of Wildlife Resources Public Services Section. Wild turkey, band-tailed pigeon and ptarmigan questionnaires were analyzed separately by Utah Division of Wildlife Resources Wildlife Section personnel.

Upland game hunters were checked at checking stations, and random field 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.

In August, 1996 a helicopter survey of chukar partridge populations was initiated. No Federal Aid funds were spent on the survey. One ten mile transect was flown in Utah's west desert to determine chukar population densities. Index derived was chukars per mile. The same transect was flown again in August, 1997, using Federal Aid funds under W-16-RD-1. This survey is flown only in Utah's west desert and nowhere else in Utah.

The project leader completed a review of the literature relative to survey methods used to inventory wild turkey populations. Procedures were compiled and data forms developed for a wild turkey winter flock count technique to be used in Utah. The winter flock count survey will be initiated throughout Utah beginning in the winter, 1997.

No new sage or sharp-tailed grouse leks were described or mapped during the segment.

The project leader worked closely with the waterfowl program coordinator and agency planner in scoping and deciding how best to collect Utah migratory bird hunter data for the federal Migratory Bird Harvest Information

ANNUAL PERFORMANCE REPORT UTAH W-16-RD-1 STATEWIDE UPLAND GAME MANAGEMENT SURVEYS AND INVENTORIES

Program (HIP) to come on line in 1998. Two options are being considered: 1) require hunters to telephone a 1-800 number to register for HIP and 2) require hunters to complete a HIP postcard survey at the time a small game or combination license is purchased. In addition, DWR's wildlife section chief presented a proposal to 5 Regional Advisory Councils, the public and the Utah Wildlife Board to increase small game and combination license fees by one dollar in an effort to generate revenue for implementing HIP. The license fee increase will be considered by Utah's Legislature in January, 1998. The fee increase, if authorized, will not go into effect until January, 1999.

The project leader completed the "Recommended Management Procedures" section of the 4-Corners Bandtailed Pigeon Management Plan. Other sections of the plan are being submitted by outside authors to the project leader who serves as the plan's editor. A draft plan should be available at the March (1998) Pacific Flyway Regulations Meeting.

2. <u>Ongoing Objective</u>. To administer Utah's upland game programs and to manage 16 upland game species based on population data obtained through Objective 1.

Data collected in objective 1 was used by DWR personnel to formulate harvest recommendations for 16 species of upland game in Utah. DWR personnel met in April, 1997 to formulate harvest recommendations for fall 1997 upland game seasons. DWR recommendations were presented at 5 Regional Advisory Councils and the public throughout the state in May. In June, recommendations were presented to the Utah Wildlife Board who made final decisions for recommendations to include in the 1997-98 Utah Upland Game Proclamation.

In September, October and November, 1996, the project leader also presented DWR recommendations for wild turkey conservation permits and limited entry turkey hunting unit permits to 5 Regional Advisory Councils, the public and the Utah Wildlife Board.

3. <u>Objective To Be Completed Over 2 Years.</u> In conjunction with the Utah State University Extension Fisheries and Wildlife Specialist, compile, develop and publish a handbook pertaining to field identification, basic biology and ecology and sexing and aging techniques for Utah upland game.

The project leader approached the Utah State University Extension Fisheries and Wildlife Specialist about the prospects of putting together the upland game handbook described above. A proposal depicting costs and time frame for the effort was received by the project leader from the Fisheries and Wildlife Specialist. The proposal is for compiling, developing and publishing the handbook as well as some follow-up research to determine how much the handbook will be used and how effective it will be at disseminating information.

No funds were requested to implement this objective in FY97. Subsequently, this objective will be completed in FY98 and FY99 instead of FY97 and FY98 as originally intended.

Location of Work Performed: Statewide.

Actual Cost:

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.

This is the twenty-seventh addition 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-16-RD. Information contained herein was collected and compiled by conservation officers, biologists, wildlife 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. 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 1997, a total of 54,125 Utah sportsmen spent 388,937 days afield in pursuit of various upland game species (Table 1). The harvest of upland game totaled 424,908 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 1997 upland game hunting seasons are shown in Appendix D.

GENERAL HARVEST QUESTIONNAIRE

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

A total of 13,689 upland game questionnaires, a 15.18 percent sample of Utah's potential resident upland game hunters, were mailed. Of the total, 578 (4.22%) questionnaires were undeliverable. Of the 15,111 questionnaires delivered, 4,338 (33.09 %) useable upland game questionnaires were returned. Of those, 1,734 purchased a license but did not hunt upland game. By dividing the total of 90,167 eligible licensees by the usable returns (4,338), a projection factor of 20.785384 is derived.

The 1997 hunter questionnaire sample size was greater than 10 percent of the total hunter population, 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 hunters and days-afield may be over-estimated where small samples are obtained, harvest per hunter-day should be relatively precise.

Table 1. Summary of harvest statistics from the general mail questionnaire for 1997.	rest statisti	cs from th	e general mail	questionnai	re for 1997.
	Hunters	Total	Hunter-Days	Bag Per	Bag Per Hunter
Species	Afield	Harvest	Afield	Hunter-Day	For Season
Pheasant	37,622	78,693	140,135	0.56	2.09
Mourning Dove	22,594	208,331	84,638	2.46	9.30
Band-Tailed Pigeon	58	86	209	0.47	1.69
Chukar Partridge	9,665	23,840	34,711	0.69	2.47
Sage Grouse	4,178	4,489	10,101	0.44	1.07
Forest Grouse	10,206	31,198	39,304	0.79	3.06
Quail	3,637	9,436	11,016	0.86	2.59
Hungarian Partridge	2,328	5,071	6,443	0.79	2.18
Wild Turkey					
Merriam's	339	81	1,208	0.07	0.24
Rio Grande	229	127	920	0.14	0.55
Sharp-Tailed Grouse	ł	1	ł	ł	I
White-Tailed Ptarmigan	18	4	37	0.11	0.22
Cottontail Rabbit	12,263	61,109	52,587	1.16	4.98
Snowshoe Hare	1,912	2,431	7,628	0.32	1.27
Total	ł	424,908	388,937	1	3
Total hunters afield for all species of upland game =	species of	upland g	ame =	54,125	

6

Î

ľ

Î

18.86 22.66 17.86 0.03 3.53 69.51 41.74 7.72 6.72 4.30 0.42 0.11 0.63 1997 ł 40.38 72.92 17.76 26.99 25.21 0.02 0.06 9.71 0.56 0.29 1996 8.05 4.01 3.97 1 16.49 25.09 10.85 19.85 18.29 0.04 66.52 74.12 69.60 41.89 37.88 7.93 4.16 0.54 0.22 3.60 0.11 1995 ; 1993 1994 17.07 10.37 25.67 3.83 0.01 3.16 0.03 5.93 0.58 0.21 ł Percent of Total 36.55 30.85 33.10 20.19 34.13 35.10 29.50 19.04 17.00 0.01 12.65 11.07 0.02 0.78 4.62 6.12 0.07 3.51 ł *Although wild turkey, sharp-tailed grouse, band-tailed pigeon and white-tailed ptarmigan harvest was determined by separate 0.02 1992 0.03 25.67 0.83 0.03 6.39 69.14 71.27 5.47 4.90 ł 12.95 percent of total upland game hunters afield who reported hunting each species during 1989-97 23.29 17.08 0.02 5.53 0.02 4.30 0.86 0.03 1991 4.27 1 17.30 22.50 35.60 72.50 35.00 13.90 1990 0.02 6.30 0.01 4.00 3.60 0.80 ł 25.40 34.20 16.30 13.40 75.20 32.40 1989 0.03 0.70 0.01 7.30 3.20 4.60 l 37,622 22,594 10,206 12,263 9,665 4,178 1.912 54,125 2,328 3,637 1997 339 229 18 8 ł 14,470 41,854 23,180 10,197 15,492 57,401 2,276 5,574 4,622 2,299 1996 166 320 12 5 ł 59,590 49,518 55,159 20,896 13,840 10.088 1,983 4,374 38,391 1995 9.097 5,987 2,294 296 123 65 20 I 12,709 36.705 20,743 1.565 8.455 5,133 2,936 1,899 9,827 1994 285 105 13 1 4 Number of Hunters 17,578 19.725 39.640 10,128 12,029 6,594 2.755 3,649 2.090 1993 466 ø 4 ł σ 58,423 41,640 20,509 11,125 18,021 15,000 7,393 3,732 3,198 2,861 1992 **1**8 484 20 1 ł 23,079 21,137 42.813 22.632 10,577 14,421 67,017 64,868 61,922 8.018 2,644 2,662 3.427 1991 15 532 8 13 ł 47,025 22,700 11,195 14,591 9.014 2,614 2,305 4.095 1990 531 7 Ģ ł 10,910 22.878 50,382 21,696 16,988 4,895 9,002 3,111 2,136 1989 477 ส 1 0 White-Tailed Ptarmigan Table 2. Number and Sharp-Tailed Grouse* Hungarian Partridge Band-Tailed Pigeon* Cottontail Rabbit Snowshoe Hare Mourning Dove Total Hunters** **Rio Grande** Forest Grouse Sage Grouse Merriam's Wild Turkey* Pheasant Species Chukar Quail

questionnaires, it is assumed that these hunters are derived from the same group of hunters who reported hunting other upland game bird species.

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

	No Dag	La substance		2																	
	taci	Connering		2	Hunting			Hunting		± ₽	Hunting		۰ ع	Hunting		۶	Hunting		Ŷ	Hunting	
		Trips	%	Bag	Trips	%	Bag	Trips	% 8	Bag	Trips	%	Bag	Trips	%	Bag	Trips	*	Bag	Trips	%
	714	3,204	22	51	583	6	318	539	59	1	3	:	1	1	:	109	383	5 8	72	123	59
	500	2,685	19	39	456	6	147	362	4	:	1	I	ı	I	I	62	201	ŝ	36	108	33
	795	3,317	24	53	691	æ	248	550		220	468	4	188	281	67	71	305	33	59	177	33
	911	3,115	5 8	09	681	6	266	568	_	45	154	58	4	229	63	94	316	8	62	150	ŧ
****	,165	4,009	29	ł	ł	ł	486	851		82	168	64	225	311	22	128	371	34	93	233	\$
** ** **	,242	4,297	5 8	136	1,067	.	523	881	\$	5	131	ž	133	331	\$	106	315	34	63	219	29
	,353	4,833	28	153	1,319	12	477	915	-	138	266	22	194	475	4	161	424	38	116	315	37
-	,422	5,223	27	236	1,312	1 8	495	1,095	-	185	449	•	177	665	27	171	457	39	132	347	28
	,897	5,335	36	214	1,568	7	647	1,250		241	648		273	656	42	182	465	39	148	292	5
1970 1,	,546	4,686	33	193	1,274	-92	466	962		257	603	4	209	999	3	126	314	\$	101	210	48
1971 1,	,783	5,049	35	210	1,333	1 6	464	934		234	625		223	673	33	162	385	42	87	210	41
1972 1,	.743	4,617	38	270	1,421	1 0	457	827		259	593	\$	271	794	34	154	339	45	120	224	5
1973 1,	,659	4,699	35	209	1,596	9	414	824	50 2	226	553	4	329	1,019	32	128	311	4	97	196	49
1974 2,	2,347	5,323	4	323	1,961	17	511	955		292	668	\$	388	1,259	31	157	333	47	108	227	1 8
1975 2,	2,472	5,604	\$	329	2,554	3	607	1,105	55 3	374	901	4	535	1,354	\$	177	406	4	121	220	55
1976 1,	,739	4,294	\$	273	1,709	1 6	408	781	-	259	783	8	371	1,131	33	105	266	39	87	184	47
1977 1,	,874	5,175	ġ	295	1,967	15	511	943		394	972		528	1,388	38	125	299	4	106	247	1 3
-	,507	4,858	ŝ	279	1,986	7	343	882		õ			419	1,419	ĝ	103	306	34	85	246	35
~	222	7,024	32	343	2,671	33	528	1,150	46	5			585	1,691	35	130	403	32	119	243	49
1980 1,	,684	5,867	59	268	2,145	12	458	1,008	45 3	392	944		501	1,283	39	87	264	34	76	206	36
1981 1,	,305	4,637	78	239	1,558	15	302	699	45 1	184	493	_	297	741	\$	97	241	\$	57	172	33
4	,768	6,725	8	363	2,338	16	406	824	4 4	569	620		325	919	35	128	292	\$	68	176	2
1983 1,	,645	7,153	33	348	2,381	1 5	362	880	4	294	729	\$	300	1,118	27	105	310	34	82	225	36
-	,245	4,643	21	274	1,711	9	287	548	52 2	<u>0</u> 2	435	4	270	640	42	84	189	4	5	76	67
1985 1,	,207	4,017	8	221	1,500	15	208	426	- 6	161	376		228	656	35	61	148	4	35	25	65
~	,211 ,211	3,615	33	224	1,476	15	237	637	4	139	368		221	667	33	58	125	\$	36	61	20
	863	2,837	8	1	1,047	2	194	537	36	8	307	_	113	671	2	4 6	11	Ŧ	34	94	35
-	,372	3,953	35	24	1,525	9	308	2	4	187	567	z	224	1,184	†9	63	171	37	73	154	4
•	,126	2,985	38	184	1,184	9	263	614	1 3	183	468	_	267	961	27	68	160	4	53	108	64
	988	2,745	38	161	1,234	2	282	632	45 1	<u>6</u>	483	7	233	810	6 8	5	132	ŧ	46	117	8
1991 1,	1,062	2,461	4	205	1,301	1 6	309	608	51 1	198	461	2	262	829	32	69	152	45	67	153	\$
1992 9	905	2,760	8	156	1,150	4	298	797	43 1	69	432	8	208	6 96	3	68	168	\$	67	186	36
1993 1,	,035	2,086	8	194	1,038	6	354	533		<u>9</u>	347	22	346	633	22	85 85	192	\$	75	110	68
1994 8	889	2,088	5	230	1,180	8	278	481	58 1	₹	292	5	243	559	\$	64	167	38	78	108	22
1995 9	919	2,452	37	224	1,286	17	259	554	47 1	69	347	6 4	277	790	35	3 2	241	39	2	123	\$
1996 7	742	2,259	33	173	1,164	15	225	526	_	19	255	4	187	775	54	81	215	38	38	103	37
	743	2,159	34	181	1,193	15	246	537	46	10	220	33	183	641	53	67	181	37	53	118	45
AVERAGES																					
(1961-96)			33			14			49			39			35			39			46

8

ĥ

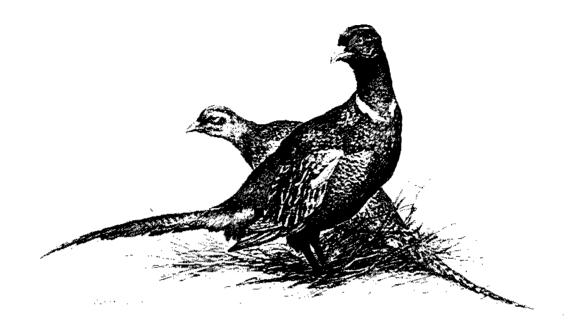
į

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 band-tailed pigeon, wild turkey, 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.



During the 1996-97 winter temperatures were above normal November-March. Precipitation was also above normal November-January.

Weather conditions during the nesting season (April-July) were wetter than normal in 1997. Statewide monthly average temperatures were above normal (May-June). Pheasants observed on roadside routes was below 1996, but hens appeared to have more young.

Harvest statistics compiled from the questionnaire indicated a slight decrease in the number of pheasants taken compared to 1996. Harvest decreased 6 percent from 1996, but remained 60 percent below the long-term average.

The pheasant hunt is the most popular game bird hunt in Utah. Despite its popularity among Utah sportsmen, Utah's pheasant population continues to decline steadily. Primary reasons for population declines are due to outright losses of critical habitat and degradation of remaining habitat.

Winter Sex Ratio Counts

Winter sex ratio counts provide an index as to how harvest of roosters only is affecting pheasant populations. In Utah, one rooster for every two, three or four hens is most common. One rooster for every ten hens is biologically acceptable in that one rooster can easily service ten hens in the wild. Based on this biological concept, hunting of rooster pheasants only does not appear to be affecting the populations.

Results of the survey for the winter of 1996-97 and long-term trends are shown in Tables 1 and 2 of this section. Statewide comparisons to the winter of 1994-95 and the 10-year (1986-95) average are as follows:

	Winter of _1996-97	Percent change from 1995-96	Percent change from <u>Average</u>
Total pheasants counted (roadside)			
Hens per cock			
Pheasants observed per 100 hours			
Total hours effort (roadside)			

As a result of extreme competition for biologist's time, winter sex ratio data was not collected in Utah in the winter of 1996-97.

Roadside Counts

A summary of summer roadside pheasant counts for 1997 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. Summer 1997 survey results compared to 1996 and the 10-year (1987-96) average follow:

		Percent change from	Percent change from
	<u>1997</u>	<u>1996</u>	Average
Total pheasants observed	314	-22	-69
Total miles driven	751.3	-13	-47
Pheasants per mile	0.41	-11	-38
Average brood size	4.49	-8	-8
Young per hen	3.75	+22	+3
Percent of hens with young	85	+25	+12

Total pheasants observed decreased 22 percent and pheasants per mile decreased 11 percent. Percent of hens with young increased 25 percent while average brood size decreased 8 percent.

Fewer total pheasants were observed on roadside counts in 1997 than in 1996. However, reproductive success per adult hen was up from the previous year. Observers may not have been able to see as many pheasants along roadside routes because of abundant vegetation from above normal precipitation April-June.

Harvest

Hunter Questionnaire

Results of the hunter questionnaire for 1997 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 1997 harvest statistics to 1996 and the previous 49-year average follow:

		Percent change from	Percent change from
	<u>1997</u>	<u>1996</u>	Average
Pheasant hunters	37,622	-10	-50
Pheasants harvested	78,693	-6	-60
Hunter-days afield1	140,135	-11	-33
Pheasants per hunter-day	0.56	+6	-37
Pheasants per hunter	2.09	+4	~18

Total hunters decreased 10 percent from 1996 and remained 50 percent below the long-term average. Total harvest decreased 6 percent from 1996. Hunter success (pheasants per hunter-day) increased 6 percent from 1996. Pheasants per hunter increased 4 percent and remains 18 percent below the long-term average.

Long-term trends (1948-97) of total hunters, hunter-days, harvest and hunter success are shown in Figures 1 and 2. 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 fragmentation resulting in increased predation. Figure 1. Statewide trends of pheasant harvest statistics, 1948-97.

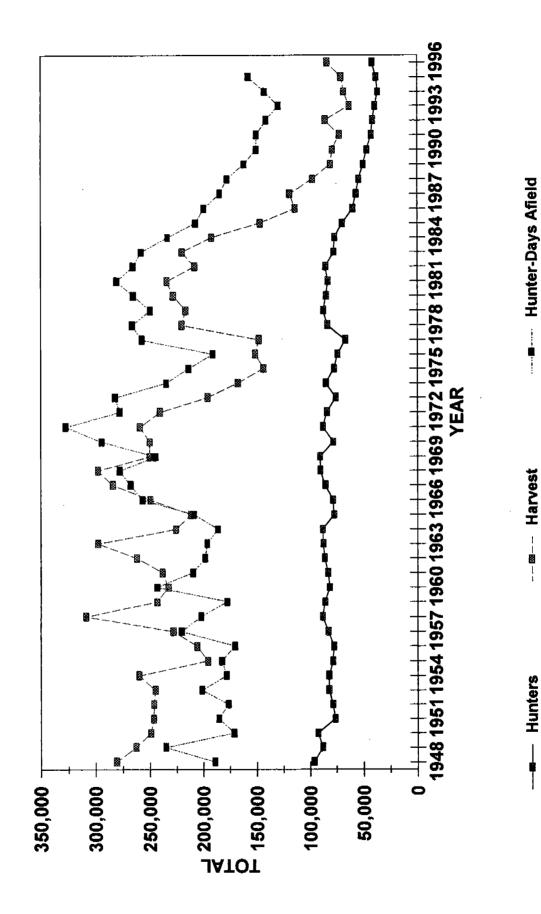
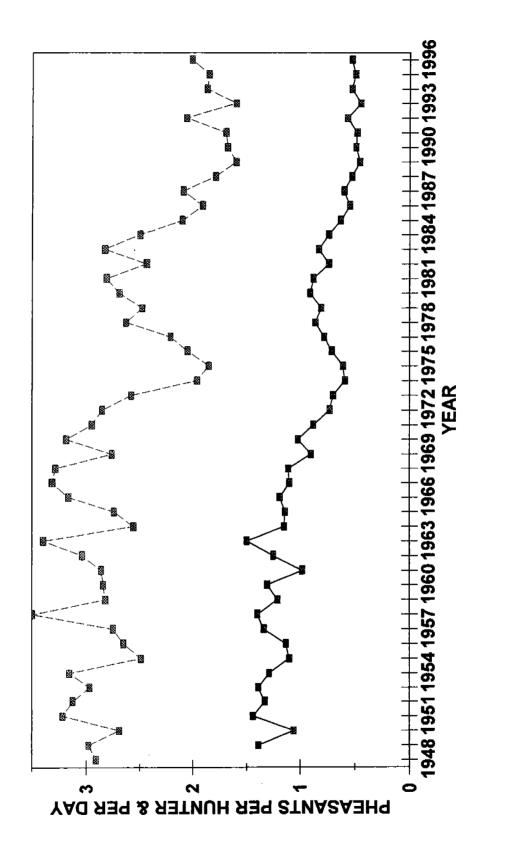


Figure 2. Statewide trends of pheasant hunter success rates, 1948-97.



------ Pheasants Per Hunter-Day ------ Pheasants Per Hunter

Field Bag Checks

Field bag checks provide an index of opening day or weekend hunter harvest success rates.

A summary of pheasant field bag check data for 1997 is shown in Table 14. The hunter success trend determined via bag checks since 1991 is found in Table 15. A comparison of 1997 data, on a statewide basis, to 1996 and the 10-year (1987-96) average follow:

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Total hunters checked	140	+23	-87
Total hours hunted	301	+15	-90
Pheasants per hunter			50
(complete hunts)	0.36	-5	+2
Pheasants bagged per 100 hours	17	+6	+8
Average hours per hunter-day		•••	+0
(complete hunts)	2.15	-7	~13
Hours hunted per pheasant bagged (complete hunts)	5.09	+310	-24

In 1996, hunters spent 7 percent less time afield on an average day during the opening weekend. Hours hunted per pheasant bagged increased 310 percent. Field bag check data was collected only in Emery County.

	ž	Roadside Observations	obsel	vation	00		Flushing Observations	do be	ervatio	SU		Effort Expended	-		Pheas. Obs.
Region and					Cocks/					Cocks/	Vehicle	Hours of Effort			100 Hours of
County	COCKS	COCKS HENS	lotal	COCK	100 Hen	COCKS	Hens	I OTAI	Cock	100 Hen	MILES	Venicle	Walk	waik lotal	Koad. Ups.
Northern Region															
Box Elder	ł	1	1	ł	1	ł	ł	1	ł	1	ł	ł	1	I	1
Cache	ł	1	ł	1	1	ł	ł	1	ł	ł	1	ł	I	I	1
Davis	ł	1	1	ł	ł	ł	;	ł	ł	I	ł	ł	1	I	ł
Morgan	ł	ł	ł	ł	ł	ł	:	ł	ł	1	1	1	1	1	1
Rich	ł	1	ł	ł	ł	ł	1	ł	ł	1	I	1	1	ł	1
Summit	I	ł	ł	1	1	ł	ł	ł	ł	1	1	ł	1	ł	ł
Mehar	1	ł	ł	ł	ļ	1	1	:	1	:	I	ł	1	:	1
DEGIONAL TOTALS							1		1						1
Central Region															
-luah	I	1	ł	ł	I	ł	1	I	ł	ł	I	ł	1	ł	1
Salt I ake	1	ł	1	ł	ł	Ĭ	I	1	ł	I	ł	1	I	1	1
Sannete	I	ł	I	ł	ł	;	1	1	ł	ł	I	1	I	1	ł
Tooele	1	1	ł	1	1	ł	I	I	I	ł	1	1	I	I	1
Utah	1	;	I	ł	1	I	ł	1	ł	1	ł	ł	I	I	1
Wasatch	I	ł	1	I	ł	ł	ł	ł	ł	ł	I	ł	I	ł	ł
REGIONAL TOTALS	1	:	1	:	1		1	1	1	1	1	1	1	ı	1
Southern Region	1	1	1		I	1	1	1		1	1	I	I	1	1
Beaver	1	1	1	ł	ł	I	ł	I	I	ł	ł	1	ł	ł	1
Iron	ł	ł	I	ł	I	1	I	1	1	1	1	ł	I	1	I
Kane	ł	1	ł	ł	ł	I	I	I	I	I	ł	ł	I	1	I
Millard	I	ł	I	I	ł	ł	ł	I	ł	ł	I	1	ł	ł	ł
Piute	1	ł	I	1	ł	1	ł	I	ł	ł	ł	1	I	I	1
Sevier	ł	ł	1	1	I	ł	ł	1	ł	;	1	:	ł	ł	ł
Washington	I	ł	I	1	ł	ł	ł	ł	:	1	I	1	I	1	ł
Wayne	:	:	1	1	1	1	1	1	1	1	1	1	I	1	1
REGIONAL TOTALS	1	1	1	1	I	1	1	1	1	1	1	1	1	1	1
Northeastern Region	1	1	ł	1	1	ł	ł	I	ł	I	1	I	ł	1	I
Daggett	I	ł	ł	I	I	1	1	1	1	ł	1	1	1	1	1
Duchesne	ł	ł	1	I	I	ł	I	I	ł	ł	1	ł	I	ł	1
Uintah	1	I	L	1	1	1	1	1	1	1	1	1	I	I	1
REGIONAL TOTALS	1	1	1	1	I	:	1	I	1	1	1	1	I	1	1
Southeastern Region	1	1	1	ł	1	1	I	I	1	I	1	1	I	1	1
Carbon	ł	1	1	ł	ł	ł	I	ł	1	ł	I	:	1	1	ł
Emery	ł	1.	ł	ł	1	1	I	1	!	I	ł	ł	I	I	1
Grand	1	ł	1	ł	1	I	I	1	ł	1	ł	ł	I	1	ł
	1	I	ł	ł	I	1	1	1	1	1	I	1	I	1	1
REGIONAL TOTALS	1	1	I	1	I	1	1	ł	1	1	I	1	I	1	:

- ----

16

26-2661 Z6-1881	S-LARL	77	1992-9		さわりのわた		8786C		1996-96		1996-9		
Region and County	Hens/ Cock	Birds/ 100 Hr	Hens/ Cock	Birds/ 100 Hr	Hens/ Cock	Birds/ 100 Hr	Hens/ Cock	Birds/ 400 Lr	Hens/	Birda/	Hens/	Birds/	Average
Northern Region			11222		2000		COCh		YND)		COCP.		0881-1881
Box Elder	1	ł	1	ł	I	ı	I	1	ł	;	:	1	
Cache	:	ł	:	1	ł	;	:	:	:	;	:	:	
Davis	1.38	317	:	:	:	:	1	;	:	1	1	;	
Morgan	:	:	:	:	:	;	;	:	:	;	:	:	
Rich	:	:	:	:	;	:	ı	;	:	;	;	ı	
Summit	1	:	;	;	;	:	:	:	;	;	:	J	
Weber	4.62	1.066	2,33	333	;	:	;	1	ł	I	;		
REGIONAL TOTALS	3.66	794	2.33	333			1						100 00 0
Central Region													
Jueb	;	1	8	I	1	;	1	;	:	t	1	1	
Salt Lake	0.25	EO0	ų į	905	ł	1	:	ł	ľ	1	;	1	
Sources		200	.40	000	1	. :	I	:	1	I	:	:	
	4 G	040	1	1	00	RL	:	1	1	I	:	ł	
1 ooele	2.60	Z,100	3.30	;	:	ł	;	1	ł	1	:	:	
Utah	1.99	2,329	1.82	1	3.91	974	2.33	737	1	ł	;	;	
Wasatch	1	:	I	:	;	ł	;	:	•	:	:	1	
REGIONAL TOTALS	2.27	1,706	2.24	18,857	3.81	641	2.33	737	:		1	. 1	2.66 5.485
Southern Region									:	:	. 1	:	
Beaver	3	1	1	:	:	I	I	ł	;	1	. 1	I	
Iron	:	1	;	1	1	ı	;	:	1	;	1	: 1	
Kane	1	:	;	ł	:	ı	;	1		. 1	1		
Millard	:	:	2.87	800	:	: 1		: 1		1		I	
Plute	I	1		; 1		1 1		t i	1	1	1	1	
Sevier	: 2	1	1	1	1	1 1	1	:	1	1	:	ł	
Washington	1	1		11	; ;			:	ł	1	ł	1	
Warne	1	1		t :	1	1	•	8	1	1	1	1	
DEGIONAL TOTALE			100	-		•	•	8	1	,	1	1	
Northeastern Bealon			10.2	000	:	:	•	•	1	•	"	•	2.87 800
	:	;							ł	1	I	1	
		363			ł	8	1	ł	1	I	1	:	
bucilesiie Liinteh	4	070	0.69	1,/00	1	ı	ı	t	1	1	1	ł	
	4 97	4 034	100	1 600	•	1	1	E	:	1	1	•	
Southerstern Boulen	10.1	170'1	07.1	ODD ¹	•	8	t	8	1	1	•	8	1.33 1,311
southeastern region									:	I	I	1	
	1	1	1	ı	1	1	:	1	;	1	ı	1	
Emery	:	;	1	F	•	ı	1	ı	ı	1	t	1	
Grand	ł	1	ł	:	1	ı	1	1	t	ı	:	ı	
san Juan	r	t	1	1	1	1	1	1	ı	1	:	1	
REGIONAL TOTALS	3		1	1	1	;	1	ł	1	1	1		
STATE TOTALS	2.15	1,283	2.28	1,864	3.81	641	2.33	737	1	1			2.64 907

.

Table 3. Pheasant summer inventory, 1997.	amer Inv	entory,	1997.															
				Distinct		Mixed		Adults W/O									•	
ğ	No.	Total		Broods		Obser.		Young		Total	Total	Total		Pheas./ Young/			Young/	%Hens
	Routes	Miles	Total	Hens	Young	Hens	Young	Cocks	Hens	Hens Y	Young C	Cocks Pheas.	heas.	Mile	Mie	Brood	Ad. Hen w/Young	Buno,//
Northern Region		1																
Box Elder	2	60	0	0	•	~	7	-	0	2	-	-	₽	0.17	0.12	ł	3.50	100
Cache	1	ł	ł	1	ł	ł	1	1	1	ł	i	ł	1	1	ł	1	:	1
Davis	1	ł	ł	1	ł	ł	ł	ł	ł	1	;	1	I	:	ł	ł	;	ł
Morgan	1	ł	I	1	1	1	1	ł	1	ł	1	1	ł	1	:	I	ł	:
Rich	:	1	I	1	1	1	ł	ŀ	ł	1	:	ł	ł	1	ł	I	ł	ł
Summit	I	1	t	1	I	1	1	ł	1	1	1	ł	ł	1	1	1	ł	ł
Weber	ł	ł	1	I	1	1	1	1	1	I	t	:	1	1	1	1		1
REGIONAL TOTALS	2	60	0	•	0	7	-	+	•	2	2	-	ę	0.17	0.12	1	3.50	9
Central Region																		
Juab	-	35.5	0	0	0	0	6	0	0	0	2	0	2	0.06	0.06	ł	:	1
Salt Lake	1	ł	1	ł	1	I	1	ł	1	1	1	;	I	ł	1	I	1	1
Sanbete	ŝ	167.7	17	17	73	0	0	4	0	17	73	4	94	0.56	0.44	4.29	4.29	100
Tonele	ł	1	1	ł	ı	1	I	ł	:	1	1	:	ł	1	:	1	1	ł
Utah	•	216.6	23	23	108	9	23	10	9	35	131	9	176	0.81	0.60	4.70	3.74	83
Wasatch	1	:	1	I	ł	1	I	I	:	1	1	1	1	1	1	;	1	ł
REGIONAL TOTALS	-	419.8	\$	ŧ	181	8	25	14		52	206	14	272	0.65	0.49	4.53	3,96	88
Southern Region																		
Beaver	:	I	1	1	ł	ł	ł	I	1	1	1	1	I	:	1	ł	ł	1
Garfield	1	1	ı	I	1	:	ł	1	I	1	1	1	1	I	1	1	ł	ł
tron	1	ł	ı	ı	1	:	1	1	1	1	1	I	1	1	ł	I	I	I
Kane	1	1	1	ł	1	1	1	ł	1	I	ı	1	1	1	1	I	ł	ł
Millard	1	1	ł	ι	1	1	1	ł	ł	1	1	ł	1	1	1	1	I	I
Piute	:	ł	I	:	I	1	1	1	1	1	1	ı	ı	1	1	:	1	I
Sevier	1	1	1	1	ł	1	1	1	1	I	ı	I	ł	1	1	1	1	1
Washington	ł	:	1	1	I	1	1	I	ı	I	ļ	1	ı	I	ı	I	1	ł
Wayne	t	ł	ł	1	1	I	I	I	ŀ	I	1	1	1	I	1	1	T	ı
REGIONAL TOTALS	ł	1	I	1	I	1	1	I	I	I	1	t	ł	1	1	1	1	ı
Northeastern Region																		
Daggett	1	1	1	I	ł	ł	ł	ı	I	1	1	ı	ı	I	1	1	I	I
Duchesne	7	164.5	ę	61	12	•	•	-	-	m	12	~	22	0.13	0.07	4,00	4.00	67
UIntah	2	115	0	Þ	0	2	4	2	2	4	+	7	9	0.09	0.03	1	1.00	50
REGIONAL TOTALS	-	279.5	•	7	12	2	+	6	S	7	16	æ	32	0.11	0.06	4.00	2.29	57
Southeastern Region																		
Carbon	1	1	I	1	ł	1	I	ł	ı	ı	1	1	ı	I	1	I	1	1
Emery	1	1	1	1	I	:	1	1	I	1	:	1	1	I	ı	1	ł	1
Grand	1	ł	ı	ł	1	:	1	ł	1	1	1	1	ı	ł	1	I	1	1
San Juan	ł	ł	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
REGIONAL TOTALS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
STATE TOTALS	13	759.3	5	42	193	9	36	24	a	5	229	7	314	0.41	0.30	4 48	3.75	85

Table 3. Pheasant summer inventory, 1997.

,					Year							Average
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	0.81	0.63	0.19	0.32	0.21	0.56	0.34	0.72	0.23	0.31	0.17	
Cache	0.29	0.13	0.23	0.09	0.41	0.59	1.09	ł	ł	I	ł	
Davis	1.3	0.7	0.41	0.48	0.39	0.15	0.01	ł	1	ł	1	
Morgan	1	I	I	1	1	ł	I	1	1	I	1	
Rich	ł	1	1	I	I	ł	1	1	1	ł	ł	
Summit	:	ł	1	:	ł	I	I	ł	ł	1	ł	
Weber	ł	l	0.52	1.26	0.48	1.05	1	ł	I	ł	I	
REGIONAL TOTALS	0.71	0.4	0.3	0.42	0.35	0.58	0.24	0.72	0.23	0.31	0.17	0.42
Central Region												
Juab	1	0.38	0.5	0.14	ł	0.77	0.16	0.14	0.15	0.00	0.06	
Salt Lake	1.08	:	1	1.26	1.24	ł	0.31	1	1	1	1	
Sanpete	1.63	1.18	1.7	1.23	0.85	0.67	0.35	0.53	0.38	0.72	0.56	
Tooele	0.08	0.15	ł	0.17	0.55	0.14	1	0.27	0.00	0.07	1	
Utah	2.35	2	~	1.45	0.58	2.56	0.93	1.58	0.96	0.98	0.81	
Wasatch	I	ł	I	ł	ł	1	I	1	1	ł	I	
REGIONAL TOTALS	1.79	1.42	1.5	1.09	0.73	1.79	0.48	0.92	0.61	0.70	0.65	1.10
Southern Region												
Beaver	0.08	0.17	I	1	1	ł	1	1	I	I	1	
Garfield	I	ſ	ł	ł	ł	I	1	ł	1	1	I	
Iron	1	ł	l	ł	:	ł	ł	I	I	I	I	
Kane	I	1	I	1	I	1	I	1	1	ł	ł	
Millard	0.67	0.67	I	0.34	0.38	I	1.38	I	1	1	1	
Plute	1	I	I	1	I	1	1	1	1	1	I	
Sevier	1.95	1.3	I	ł	1	ł	ł	I	ł	ł	I	
Washington	0.47	0.22	0.06	ł	ł	I	ł	ł	I	ł	ł	
Wayne	1	I	1	I	I	I	I	1	1	ł	I	
REGIONAL TOTALS	1.44	0.78	0.06	0.34	0.38	1	1.38	1	ł	1	1	0.50
Northeastern Region					,							
Daggett	1	l	I	ł	I	I	I	1	1	1	1	
Duchesne	0.38	0.58	0.39	0.93	0.59	0.22	0.14	0.22	0.23	0.17	0.13	
Uintah	0.55	0.45	0.24	0.52	0.29	0.18	0.18	0.36	0.34	0.02	0.09	
REGIONAL TOTALS	0.45	0.54	0.32	0.71	0.51	0.17	0.16	0.28	0.28	0.11	0.11	0.35
Southeastern Region												
Carbon	1	ł	1	ł	I	ł	1	1	I	I	1	
Emery	0.72	1.06	-	0.61	0.28	0.56	0.39	ł	I	ł	I	
Grand	ł	ł	I	ł	ł	ł	1	I	I	1	I	
San Juan	1	;	I I	ł	ľ	1	1	1	I	ł	:	
REGIONAL TOTALS	0.72	1.06	ŧ.	0.61	0.28	0.56	0.39	I	1	1	I	0.66
STATE TOTALS	1.1	0.81	0.71	0.71	0.51	0.75	0.40	0.68	0.44	0.46	0.41	0.66

Table 5. Trend of young observed per mile during summer roadside pheasant counts, 1987-97. Region and	ao Bu	erved	ber m	le dur	ins Bu	nmer Vear	roadsid	ae pre	asant (counts	1987	-97. Average
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	0.62	0.39	0.16	0.27	0.14	0.41	0.28	0.52	0.15	0.22	0.12	
Cache	0.25	0.09	0.14	0.06	0.23	0.42	0.94	ł	I	1	ł	
Davis	0.98	0.52	0.22	0.31	0.26	0.04	1	1	ł	I	ł	
Morgan	ł	I	ł	ł	ł	ł	I	ł	ł	ł	ł	
Rich	:	1	ł	ł	I	I	ł	ł	1	1	I	
Summit	ł	ł	I	ł	ł	I	ł	ł	ł	1	ł	
Weber	ł	1	0.39	0.97	0,30	0.77	I	1	I	1	I	
REGIONAL TOTALS	0.55	0.28	0.20	0.32	0.21	0.41	0.19	0.52	0.15	0.22	0.12	0.31
Central Region												
Juab	ł	0,17	0.08	0.09	1	0.62	0.08	0.08	0.12	0.00	0.06	
Sait Lake	0.79	I	ł	0.97	0.93	ł	0.24	ł	ł	1	I	
Sanpete	1.23	0.96	1.30	0.91	0.67	0.53	0.28	0.34	0.32	0.50	0.44	
Tooele	0.07	0.07	ł	0.10	0.53	0.11	1	0.10	1	0.03	1	
Utah	1.81	1.57	1.00	1.15	0.49	1.97	0.69	1.12	0.72	0.71	0.60	
Wasatch	I	I	ł	I	1	I	ł	I	I	I	1	
REGIONAL TOTALS	1.37	1.11	1.10	0.87	0.59	1.38	0.37	0.63	0.47	0.50	0.49	0.84
Southern Region												1
Beaver	0.07	0.10	I	I	1	I	1	I	I	ł	1	
Garfield	1	1	ł	ľ	ł	1	I	ł	I	1	1	
Iron	0.00	ł	I	1	I	ł	ł	ł	I	ł	1	
Kane	ł	I	1	I	I	I	1	ł	ł	1	ł	
Millard	1.55	0.50	ł	0.31	0.28	I	1.18	1	1	ł	ł	
Plute	1	I	1	ł	ł	I	1	ł	1	i	ł	
Sevier	1.54	0.95	I	ł	ł	I	ł	ł	1	I	I	
Washington	0.22	0.16	ł	1	I	ł	I	I	ł	ł	ł	
Wayne	ł	ł	I	ł	ľ	I	I	ł	1	1	ł	
REGIONAL TOTALS	1.12	0.57	I	0.31	0.28	1	1.18	1	1	1	1	0.69
Northeastern Region												
Daggett	I	I	1	ł	ł	1	ł	ł	ł	1	ł	
Duchesne	0.25	0.32	0.20	0.58	0.42	0.08	0.02	0.10	0.15	0.11	0.07	
Uintah	0.40	0.30	0.14	0.35	0.21	0.10	0.13	0.25	0.25	0.00	0.03	
REGIONAL TOTALS	0.31	0.32	0.17	0.46	0.37	0.08	0.07	0.17	0.20	0.07	0.06	0.22
Southeastern Region												
Carbon	ł	1	1	1	1	I	I	1	I	1	ł	
Emery	0.59	0.86	1.00	0.43	0.22	0.43	0.29	1	ł	I	ł	
Grand	I	ł	ł	ł	1	ł	ł	1	ł	I	ł	
San Juan	ł	1	1	1	1	1	1	1	ł	I	1	
REGIONAL TOTALS	0.59	0.86	1.00	0.43	0.22	0.43	0.29	1	1	1	I	0.55
STATE TOTALS	0.79	0.63	0.62	0.48	0.38	0.55	0.30	0.46	0.33	0.32	0.30	0.49
20												

County1987Northern Region4.42Box Elder4.42Cache7.17Davis3.30Morgan-Rich-Summit-Veber-Veber-Juab-Satt Lake3.25Sanpete3.25Tooele4.00	1988 2.21 2.33 5.86 6.86 7 1 1 1 2.00	1989	1990	1991	1992	1993		1005	1000		
em Region Ider In NAL TOTALS I Region ite te	2.21 2.33 6.86 3.44 2.00						1994	フカロー	DARI	1997	1987-96
it It It It Region te te	2.21 6.86 6.86 7.44 2.00 2.00										
it it NAL TOTALS il Region ake ee	2.33 6.86 7.44 2.00 2.00	7.00	5.86	1.92	3.04	4.67	3.32	3.29	3.44	3.50	
it it NAL TOTALS il Region ake ee	6.86 3.44 2.00	2.60	5.50	1.57	3.38	6.00	ł	1	ł	1	
uit NAL TOTALS I Region ake	3.44	1.30	2.41	3.00	1.00	ł	ł	ł	1	1	
nit r ONAL TOTALS al Region ake ete	2.00	I	1	1	1	I	ł	1	I	ł	
nit r ONAL TOTALS al Region ake ete ete	3.44									ł	
nit r ONAL TOTALS al Region ake ete ete	2.00 3.44	1	1	:	1	ł	ł	1	ł	I	
r ONAL TOTALS al Region ake ete ete	3.44	I	ł	1	1	ł	ł	1	1	1	
ONAL TOTALS al Region .ake ete e	3.44	4.80	5.50	2.60	3.35	ł	ł	;	1	1	
al Region ake ete e	2.00	2.90	3.86	2.02	3.05	4.80	3.32	3.29	3.44	3.50	3.43
ake ete e	2.00										
ake ete e		0 23	4 00	I	8,00	1.00	1.50	4.00	0.00	I	
				66 F						ł	
						3					
	4.48	3.20	3.34	4.17	4.60	4.77	2.15	9.00	3.00	4.29	
	2.00	1	2.00	1	3.00	ł	0.60	ł	2.00	1	
Utah 4.18	3.94	3.80	4.31	6.41	4.22	3.76	2.95	3.85	3.08	3.74	
Wasatch	ł	I	1	:	1	I	I	1	I	I	
REGIONAL TOTALS 3 89	4 DO	4 7.0	3.92	5 27	4.28	3.92	2.53	4.51	3.04	3.96	4.01
on no											
Beaver 6.00	1.80	I	I	I	1	I	1	I	ł	1	
	ł	I	I	ł	1	ł	I	ł	ł	I	
Lon	ľ	I	I	1	ł	ł	ł	1	I	ł	
	{	I	I	I	1	ł	I	I	1	I	
~	2 64		15.00			7 32		ł	ļ	I	
		I			I		l	l	I	Ì	
	1	1	1	I	ł	ł	ł	ł	1	ł	
	3.77	I	I	1	1	:	ł	ł	1	I	
Washington 1.11	3.50	1	ł	1	I	ł	ł	1	I	1	
Wayne	ł	I	ł	I	1	I	ł	1	1	1	
REGIONAL TOTALS 4.32	3.61	ł	15.00	4.86	1	7.23	1	ı	I	1	7.00
Northeastern Region											
Daggett –	1	1	ł	I	ł	1	I	1	1	1	
Duchesne 3.40	2.36	1.68	2.60	3.81	0.86	1.00	3.40	3.67	3.60	4.00	
Uintah 3.65	3.67	2.33	3.30	3.33	1.70	3.33	6.60	6.00	I	1.00	
NAL TOTALS	2.64	2.01	2.82	3.73	1.02	2.40	5.00	4.83	3.00	2.29	3.10
Southeastern Region											
Carbon	1	ł	ł	ł	1	1	ł	1	I	1	
Emery 6.63	6.42	3.60	3.50	5.00	6.50	3.71	ł	t	ł	I	
Grand	ł	ł	ł	ł	ł	ł	ł	1	I	ł	
San Juan	1	1	ł	1	1	I	ł	I	1	ł	
LTO	6.42	3.60	3.50	5.00	6.50	3.71	1	1	1	1	5.05
5	3.68	2.95	3.70	3.81	3.40	4.31	2.84	4.44	3.08	3.75	3.63

Contraction of the second seco												SRD IDAU
country	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	75	64	100	100	83	74	89	68	57	89	100	
Cache	83	50	56	67	20	38	100		; :	; ;		
Davis	68	86	47	20	202	; c		ł	ł	ł		
Horan	•	5	F	\$	3	,			ł	l	ł	
moryan Di i	ł	ł	1	1	ł	1	1	ł	ł	:	1	
Rich	I	1	1	ł	1	1	1	:	ł	1	1	
Summit	1	ł	ł	1	I	I	:	ł	ł	I	1	
Weber	1	ł	100	80	09	85	I	I	;	I	ł	
REGIONAL TOTALS	82	67	76	74	69	67	60	89	25	0	100	PL.
Central Region	•	;							5	8	8	
han	ł	02	Ľ	100	ł	ł	100	50	100	c		
		8	5	3 5		ł	2	3	2	>	1	
Salt Lake	88	1	ł	67	68	:	100	1	I	:	ł	
Sanpete	85	88	<u>%</u>	78	83	6	85	59	<u>5</u>	2	1 00	
Tooele	100	20	1	ł	ł	ł	ł	40	I	100	I	
Utah	94	81	66	88	76	86	76	75	78	63	83	
Wasatch	; I	; 1	; 1	; 1	2 1	; I	; ;		2	} 1	3	
Prototial Total D									•	1	:	
REGIONAL TOTALS	LR	82	5	5	ŝ	2	\$Z	68	50	99	88	78
Southern Region												
Beaver	6	6	1	I	1	ł	I	1	I	1	ł	
Garfield	I	1	1	I	1	I	ł	I	1	1	1	
Iron	1	ł	ł	I	ł	1	1	I	I	I	1	
Kane	ł	ł	1	1	1	ł	ł	1	1	ł	1	
Millard	8 6	86	ł	100	100	1	85	I	ł	I	I	
Plute	I	ł	I	ł	ł	I	1	I	ı	1	ł	
Sevier -	86	69	1	I	:	1	I	1	1	1	ł	
Washington	22	20	I	1	I	I	1	1	1	ļ	1	
Wavne	1		(ł	I	1	1	ł	ł		1	
DEGIONAL TOTALS	â			400	100		DE L					e
	70		1	3	3	1	8		1		•	8
Normeastern Region												
Daygen	1 5	1 8	1 5	1 2	13	ľ	1	1 8	I 8	1 8	1	
Uucnesne	8	ה ת י ני	5 3	2 1	ŧ (I	2	2	5	3		
UINAN	5	2	8	R	001	ı	67	3	001	-	20	
REGIONAL TOTALS	94	46	59	67	86	I	60	80	67	67	57	70
Southeastern Region												
Carbon	1	1	1	ł	I	I	ł	1	ł	ł	1	
Emery	100	100	64	64	100	83	57	1	ı	ł	ł	
Grand	ł	ł	ł	1	ł	ł	ļ	1	:	ł	1	
San Juan	I	1	1	ł	I	I	I	I	:	1	1	
REGIONAL TOTALS	100	100	64	64	100	83	57	1	1	.		8
STATE TOTALS	87	72	64	76	79	85	85	69	76	89	85	76
						2)	•))	

I

Í

					Year							Average
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	6.00	4.80	8.00	5.40	3.20	4.00	5.40	6.78	6.67	4.00	ł	
Cache	4.80	4.00	4.00	4.50	5.20	4.67	6.00	;	1	ł	1	
Davis	A AN	6 60	4 50	4 20	6.00				1	1	1	
		222			2	ł	l				Ι.	
worgan	I	1	ł	I	I	I	1	1	1	:	:	
Rich	1	ł	I	1	ł	1	I	1	1	ł	ł	
Summit	I	I	1	1	1	1	1	1	1	ł	ł	
Weber	ł	5.50	4.30	1	4.33	3.94	I	ł	1	ł	1	
DEGIONAL TOTALS	£ 10	E AD	E AD	200	A 62		A KN	6 7 Q	<u>6</u> 67			£ 28
Central Region	2		1.0	2		3	0.00		10-0	2 4		
			00 7	00 7		000	000	00 6	007			
	1	9.00 00.0	4.00	7 .4	1	0.00		3.00	9.4	20.0	1	
Salt Lake	3.80	3.80	1	5.00	4.25	ł	7.00	ł	ł	ł	ł	
Sanpete	4.80	5.80	4.20	4.40	5.00	4.00	5.89	4.18	5,83	4.62	4.29	
l'onete	4.00	4.00	1	3.00	1	ł	ł	1.00	ł	2.00	ł	
Itah			5 10		K 13	K AA	2 7 2	112	08 1	5 L X	4 70	
ari 4- 1-		5 5	2	2012	2	Ş		ř		4		
wasatch	1	:	1	1	1	1	3	1	1	1	1	
REGIONAL TOTALS	4.80	5.00	4.40	4.70	4.92	5.35	4.32	4.06	5.03	4.59	4.53	4.72
Southern Region												
Beaver	6.00	4.50	1	1	1	I	1	I	1	1	ł	
Garfield	1	;	ł	ł	ł	ł	I	1	1	1	1	
ron	I	I	1	1	1	ł	1	ł	1	t	I	
Kane	I	ł	ł	ł	1	ł	1	1	1	ł	I	
Millard	5 30	4 90	1	3 80	5 40	ł	1	I	1	1	I	
	2		l	2		I	I	1	1	}	l	
Plute	•	1	I	I	I	I	I	ł	ł	1	ł	
Sevier	5.80	5.60	1	ł	ł	I	1	I	1	1	ł	
Washington	5.00	7.00	I	ł	ł	ł	ł	1	1	I	1	
Wayne	I	I	I	1	1	1	1	ł	I	1	ł	
REGIONAL TOTALS	5.60	5.30	1	3.80	5.40	1	1	1	1	1	1	5.03
Northeastern Region												
Daggett	I	1	1	ł	I	1	ł	ł	ł	ł	ł	
Duchesne	3.90	5.30	2.70	5.30	4.50	0.68	2.00	5.67	I	3.00	4.00	
lintah	A AD	5 30	4 20	A 90	3 33		4 75	6 RD	6 00	1	1	
DEGIONAL TOTALS				201	8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			80.0 26.0		100	4 00	4 21
Southeastern Perion		2.2	3	2		222	2222					
Contrologie	1	I	1	ł	ł	1	ł	1	1	ł	ł	
Emery	5 00	7 10	5 70	5 60	4.50	7 00	6 50	1	1	1	I	
Grand		1						I	ł	ł	1	
		}				ł						
					1		1	1		1	:	
REGIONAL TOTALS	2.00	7.10	5.70	5.60	4.50	7.00	6.50	1	1	1	I	5.91
STATE TOTALS	5,10	5.30	4.60	4.80	4.61	3.93	5.81	4.68	5.24	4.33	4.49	4.84

Table 9. Summary of pheasant hunter success and distribution of harvest and hunting pressure by region and county, 1997.

REGION AND	SANPLE	HINTER-DAYS	I THINK NO	BIRDS PER		/ ////////////////////////////////////
COUNTY	GIZE*	AFIELD	BAGGED	EUNTER-DAY	PRESSURE	BARVEST
NORTHERN REGION						
BOX ELDER	298	20,535	13 448	0.65	14 65	17.09
CACHE	259					
DAVIS	141	10,579			13.69 7.55	14.63
MORGAN	4			0.44	1.55	5.92
RICH	4	124			0.06	0.08 0.08
SUMMIT	3	166		0.50		
WEBER	3 202			0.13	0.12	0.03
		-		0.26		
REGIONAL TOTALS	911	64,330	33,360	0.52	45.91	42.39
CENTRAL REGION						
JUAB	82	4,863	2,826	0.58	3.47	3.59
SALT LAKE		0 00 0	997	0.49	1.45	
SANPETE	39 108	6,401	997 3,408	0.53	4.57	
TOOEDE	61	4,593	1,912		3 28	2 43
UTAH	404	21,970	14,237	0.65	3.28 15.68	-2.74-2 18 ∩9
WASATCH		187	145	0.78	0.13	0.18
REGIONAL TOTALS		40,053			28,58	29.90
SOUTHERN REGION			**********			
BEAVER	9	436	145	0.33	0.31	0.18
BEAVER GARFIELD	1	20	20	1.00		0.18
IRON	11	20 436	62	0.14		
KANE	0					
MILLARD	146	9,020	4 531	0.50	0.00	
PIUTE	3	103	4,JJ1 1 Λ5Δ	14.00	6.44	5.76
SEVIER	90	£ 401	1,404 7 670	14.00 0.57	0.07	1.85
WASHINGTON	90 22		3,013 706	0.5/	4.5/	
WAYNE	∠∠ 5		700	0.45	1.13	
		249 	20 	0.08	0.18	0.03
REGIONAL TOTALS	287	18,249	10,621	0.58	13.02	13.50
NORTHEASTERN REGION	_					
DAGGETT	1	83	124	1.50	0.06	0.16
DUCHESNE	. 79	5,092	3.325	0 65	3 63	4.23
UINTAH 	83 - .	6,048	4,406	0.73	4.32	5.60
REGIONAL TOTALS	163	-	7,856	0.70	8.01	9.98
SOUTHEASTERN REGION						•==+=
CARBON	33	2,348	1,163	0.50	1.68	1.48
EMERY	57	3,429	1,849	0.54	2.45	2.35
GRAND	3			0.54	2,4) N 10	∠.35 0.21
SAN JUAN	1	20		2.00		0.21
REGIONAL TOTALS		6,069	3,221	0.53	4.33	4.09
Unknown	5	207		0.50		
STATE TOTALS	2,159	140,135	78,693	0.56	100.00	100.00

*Total hunter trips from questionnaire returns.

Table 10. Summary of pheasants bagged per hunter-day by region and county, 1989-96.

Region and	<u></u>				Year			
County	1989	1990	1991	1992	1993	1994	1995	1996
Northern Region								
Box Elder	0.40	0.58	0.53	0.64	0.44	0.55	0.57	0.67
Cache	0.32	0.46	0.51	0.59	0.44	0.60	0.54	0.67
Davis	0.28	0.26	0.34	0.29	0.40	0.34	0.34	0.87
Morgan	0.40	(0.67)	(0.15)	(0.00)	0.00	1.06	0.24 0.14	0.24
Rich	(0.17)	0.00	0.00	(0.00)	0.33	1.00	0.14	0.50
Summit	(0.67)	0.00	(0.05)	(0.00)	0.00	0.00	0.50	
Weber	0.29	0.34	0.37	0.39	0.00			0.00
REGIONAL TOTALS		D.42	0.44	0.50		0.29 0.46	0.45	0.32
Central Region								
Juab	0.38	0.39	0.57	0.66	0.40	0.49	0.71	0.64
Salt Lake	0.32	0.51	0.32	0.39	0.40	0.49	0.71	0.64
Sanpete	0.65	0.57	0.52	0.60	0.44	0.55	0.30	0.65
Tooele	0.29	0.36	0.44	0.24	0.44	0.33	0.54	0.31
Utah	0.58	0.53	0.55	0.65	0.48	0.58	0.50	0.51
Wasatch	(1.33)	0.00	0.68	(0.30)	0.40	2.00		
REGIONAL TOTALS	0.44	0.51	.0.5 3	0.59	0.45	0.56	1.50 0.53	0.53
Southern Region							arthanistainean a' an ann a' Francaistain às an an saos	
Beaver	0.39	0.68	0.55	0.38	0.28	0.20	0.04	
Garfield	0.71	0.00	0.00	(0.00)		0.39	0.24	0.18
Iron	0.34	0.34	0.00	0.26	0.00	1.00	0.50	0.00
Kane	0.00	0.00	0.00	(0.00)	0.29 0.00	0.44	0.25	0.25
Millard	0.66	0.00	0.59	0.76	0.00	0.00	0.00	2.00
Piute	1.12	(0.50)	(0.10)	(1.00)	0.25	0.62	0.58	0.56
Sevier	0.45	0.42	0.36	0.49	0.25	0.63	0.50	0.91
Washington	0.33	0.38	0.21	0.49	0.32	0.41	0.27	0.39
Wayne	(0.46)		(0.50)	(1.14)		0.56	0.45	0.24
REGIONAL TOTALS		0.56		0.62	0.29	0.57 0.52	0.50 0.42	0.20 0.45
Northeastern Region								
Daggett	0.00	0.00	0.00	(0.00)	1.20	0.00	0.00	0.18
Duchesne	0.62	0.78	0.66	0.79	0.77	0.85	0.90	
Uintah	0.42	0.57	0.47	0.68	0.44	0.85	0.90	0.86
REGIGNAL TOTALS		0.69		0.74	0.67		0.45	0.65 0.76
Southeastern Region								•••
Carbon	0.39	0.30	0.22	0.48	0.57	0.30	0.35	0.59
Emery	0.44	0.44	0.50	0.53	0.52	0.62	0.35	0.59
Grand	(0.33)	(0.33)		(1.40)	0.52	0.62	0.41	
San Juan	(2.00)		(0.36)		0.07	0.01		0.50
REGIONAL TOTALS		0.3 9	0.39	<u>0 53</u>	10153	0.00	0.00 0.38	0.64 10.59
Unknown Counties	0.60	0.00	0.00	0.00	1.45	0.53	0.30	
						0.00	0.30	6.40
STATE TOTALS	0.46	0.49	0.48	0.57	0.45	0.67	0.50	0.5

()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, 1990-97.

Region and				Yea	ır			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	7.65	12.70	11.67	12.59	9.93	12.03	14.74	14.21
Cache	4.01	7.53	9.68	9.76	8.04	11.72	11.55	
Davis	4.80	3.96	4.38	2.92	2.82	3.89	3.30	
Morgan	0.15	(0.21)	(0.07)	(0.00)	0.00	0.44		
Rich	(0.03)	0.00	0.00	(0.00)	0.06	0.05	0.05	
Summit	(0.05)	0.00	0.02	(0.00)	0.00	0.00	0.08	
Weber	27.40	8.39	(8.03)	6.59	5.13	5.55	9.91	
RECIONAL TOTALS	24.09	32.79	33.85	31.85				43.80
Central Region								
Juab	1.69	2.09	2.47	3.21	2.16	3.05	3.74	2.34
Salt Lake	2.67	4.30	2.23	2.51	2.76	2.00	1.53	
Sanpete	10.76	7.92	5.94	5.70	4.32	5.81	2.32	
Tooele	2.03	2.19	1.72	1.24	0.93	1.10	1.67	
Utah	27.35	23.44	27.43	28.75	24.51	25.18	25.42	
Wasatch	(0.51)	0.00	0.50	(0.06)	0.06	0.05	0.74	
BGIONAL TOTALS	104-45-02	39.94			34.74		35.41	
outhern Region								
Beaver	0.36	0.73	0.69	0.31	0.48	0.74	0.41	0.25
Garfield	0.13	0.00	0.00	(0.00)		0.03	0.41	
Iron	0.62	0.50	0.55	0.21	0.39	0.03	0.05	
Kane	0.00	0.00	0.00	(0.00)		0.00	0.00	
Millard	7.99	8.71	7.62	8.04	7.71	7.72	6.03	5.96
Piute	0.74	(0.08)	(0.02)	(0.19)		0.13	0.05	
Sevier	5.75	3.94	3.62	3.83	4.53	3.79	2.10	
Washington	1.05	0.78	0.43	0.46	2.52	1.64	1.09	1.15
Wayne	(0.15)	0.00	(0.02)	(0.17)	0.06	0.20	0.11	0.07
				012219	115.75			4.12,7
lortheastern Region								
Daggett	0.00	0.00	0.00	(0.00)	0.18	0.00	0.00	0.16
Duchesne	5.86	5.71	5.73	5,97	8.49	4.40	8.11	4.33
Uintah	3.16	3.15	3.07	3.58	2.40	3.38	3.00	3.43
el (Marshand)			8779	9.55	11407		11.11	
outheastern Region								
Carbon	1.90	0.76	0.84	1.28	2.19	1.00	1.06	1.94
Emery	2.88	2.76	2.92	2.44	5.10	4.96	2.13	3.80
Grand	(0.08)	(0.16)	(0.24)	(0.14)	0.12	4.96	0.00	0.85
San Juan	(0.15)	0.00	(0.10)	0.06)	0.00	0.30	0.00	0.85
RGIONALA MATAIS	5.01							
nknown Counties	0.08	0.00	0.00	0.00	5.04	0.05	0.38	0.07
TATE TOTALS	100.00	100 00	100.00					
IVIAUS	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.

Table 12. Percentage distribution of pheasant hunting pressure by county, 1989-96.

Region and				Yea	r			
County	1989	1990	1991	1992	1993	1994	1995	199(
Northern Region								
Box Elder	8.77	10.67	10.66	11.21	10.00	11.49	10 00	10 01
Cache	5.68	7.98	9.18	9.40	7.55	10.33	12.92	17.81
Davis	7.85	7.32	6.31	5.78	6.01	6.06	10.74	13.47
Morgan	0.18	(0.15)		(0.07)	0.15	0.00	6.97	3.35
Rich	(0.07)		(0.02)	(0.00)	0.08	0.22	0.10	0.1
Summit	(0.04)		(0.23)	(0.00)	0.01	0.03	0.05 0.05	0.00
Weber	11.59	_12.13	10.47	9.64	11.34	10.23		0.00
REGIONAL TOTALS		38.29		36.11	35.14		11.06 41.90	6.75 41.48
Central Region								_
Juab	2.02	2.61	2.11	2.79	2.41	3.26	2 64	0 70
Salt Lake	3.84	4.11	3.41	3.71	2.35	1.91	2.64	2.79
Sanpete	7.55	6.81	4.87	5.44	2.35 4.41	5.24	2.55	2.13
Tooele	3.17	2.95	1.91	2.99	$\frac{4.41}{2.71}$		3.40	4.34
Utah	21.39	21.57	24.00	25.12	2.71 22.66	1.75 22.98	1.65	1.58
Wasatch	(0.18)	0.00	0.36	(0.12)	22.00		23.13	16.92
REGICIAL TOTALS		38.'QE	36.66	40.18	34 59	0.01 35.15	0.25 33.62	0.28
Southern Region	and a second		nan ana ang ang ang ang ang ang ang ang					
Beaver	0.42	0 50	0 61	· ·-				
Garfield	0.42	0.52	0.61	0.47	0.78	1.02	0.86	0.08
Iron		(0.08)	0.01	(0.00)	0.00	0.01	0.05	0.00
Kane	0.83	0.71	0.92	0.45	0.60	0.85	0.75	0.30
Millard	(0.01)	0.00	0.00	(0.02)	0.00	0.00	0.00	0.06
Piute	5.52	5.74	6.27	6.06	5.97	6.58	5.17	6.31
Sevier	0.30	(0.08)	(0.12)	(0.11)	0.11	0.11	0.05	0.28
Washington	5.79	4.58	4.86	4.48	6.25	4.89	3.89	3.24
_	1.47	1.02	1.01	0.43	1.21	1.56	1.20	0.53
Wayne GGIONAL NOTANS)(0.06)	(0.02)	(0.08)	0.09	0.19	0.11	0.03
	14.58	. 12.	13.32	12,10	15.01	15.20	12.09	10.81
Northeastern Region								
Daggett	(0.01)	(0.01)	0.00	(0.00)	0.07	0.00	0.00	0.06
Duchesne	4.27	3.55	4.22	4.33	4.95	2.73	4.48	7.00
Uintah	3.41	2.71	3.16	2.99	2.43	2.23	3.05	4.20
EGIONAL TOTALS	7.70	6.28	7. #8	7.32	7.45		7.53	
outheastern Region								
Carbon	1.76	1.54	2.21	1.51	1.73	1.75	1.50	2 10
Emery	3.05	2.99	2.80	2.63	4.37	4.21	2.60	2.16
Grand	0.04	(0.11)	(0.24)	(0.06)	0.09	4.21 0.31	0.12	4.31
San Juan	(0.04)	(0.01)	(0.13)	(0.04)	0.05	0.00	0.12	0.80
		457	the second second second	4.23			4.23	0.25
EGIONAL TOTALS							annan is a community and a second	alle in alle a set and
	0.74	0.06	0.00	0.05	1.56	0.04	0 63	0 00
EGIONAL TOTALS					1.56	0.04	0.63	0.88

()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, 1948-97.

.

Year	Hunters	Harvest	riunter-Days Afield	Pheasants Per Hunter-Day	Pheasants Per Hunt
1948	96,534	280,914			2.91
1949	88,369	263,340	189,453	1.39	2.98
950	92,724	249,428	235,309	1.06	2.69
951	76,576	246,575	171,233	1.44	3.22
952	78,773	246,559	185,383	1.33	3.13
953	82,595	245,307	176,480	1.39	2.97
954	82,370	260,289	201,774	1.29	3.16
955	78,793	196,195	178,359	1.10	2.49
956	77,826	206,239	182,512	1.13	2.65
957	83,025	228,319	170,387	1.34	2.75
958	88,290	3 09 ,015	220,725	1.40	3.50
959	86,268	243,276	202,730	1.21	2.82
960	81,976	232,812	177,719	1.31	2.84
961	83,493	238,439	243,305	0.98	2.86
962	86,336	262,448	209,921	1.25	3,04
963	87,647	297,87 3	198,582	1.50	3.40
964	88,242	225,775	196,314	1.15	2.56
965	77,409	211,876	186,215	1.14	2.74
966	78,721	249,814	209,082	1.19	3.17
967	85, 6 64	284,000	257,033	1.10	3.32
968	90,453	297 ,752	267,788	1.11	3.29
969	90,573	2 50 ,241	277,88 7	0.90	2.76
970	78,585	250,503	244,958	1.02	3.19
971	87,878	259,189	294,618	0.88	2.95
972	84,311	240,573	327,669	0.73	2.85
973	75,968	1 96 ,012	278,033	0.70	2.58
974	85,252	167,408	282,294	0.59	1.96
975	77, 56 6	143 ,783	234,615	0.61	1.85
976	74,029	151,476	214,023	0.71	2.05
977	67,195	148,168	191,142	0.78	2.21
978	83,800	220,398	2 57,3 05	0.86	2.63
979	87,462	216,700	266,245	0.81	2.48
980	84,868	228,442	249,770	0.91	2.69
981	83,408	234,217	265,381	0.88	2.81
982	85,368	208,437	280,624	0.74	2.44
983	77,847	220,074	265,731	0.83	2.83
984	76,840	192,1 9 0	258,169	0.74	2.50
985	69,88 9	146,807	233,328	0.63	2.10
986	59,987	114,389	207,346	0.55	1.91
987	57,118	119,236	199,470	0.60	2.09
988	54,514	97,658	184,180	0.53	1.79
989	50,382	80,769	177 ,364	0.46	1.60
990	47,025	78,944	161,634	0.49	1.68
991	42,813	72,612	1 50,096	0.48	1.70
992	41,640	85,803	150,244	0.57	2.06
993	39,640	63,336	141,399	0.45	1.60
994	36,705	68,698	129,872	0.53	1.87
995	38,391	71,202	142,755	0.50	1.85
996	41,854	83,987	157,755	0.53	2.01
997	37,622	78,693	140,135	0.56	2.09
otais					
1948-97)	3,690,614	9,766,190	10,424,346		_
verages					
1948-96)	74,551	197,704	209,882	0.89	2.56

í

			All Hunts				ŏ	Complete Hunts	ts		
Region and County	Total Parties	Total Hunters	Total Hours	Total Birds	Birds/ 100 Hr	Complete Hunts	Total Hunters	Total Hours	Total Birds	Birds/ 100 Hr	Birds/ Hunter
Northern Region											
Box Elder	1	ł	1	I	ł	I	ł	1	:	ł	I
Cache	1	ł	1	ł	1	ł	1	ł	1	1	ł
Davis	1	1	I	1	ł	1	ł	ł	1	ł	1
Morgan	1	1	1	1	1	I	ł	ł	:	ł	1
Rich	1	1	1	I	1	I	1	:	ł	ł	1
Summit		'				ł	ł	1	ł	1	l
	1	1	1	ł	ł	8	ł	I	l	!	1
Weber	I	1	1	1	1	1	1	1	1	:	:
REGIONAL TOTALS	I	1	ł	1	1	1	1	I	1	1	1
Central Region											
Juab	ł	ł	1	ł	1	1	1	:	I	I	1
Salt Lake	1	ł	1	ł	ł	I	:	ł	I	ł	1
Sanoete	1	ł	I	t	I	1	1	1	ł	1	I
Tooele	ł	ł	1	1	1	ł	I	1	1	1	1
Utah	ł	I	I	1	1	1	1	1	ł	;	:
Wasatch	I	ł	1	I	1	1	:	1	1	I	1
REGIONAL TOTALS	1		1				•	1		:	1
Southern Benjon											
oounern negion Beever	1	ł	I	1	ł		1	1	I	1	I
Corfield		1		1	i 1	1		1	I	3	I
	1]	}	I	ł	}	ł				
	1	I	1	1	I	5	ł	1	1	ł	1
Kane	I	1	I	I	I	I	1	1	ł	1	I
Millard	1	ł	L	1	1	1	1	I	1	I	1
Piute	1	I	1	I	1	I	ł	I	ł	1	1
Sevier	I	ł	I	I	I	I	ł	ł	I	:	I
Washington	I	I	1	ł	ł	I	ł	ŀ	1	I	I
Wayne	I	I	1	1	I	1	1	1	I	ł	ł
REGIONAL TOTALS	1	ł	1	1	:	1	1	1	I	1	1
Northeastern Region											
Daggett	ł	ł	I	1	:	I	ł	1	ł	I	I
Duchesne	I	ſ	ł	ł	ł	1	1	1	ł	ł	I
Uintah	ł	I	1	1	1	ł	1	1	I	1	I
REGIONAL TOTALS	1	1	1	1	1	1	1	I	1	1	1
Southeastern Region											
Carbon	I	ł	1	ł	ł	1	ł	1	I	I	1
Emery	72	140	301	5	17	72	140	301	51	17	0.36
Grand	I	ł	1	ł	1	1	ł	ł	1	I	1
San Juan	I	ł	I	I	1	I	:	I	ł	I	I
REGIONAL TOTALS	72	140	301	ž	17	61	140	304	51	17	0.36
				5	-		-		5	-	

•

		7	2		1	1	-	202	76	988L	27.	1997
Region and	Birds/	Birds/	Birds/	i/ Birds/ Birds/ Birds/ Birds/ Birds/ Birds/ Birds/	Birds/							
County	100 Hr	Hunter	100 Hr	Hunter	100 Hr	Hunter	100 Hr	Hunter	100 Hr		100 Hr	
Northern Region												
Box Elder	ł	0.30	1	0.23	ł	ł	ł	I	1	I	1	1
Cache	I	I	12	0.63	1	ł	60	0.27	1	:	:	;
Davis	I	I	ł	I	1	1		ļ	I	ł	}	
Morgan	1	ł	ł	1	ł	ł	1			l	l	1
			l	ł	l	ł	I	1	1	1	1	1
	ł	I	1	ł	1	ł	ł	1	I	1	1	1
Summit	1	1	ł	1	1	ł	ł	1	ł	1	ł	ł
Weber	1	1	1	ł	I	1	1	ł	1	1	ł	1
REGIONAL TOTALS	1	0.30	09	0.26		:	00	0.27	1	:	:	:
Central Region												
Juah Č	1	ł	1	ł	ł	I	1	ł				
		1	1	ł	I	I	I	ł	1	ł	1	!
Sait Lake	1	1	1 :	1	ł	:	1	:	1	1	1	ł
Sanpete	13	0.52	72	0.50	ł	ł	1	I	I	1	ł	:
Tooele	ł	1	14	0.63	13	0.29	1	:	ł	ł	I	ł
Utah	26	0.76	12	0.36	ł	1	9	0.32	0	0.00	ł	ł
Wasatch	I	1	ł	F	1	ł	I	1	ł	1	:	1
REGIONAL TOTALS	22	0.70	12	0.39	13	0.29	ę	0.32	6	000		1
Southern Region												
Beaver	I	1	1	1	ł	ł	ł	1	ł	1	I	1
Garfield	ł	1	ł	ł	ł	1	1	1	ł	1	ſ	ł
Iron	ı	I	I	I	1	ł	I	ł	1	:	J	1
Kane	1	I	1	I	1	ł	1	1	I	1		
Miłłard	1	I	I	1	1	1	1	1	ł	I	I	
Dinte	ł	1	ł						I		I	ł
	I	ł	P		1	I	1	I	ł	1	I	1
Sevier	ł	ł	-	0.38	I	ł	1	ł	ł	:	I	1
Washington	1	I	ł	ł	1	ł	1	1	ł	ł	I	ł
Wayne	1	1	1	1	:	ł	1	1	1	:	ł	ł
REGIONAL TOTALS	1	1	~	0.38	1	1		1	1	1	1	1
Northeastern Region												
Daggett	1	ł	I	I	ł	1	1	I	1	ł	ł	I
Duchesne	16	1.13	I	:	ł	1	G	0.20	1	ł	I	I
Uintah	50	0.50	:	1	1	ł	1	1	3	1	I	1
REGIONAL TOTALS	18	0.92	1	1	1	1	9	0.20	1	1		
Southeastern Region												
Carbon	ı	ł	ł	ł	I	ł	1	ſ	ł	1	ł	ł
Emery	34	0.51	22	0.29	15	0.33	28	0.55	17	0.38	17	0.36
Grand	I	1	42	0.40	1	ł	I	1	1	:	ł	1
San Juan	ł	ł	ł	ł	I	1	1	I	1	3	ł	I
REGIONAL TOTALS	34	0.51	24	0.31	15	0.33	28	0.55	11	0.38	17	0.36
STATE TOTALS	36	0.46	19	0.31	14	0.34	*	0 33	4	0.78		

.

Table 15. Pheasant hunter success trend as determined by field check, 1992-97.

30

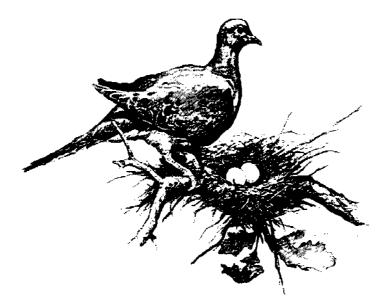
Ì

I

ł

Table 16. Trends of spring pheasant breeding territory counts, 1993-97.	eding t	territor	y coun	ts, 199:	3-97.	
		Territo	ria! Ma	les per	Territoria! Males per Square Mile	Mile
Region and			Year			Average
County	1993	1994	1995	1996	1997	1993-96
Northern Region						
Spring Creek-1	2.00	6.00		8.00		5.33
Spring Creek-2		7.00		13.00		10.00
BudPheips WMA	0.00	5.00		10.00		5.00
Mendon	3.00	3.00		4.00		3.33
Pertersboro	0.00	0.00		2.00		0.67
REGIONAL AVERAGE	1.25	4.20		7.40		4.87
Central Region						
North Utah County (Sections 26,27,30,31)	_		1.97	2.80	2.48	2.39
Central Utah County (Sections 4,18)			6.83	8.80	5.88	7.82
			0.83	0.00	0.67	0.42
REGIONAL AVERAGE			3.21	3.87	3.01	3.54
Southern Region						
Clear Lake WMA (Entire WMA)			00.7	16.00		11.50
Pahvant WMA (Entire WMA)			3.00	9.00		6.00
REGIONAL AVERAGE			5.00	12.50		8.75
Northeastern Region						
Daggett						
Ducresne Llinfah						
REGIONAL AVERAGE						
Southeastern Region						
Carbon						
Emery					·	
Grand San Juan						
STATE AVERAGE	1.25	4.20	4.11	7.92	3.01	5.72

f spring pheasant breeding territory counts. 195



The breeding density index increased 12 percent in 1997, and was 16 percent above average.

Aging of wings indicated the juvenile per 100 adult ratio decreased to 100 compared to 116 in 1996. Juvenile per 100 adult ratio was 2 percent below the long-term average.

Harvest statistics derived from the questionnaire indicated an increase in number of doves harvested compared to 1996.

Field bag checks indicated a slight increase in hunter success on opening day. Hunters who participated hunted less hours per day than the previous year, and spent less time afield per dove harvested.

A free band-tailed pigeon hunting permit was required in 1997 to obtain mailing addresses for a questionnaire. One hundred three hunters obtained permits and 58 went afield. Ninety-eight pigeons were harveste The majority of the harvest occurred in Iron County.



MOURNING DOVE Call Count Survey

Results of the 1997 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</u> <u>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 1997 survey compared to 1996 and the 10-year (1987-96) average:

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Average doves heard per route	11.07	+12	+16
Average doves seen per route	6.87	-19	-33

Coo count data (doves heard per route) indicated increased breeding activity in late May compared to 1996, and was 16 percent above the long-term average of doves heard per route.

Harvest

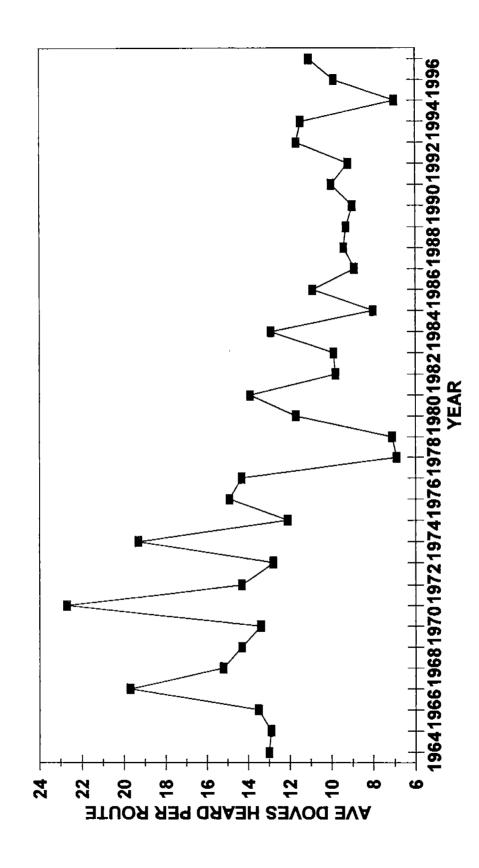
Hunter Questionnaire

Information obtained from the hunter questionnaire for 1997 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 1997 compared to 1996 and the previous 46-year average:

		Percent change from	Percent change from
	<u>1997</u>	<u>1996</u>	Average
Mourning dove hunters	22,594	-3	+3
Mourning doves harvested	208,331	+4	+2
Hunter-days afield	84,638	-1	+21
Mourning doves per hunter-day	2.46	+5	-24
Mourning doves per hunter	9.3	+8	+3

Hunter success increased slightly from 1996. Total harvest increased 4 percent compared to 1996. Numbers of dove hunters decreased 3 percent and hunter-days afield decreased 1 percent. Doves per hunter increased 8 percent from 1996.

Figure 1. Mourning dove breeding density index trend, 1964-97.





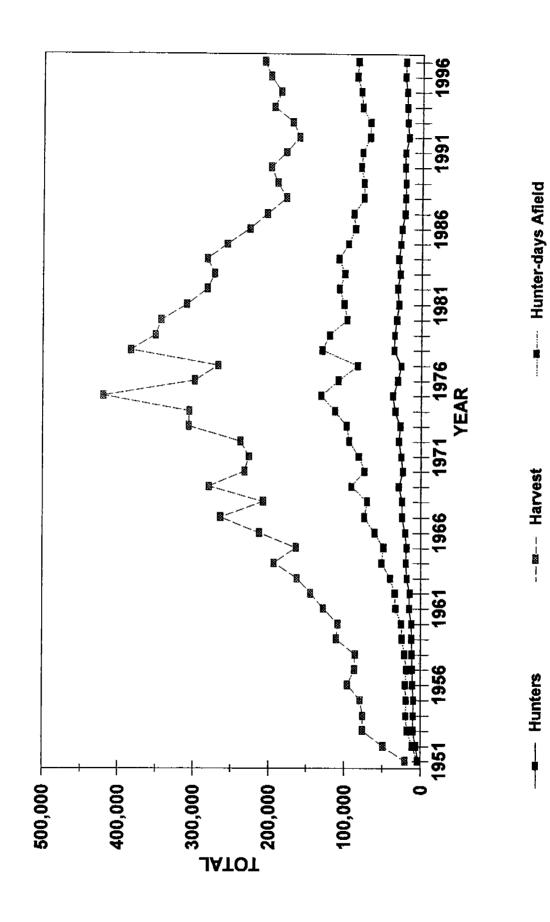
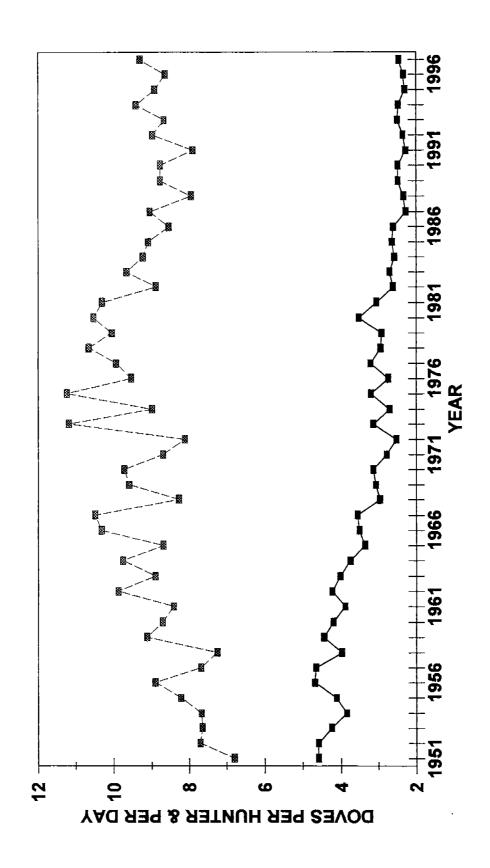


Figure 3. Statewide trends of mourning dove hunter success rates, 1951-97.





Field Bag Checks

A summary of field bag check data for 1997 is shown in Table 8. Hunter success trends determined via this method are shown in Table 9. Results of the 1997 survey compared to 1996 and the 10-year average (1987-96) follow:

	<u>1997</u>	Percent change from 1996	Percent change from <u>Average</u>
Total hunters checked Total hours hunted	528	-29	-44
	1,719	-44	-52
Doves per hunter (complete hunts)	1.87	+61	-39
Doves bagged per 100 hours (complete hunts)	57	+104	-28
Average hours per hunter-day			
(complete hunts)	3.26	-22	-16
Hours hunted per dove bagged (complete hunts)	2.01	-44	+55

Field bag checks indicated an opening day increase in hunter success. The total number of hunters checked was down 29 percent from 1996. Dove hunters spent less time afield per hunter-day than in 1996, and less time was spent per dove bagged.

Age Composition of the Harvest

A summary of the age composition of harvested mourning doves from 1987 through 1997 is contained in Table 10. Hatching dates for immature doves harvested in Utah since 1988 are shown in Table 11. Following is a comparison of data collected in 1997 compared to 1996 and the 10-year average (1987-1996):

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Sample size	1,652	+6	-12
Immatures/100 adults	100	-14	-2
Percent hatched August	3	+45.9	0
Percent hatched July	25	+86.4	+6
Percent hatched before July 25	13.6		-27

Sample size increased 6 percent in 1997. The 100 immatures per 100 adults in the harvest was down 14 percent from the previous year and is 2 percent below the long-term average.

Region and	Route	Total Doves	Total Doves
County	Number		Seen / Route
Northern Region	Humber	neard / Noute	Seen / Noule
Box Elder	R1500	3	3
Summit	R1020	3	1
REGIONAL TOTALS		6	4
Central Region			
Juab	R2830	22	28
REGIONAL TOTALS		22	28
Southern Region			
Beaver	R3820	12	7
Garfield	R1090	0	0
iron	R4001	37	0
Millard	R3640	7	6
Sevier-Sanpete	R0370	6	21
Washington	R4311	4	2
Wayne-Sevier	R0660	3	0
REGIONAL TOTALS		69	36
Northeastern Region			
Duchesne	R0080	3	0
Uintah	R0220	3	0
REGIONAL TOTALS		6	0
Southeastern Region			
Emery	R0540	30	7
San Juan	R1171	19	18
San Juan	R1451	14	10
REGIONAL TOTALS		63	35
STATE TOTALS		166	103
STATE AVERAGES		11.07	6.87
DEDOENT OUANOE			
PERCENT CHANGE		40	20
(from previous year)		12	-20

Table 1. Summary of the mourning dove call-count survey for 1997.

Region and Route	Route						Numbe	r of Do	Number of Doves Heard Per Route	ard Pe	r Route							
County	Number	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region																		
Box Elder	R1500	•0	1	-	0	0	-	2	0	0	-	-	4	ŝ	~	4	o	ო
Summit	R1020	4	5	ł	٦	4	5	S	5	3	3	3	4	4	4	1	1	3
REGIONAL TOTALS		12	ŝ	-	-	4	g	J.O.	ŝ	'n	4	4	8	6	11	OI.	÷	9
Central Region																		
Juab	R2830	22	6	25	19	20	19	16	23	13	36	38	15	42	41	23	41	22
REGIONAL TOTALS		22	σ	25	19	20	19	16	23	13	36	38	15	42	41	23	41	22
Southern Region																		
Beaver	R3820	~	13	ო	9	9	4	17	13	4	6	ł	ო	Ţ	16	ŝ	-	12
Garfield	R1090	ŋ	2	ო	15	ი	-	-	o	16	0	0	ი	2	0	0	0	0
Iron	R4001	36	21	19	31	4	26	23	20	10	42	15	26	49	4	Ø	4	37
Millard	R3640	10	6	ŝ	4	2	2	ო	ŝ	4	K)	æ	~	~	0	ŝ	16	~
Sevier-Sanpete	R0370	0	0	ę	10	4	4	ო	en	2	9	2	ĥ	2	9	n	ŝ	9
Washington	R4311	Q	0	4	**	0	9	~	+	9	12	14	5	16	20	14	-	4
Wayne-Sevier	R0660	14	4	I	17	ę	7	0	3	7	2	0	3	9	0	4	15	3
REGIONAL TOTALS		82	49	47	89	59	45	5	45	59	49	39	59	83	92	40	42	69
Northeastern Region																		ļ
Duchesne	R0080	13	~	¢	-	80	ო	4	80	13	÷	~	e	7	I	2	9	e
Uintah	R0220	19	-	6	10	5	20	12	9	0	2	3	2	3	7	5	9	3
REGIONAL TOTALS		32	80	6	11	13	23	16	14	13	13	10	5	5	7	7	12	9
Southeastern Region																		
Emery	R0540	22	~	1	9	ო	9	.	15	80	2	ŝ	æ	4	13	1 8	~	8
San Juan	R1171	38	26	8	22	25	09	31	37	43	સ	38	34	2	ø	72	4 3	19
San Juan	R1451	0	24	ю	2	3	0	-	2	-	0	ŝ	0	-	0	0	2	4
REGIONAL TOTALS		60	57	46	74	30	70	43	54	52	33	46	51	36	21	90	52	63
STATE TOTALS		208	128	128	194	126	163	134	141	6	135	137	138	175	172	105	148	166
																	-	ĺ
STATE AVERAGES		13.87	8.53	8.53	12.93	8.40	10.87	8.93	9.40	9.33	00.6	9.79	9.20	11.67	11.47	7.00	9.87	11.07
PERCENT CHANGE		81	87	-	23	35	60	87	10	5	4	-	٩	27	Ģ	39	41	12
		2	2	•	Ş	2	ì	2	,		•		,	i	ı	;	:	ŗ

Table 3. Summary of mourning dove hunter success and distribution of harvest and hunting pressure by region and county, 1997.

.

EGION AND		HUNTER-DAYS		BIRDS PER	* 07	* 07
COURTY	at BIZE	AFIRED	BAGGED	BUNTER-DAY	PRESSURE	HARVEST
ORTHERN REGION						
BOX ELDER	151	9,644	26,937	2.79	11.39	12.93
CACHE	80	5,508	9,685	1.76	6.51	4.65
DAVIS	27	1,642	2,702	1.65	1.94	4.65
MORGAN	11	581	1,496	2.57	0.69	0.72
RICH	5	290	581	2.00	0.34	0.72
SUMMIT	4	872	415	0.48	1.03	0.20
WEBER	61	4,551	7,108	1.56	5.38	
EGIONAL TOTALS	339	23,092	48,928	2.12	27.28	3.41 23.49
ENTRAL REGION						
JUAB	113	6,983	21,388	3 06	0 75	10 07
SALT LAKE	38	3,575	∠1,388 5,965	3.06	8.25	10.27
SANPETE	35	2,203	4,739	1.67	4.22	2.86
TOOELE	108	5,903	4,739	2.15	2.60	2.27
UTAH	213	14,632	31,427	3.40	6.97	9.65
WASATCH	5	270	51,427	2.15	17.29	15.09
EGIONAL TOTALS	512	33,568	84,284	2.46 2.51	0.32 39.66	$0.32 \\ 40.46$
OUTHERN REGION						
BEAVER	15	935	3,824	4 00		
GARFIELD	3	374		4.09	1.11	1.84
IRON	32	1,579	457	1.22	0.44	0.22
KANE	4	394	7,420 914	4.70	1.87	3.56
MILLARD	106	7,316	25,150	2.32	0.47	0.44
PIUTE	100	20	25,150	3.44 5.00	8.64	12.07
SEVIER	43	5,549	11,452		0.02	0.05
WASHINGTON	38	3,803	-	2.06	6.56	5.50
WAYNE	4	311	9,332 789	2.45	4.49	4.48
EGIONAL TOTALS	246	20,286	59,446	2.53 2.93	0.37 23.97	0.38 28.53
ORTHEASTERN REGION						
DAGGETT	1	20	187	9.00	0 00	0 00
DUCHESNE	21	872	2,203		0.02	0.09
UINTAH	23	2,369	-	2.52	1.03	1.06
EGIONAL TOTALS	45	3,263	5,196	2.19	2.80	2.49
STORES TOTES	40	5,205	7,586	2.32	3.86	3.64
DUTHEASTERN REGION CARBON	1.4	010				
EMERY	14	810	1,496	1.85	0.96	0.72
	20	2,057	3,180	1.55	2.43	1.53
GRAND SAN JUAN	3	332	332	1.00	0.39	0.16
GIONAL TOTALS	9 46	685 3,886	2,556 7,565	3.73 1.95	0.81 4.59	1.23 3.63
Unknown	5	540	519	0.96	0.64	0.25
	-	0-20		0.70	0.04	0.20
TATE TOTALS	1,193	84,638	208,331			

* Total hunter trips from questionnaire returns.

- ----

Table 4. Summary of mourning doves bagged per hunter-day by region and county, 1990-97

legion and					_Year		_	
County	1990	1991	1992	1993	1994	1995	1996	1991
Northern Region								
Box Elder	2.73	2.27	2.56	2.49	2.63	2.91	2.69	2.7
Cache	1.67	1.97	2.16	1.88	2.54	1.78	1.94	1.7
Davis	1.53	1.77	1.19	1.39	1.26	2.09	1.37	1.6
Morgan	1.73	2.31	2.47	0.88	2.93	3.65	2.45	2.5
Rich	1.95	3.45	2.27	1.18	1.67	0.83	1.54	2.0
Summit	7.00	1.78	3.25	0.25	2.61	5.00	2.00	0.48
Weber	1.48	1.30	1.79	1.50	1.57	2.07	1.74	1.5
EGIONAL TOTALS			1.99			2.36		2.1
Central Region								
Juab	3.70	3.33	3.34	4.25	2.72	3.35	3.53	3.00
Salt Lake	2.37	2.02	2.14	1.88	2.79	1.95	2.36	1.67
Sanpete	3.06	2.69	2.06	3.21	1.78	2.27	2.50	2.1
Tooele	1.90	2.29	2.14	2.06	2.45	2.02	2.48	3.4
Utah	2.05	1.89	1.77	2.12	2.43	1.72	2.40 1.94	2.1
Wasatch	2.42	2.11	2.37	1.83	2.15	2.21	1.70	2.4
BGIONAL FOTALS	2.41	2.25				2.21		2.5
outhour Decise	and the stands						an an thail	nie – Produkte Germanie Nie – Reference of Stration
outhern Region								
Beaver	1.71	3.32	3.41	1.52	3.72	2.73	3.23	4.09
Garfield	2.34	2.40	1.67	3.50	1.47	3.18	1.00	1.22
Iron	4.38	2.80	3.96	2.42	3.60	3.91	3.20	4.70
Kane	1.00	3.03	4.05	4.09	3.00	10.00	2.87	2.32
Millard	4.42	3.13	3.30	4.40	3.20	3.44	3.25	3.44
Piute	1.45	2.50	1.33	2.83	4.50	2.59	3.30	5.00
Sevier	2.18	2.09	2.42	2.10	2.36	1.21	1.76	2.06
Washington	2.81	3.63	2.54	2.74	2.28	3.06	3.41	2.45
Wayne	0.61	0.75	2.86	1.00	2.11 2.94	1.44	2.00	
RETEMAL POPALS	3.20	2.87.	<u>43109</u>	2.98	2.94	2:84	2.79	2.91
ortheastern Region								
Daggett	2.00	1.00	3.25	7.00	0.00	0.00	1.00	9.00
Duchesne	1.85			2.52		2.62		
<u>llintah</u>	3.17	1.06	2.06	2.12	3,35	2.01	1.96	2.19
BCIONAL POTAL	2.46	1.64	2.15	× 2.32	3.25	2.08	2,15	2.32
outheastern Regior								
Carbon		0.25			2.82	0.96	1.93	1.85
Emery		1.68				2.10	2.11	1.55
Grand		1.13				0.47	2.08	1.00
San Juan	1.69	3.56	2.61			4.48	4.17	. 73
EGIONAL POTALS	2_67	.2.14	2.46	3.27	2.19	2.15	2.09	1.95
	0 00	0 00	0 00	0.40	1 50			
aknown counties	0.00	0.00	0.00	2.40	1.50	2.28	1.58	0.96

Table 5. Percentage distribution of mourning dove harvest by region and county, 1990-97.

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	9.95	9.60	9.09	11.18	12.10	13.61	11.96	12.93
Cache	3.34	5.54	7.20	4.85	5.07	5.40	4.53	4.65
Davis	2.57	2.39	1.15	0.79	1.41	2.40	2.55	1.30
Morgan	0.59	0.65	0.81	0.17	1.14	0.76	1.19	0.72
Rich	0.38	0.97	0.65	0.22	0.36	0.05	0.35	0.28
Summit	0.51	0.16	0.86	0.02	0.42	0.47	0.05	0.20
Weber	3.54		4.59	3.14	4.42.	6_80	8.95	
REGIONAL TOTALS	20.88	21.71	24.35	20.37	24.93	29.50	29.60	23.49
Central Region								
Juab	9.45	8.78	6.74	11.16	5.76	7.70	4.86	10.27
Salt Lake	5.71	5.00	5.15	2.59	5.24	2.34	4.23	2.86
Sanpete	3.23	4.84	3.57	4.10	3.41	3.11	3.31	2.27
Tooele	6.37	8.56	6.66	8.02	8.90	7.34	8.65	9.65
Utah	12.83	16.37	15.16	13.26	16.32	14.76	19.70	15.09
Wasatch	1.08	0.94	0.99	1.22	0.93	1.11	1.28	0.32,
REGIONAL TOTALS	38.67	44.50	38.27	40.36	40.64	-36.36	42.02	40.46
Southern Region								
Beaver	1.29	1.94	2.10	1.81	4.02	2.73	1.28	1.84
Garfield	0.92	0.35	0.05	0.39	0.25	0.73	0.11	0.22
Iron	6.20	3.07	5.57	2.37	2.79	5.83	2.96	3.56
Kane	0.07	0.91	0.98	1.00	0.08	0.21	0.41	0.44
Millard	13.35	9.29	11.80	13.31	40.87	8.25	6.05	12.07
Piute	0.57	0.68	0.31	0.38	0.41	0.46	0.27	0.05
Sevier	4.05	4.80	5.66	3.72	4.60	2.38	5.56	5.50
Washington	4.99	5.16	1.50	5.54	2.83	3.35	1.98	4.48
Wayne	0.11	0.03	0.22	0,16	0.34	0.14	0.14	0.38
REGIONAL TOPALS	31.57	26.22	28.19	28.68	26.19	24_08	18,75	28.53
Northeastern Region								
Daggett	0.06	0.01	0.14	0.08	0.00	0.00	0.22	0.09
Duchesne	1.62	2.61	1.21	1.74	0.94	1.59	1.98	1.06
Uintah	2.46	1_21	2.01	1.96	1.87	3.66	1.36	2.49
REGIONAL TOTALS	4.15	3.82	3.36	3.77	2.81	5.25	3.55	3.64
Southeastern Region								
Carbon	0.41	1.24	1.16	1.07	0.59	1.24	2.22	0.72
Emery	2.85	1.16	3.64	2.28	2.80	1.55	2.82	1.53
Grand	0.96	0.18	0.00	0.34	0.08	0.09	0.35	0.16
San Juan	0.51	1.18	1,03	0.92.	1.91	1.17		1.23
REGIONAL TOTALS	4 74	3.74	5.84	4.62	5.38	4.06	5.56	3.63
Unknown counties	0.00	0.00	0.00	2.21	0.05	0.76	0.52	0.25

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, 1990-97.

legion and					<u>Year</u>			
ounty	1990	1991	1992	1993	1994	1995	1996	199
Northern Region								
Box Elder	9.07	9.63	8.33	11.24	11.41	10.82	11.96	11.3
Cache	4.96	6.43	7.84	6.47		7.01	4.53	6.5
Davis	4.19	3.08	2.27	1.42		2.65	2.55	1.9
Morgan	0.85	0.64	0.77	0.47		0.48	1.19	0.6
Rich	0.49	0.64	0.67	0.47	0.54	0.14	0.35	0.3
Summit	0.18	0.20	0.62	0.22	0.40	0.22	0.05	1.0
Weber		4.19	6_03	5.24	6.98	7.59	8.95	5.3
EGIONAL TOTALS	25.67	24.83	26.53	25.54	28.05	28.91	29.60	27.2
entral Region								
Juab	6.35	6.01	4.74	6.58	5.26	5.30	4.86	8.2
Salt Lake	5.99	5.64	5.65	3.46	4.65	2.77	4.23	4.2
Sanpete	2.62	4.10	4.07	3.21		3.16	3.31	2.6
Tooele	8.33	8.54	7.32	9.76	9.13	8.41	8.65	6.9
Utah	15.52	19.75	20.08	15.70	16.69	19.78	19.70	17.2
Wasatch	1.11	1.02	0.98	1.67	1.07	1.16	1.28	0.3
ESIONAL TOTALS	39.91	45.06	42.85	40.38	-41.53	~40.57	42.02	39.6
outhern Region								
Beaver	1.88	1.33	1.44	2.98	2.68	2.31	1.28	1.1
Garfield	0.98	0.33	0.08	0.28	0.42	0.53	0.11	0.4
Iron	3.52	2.51	3.30	2.45	1.92	3.44	2.96	1.8
Kane	0.18	0.69	0.57	0.61	0.07	0.05	0.41	0.4
Millard	7.50	6,77	8.40	7.59	8.43	5.54	6.05	8.6
Piute	0.98	0.62	0.54	0.33	0.22	0.41	0.27	0.0
Sevier	4.63	5.24	5.49	4.43	4.83	4.53	5.56	6.5
Washington	4.42	3.24	1.39	5.08	3.09	2.53	1.98	4.4
Wayne	0.46	0.09	0.18	0.39	0.40	0.22	0.14	0.3
BELLERAL AVERL	24:54	20.51	21.40	. 24-15		19.56	18.75	23.9
lortheastern Regi	on							
Daggett	0.08	0.02	0.10	0.03	0.00	0.22	0.22	0.0
Duchesne	2.18	2.68	1.26	1.73	0.76	1.40	1.98	1.0
<u>Uintah</u>	<u> </u>	2-60	2.29	2.31	1.39	4.22	1.36	2.8
BCICHAL DOTALS	4.19	5.30	3.66	4.07		5.83	3.55	- 3.8
outheastern Reg	ion							
Carbon	0.87	1.31	1.80	0.95	1.52	1.59	2.22	0.9
Emery	3.47	1.58	2.76	1.53	3.38	1.71	2.82	2.4
Grand	0.59	0.36	0.08	0.39	0.13	0.46	0.35	0.39
San Juan EGIONAL TOTALS	0.75 5.68	0.75	0.93	0.67	1.07	0.60	0.16 5.56	0.8
aknown counties	0.00	0.00	0.00	2.31	0.09			4.5
	0.00	0.00	0.00	2.21	0.09	0.77	0.52	0.64
TATE TOTALS	100.00	100 00	100 00	100 00	100 00	100 00	100 00	

Table 7. Statewide summary of mourning dove harvest statistics, 1951-97.

	Total	Total			
Year	Hunters	Harvest		Doves Per Hunter-Day	
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
1956	10,744	95,72 9	20,411	4.69	8.91
1957*	11,298	86,769	18,620	4.66	7.68
1958	11,853	85,934	21,591	3.98	7.25
1959	12,142	110,856	24,911	4.45	9.13
1960	12,440	108,477	25,766	4.21	8.72
1961	15,192	128,001	33,434	3.89	8.42
1962	14,663	144,826	34,281	4.23	9.89
1963	18,258	162,769	40,490	4.02	8.91
1964	19,829	193,538	51,671	3.75	9.76
1965	18,710	164,087	48,835	3.36	8.69
1966	20,594	212,696	60,608	3.51	10.33
1967	25,161	263,949	74,171	3.56	10.49
1968	25,105	207,922	70,186	2.96	8.28
1969	29,131	279,311	90,965	3.07	9.59
1970	23,908	232,469	73,984	3.14	9.72
1971	26,064	226,645	81,271	2.79	8.70
1972	29,341	238,354	94,046	2.53	8.12
1973	27,435	307,062	97,788	3.14	11.19
1974	34,021	306,076	112,967	2.71	9.00
1975	37,378	420,308	131,312	3.20	11.24
1976	31,293	298,505	108,780	2.74	9.54
1977	26,905	267,487	83,218	3.21	9.94
1978	35,985	383,696	130,173	2.95	10.66
1978	34,903	351,161	120,459	2.93	10.06
1979	32,627	343,851	97,644	3.52	10.54
1981	30,060	310,068	101,728	3.05	10.34
1982**		282,188	107,728	2.62	8.89
	31,756				
1983	28,258	272,979	100,568	2.71	9.66
1984	30,573	282,307	108,793	2.59	9.23
1985	28,183	256,045	96,507	2.65	9.09
1986	26,583	226,985	87,084	2.61	8.54
1987***	22,553	204,030	89,378	2.28	9.05
1988	22,457	178,469	76,219	2.34	7.95
1989	21,696	190,328	76,372	2.49	8.77
1990	22,700	199,007	80,076	2.49	8.77
1991	22,632	178,853	78,405	2.28	7.90
1992	18,021	161,902	68,937	2.35	8.98
1993	19,725	170,834	68,143	2.51	8.66
1994	20,743	195,089	78,594	2.48	9.41
1995	20,896	186,336	80,688	2.31	8.92
1996	23,180	200,167	85,613	2.34	8.64
1997	22,594	208,331	84,638	2.46	9.3
Totals	- • · ·	·			
(1951-97)	1,036,458	9,625,363	3,289,095		
Averages			AA AAA	0.00	0.00
(1951-96) * Estimated	22,041	204,718	69,662	3.23	9.03
* Estimated.					

* Estimated.

**Bag limit increased to 15.

***Bag limit reduced to 10.

Table 8. Mourning dove fi	g dove field bag check	sck summary	ary, 1997.	-			
			All Hunts				
Region and	Total	Total	Total	Total	Birds/	Complete	Total

I

			All Hunts		1		ပိ	Complete Hunts			
Region and	Total	Total	Total	Total	Birds/	Complete	Total	Total	Total	Birds/	Birds/
County	Parties	Hunters	Hours		100 Hr	Hunts	Hunters	Hours		100 Hr Hunter	Hunter
Northern Region					1		c.				
Box Elder	ł	;	I	I	1	ł	ł	I	ł	ł	ł
Cache	1	1	ł	ł	ł	ł	ł	ł	ł	ł	ł
Davis	1	ł	I	I	ł	ł	1	1	1	ł	1
Morgan	ł	ł	ł	I	ł	ł	1	1	ł	ł	ł
Rich	1	ł	ł	I	1	ı	ł	ł	ł	ł	1
Summit	I	ł	I.	1	1	I	;	ł	I	1	ł
Weber	ł	ł	1	ł	1	I	;	1	1	ł	1
	1	:	:	1	1	1	;	1	1		1
Central Region											
Juab	ł	ł	:	1	1	;	ł	ł	ł	ţ	ł
Salt Lake	1	ł	I	ł	ł	ł	ł	1	1	1	I
Sanpete	ł	ł	I	ł	ł	J	ł	ł	1	ł	;
Tooele	ł	ł	I	I	I	ł	ı	ł	1	ł	ł
Utah	I	I	ł	I	ł	I	:	I	1	1	1
Wasatch	ł	ł	1	ł	1	ł	ł	ł	I	I	1
REGIONAL TOTALS	ł	:	:	1	1	1	:	1	1	1	1
Southern Region											
Beaver	1	I	ł	1	I	ł	I	Ĩ	I	ł	I
Garfield	ļ	ł	1	1	I	1	1	I	I	I	I
Iron	I	1	ł	1	I	1	1	I	1	ł	ł
Kane	I	í	ł	1	ł	ł	ł	I	I	1	ł
Millard	1	1	1	ł	I	ł	I	I	ı	ł	1
Piute	I	1	ł	ł	I	1	ł	I	1	ł	3
Sevier	1	I	I	1	I	ł	1	ł	ł	I	1
Washington	ł	1	ł	I	ı	1	1	1	ł	ł	ł
Wayne	ł	1	1	1	1	1	1	1	1	I	I
REGIONAL TOTALS	1	1	ł	I	I	ł	ł	I	I	ł	ł
Northeastern Region											
Daggett	1	I	ł	I	1	I	ł	1	I	ł	1
Duchesne	ł	1	ł	I	I	1	1	1	I	ł	ł
Uintah	1	1	Ŧ	ł	1	1	I	I	1	ł	1
REGIONAL TOTALS	ł	ł	1	1	1	1	1	1	I	ł	I
Southeastern Region											
Carbon	ł	I	ł	1	I	ł	I	1	ł	ł	1
Emery	ł	I	I	I	ł	I	I	I	ł	I	I
Grand	ł	I	I	1	ł	ł	ĩ	I	ł	ł	1
San Juan	σ	25	99	102	156	9	14	39	81	210	5.79
REGIONAL TOTALS	6	25	99	102	156	G	14	38.5	81	210	5.79
LEHI CHECK STATION	9	20	264	78	30	30	59	195	6	3 J	1.03
NEPHI CHECK STATION	131	353	1.072	1.097	102	84	234	732	845	115	3.61
THIOKOL CHECK STATION	68	221	753	715	95	68	221	753	715	95	3.24
STATE TOTALS	269	699	2.155	1.992	92	209	528	1.719	987	15	1.87
							~=>			5	

	JAR		1993		TRAL		CAR		1996		1997	
Region and	Birds/	Birds/	Birds/	Birds/	Birds/	Blrds/	Bìrds/	Birds/	Birds/	Birds/	Birds/	Birds/
County	100 Hr	Hunter	100 Hr	Hunter	100 Hr	Hunter	100 Hr	Hunter	100 Hr	Hunter	100 Hr	Hunter
Northern Region												
Box Elder	I	ł	ł	ł	1	1	1	ł	ł	ł	ł	:
Cache	ł	I	ł	ł	ł	ł	ł	ł	ł	ļ	ł	ł
Davis	1	I	ł	I	ł	ł	;	1	1	ł	1	1
lotan	ł	ł	;	1	ł	ł	ł	ł	ł	ł		ł
MUIYali Birt	I	5	1	I	ł	I	ł	I	i	ł	I	1
KICN	ł	1	ł	ł	ł	1	I	I	ł	1	1	I
Summit	ł	1	1	ł	ł	ł	ł	ł	ł	ł	ł	1
Weber	}	1	1	1	ł	1	1	1	1	1	1	2
	1	1	1	ł		1	1	1	1	1	1	:
Central Parion												
			140	5 76								
Juan 2 2 2 2	I	1	2	07.0	I	ł	ł	:	I	ł	1	1
Salt Lake	ł	1	:	:	ł	ł	1	1	ł	1	f	ł
Sanpete	I	1	1	ł	ł	ł	1	1	ł	I	;	ł
Tooele	ł	ł	ł	ł	1	ł	ł	ł	1	1	ł	ł
Utah	1	ł	117	4.42	ł	ł	1	1	I	ł	ł	I
Wasatch	ł	ł	ł	ł	1	}	1	1	1	ł	ł	1
REGIONAL TOTALS	1	I	115	4.64	:		1	1	1		1	1
Southern Region												
Beaver	ł	ı	ł	ł	ł	ł	1	1	I	1	ł	I
Gartield	I	ł	ł	1	ł	1	ł	ł	I	I	1	1
Iron	l	I	1	I	ł	I	1	1	ł	I	1	1
Kano.		ļ		1	ļ	ł	ł	1	1	1		
Natie Milland	I	I	ł	ł	I	ł	ľ	I	I	ł	ł	I
	I	I	ł	I	ł	I	I	I	I	1	ł	I
	ł	ł	1	ł	ł	ł	ł	1	1	I	ł	1
Sevier	ł	J	1	I	I	ł	I	1	1	I	ł	1
Washington	1	1	I	ł	ł	ł	I	I	I	I	ł	1
Wayne	1	3	I	ł	ł	1	1	1	1	I	ł	1
REGIONAL TOTALS	1	1	1	1	ł	1	1	1	ł	ł	1	1
Northeastern Region												-
Daggett	ł	ł	ł	1	ł	I	I	ł	1	ł	ł	1
Duchesne	I	1	ł	1	I	1	ł	ł	1	ı	ł	:
Uintah	1	١	1	1	ł	1	1	ł	1	I	ł	1
	Ŧ	ł	1	ł	1	I	1	ł	I	I	I	1
Southeastern Region												
Carbon	219	7.08	280	7.00	1	ł	I	ł	I	ł	I	I
Emery	265	4.07	198	7.92	327	6.13	121	2.71	1	1	ł	ł
Grand	1	1	200	1.00	1	1	ł	ł	I	1	ł	1
San Juan	ł	I	ł	1	154	4.05	4 4	2.57	ł	ł	210	5.79
REGIONAL TOTALS	235	5.46	202	6.93	193	4.64	127	2.67	1	1	210	5.79
LEHI CHECK STATION	22	2.73	130	4.43	88	3.09	4	1.58	30	1.19	31	1.03
NEPHI CHECK STATION	84	4.01	110	5.26	127	3.79	114	4.13	66	2.48	115	3.61
THIOKOL CHECK STATIO	127	3.64	141	5.21	1	1	95	4.66	56	2.70	95	3.24
STATE TOTALS	60	2.85	112	4.36	83	2.88	56	2.22	28	1.16	54	1.76
	3		4		3		2			2		

Table 9. Mourning dove hunter success trend as determined by field had checks. 1991-97.

47

(1) (1) <th></th> <th>1/ 100A(n) 435 7</th> <th></th> <th></th> <th></th> <th></th> <th>1992</th> <th>2661</th> <th></th> <th>188</th> <th>•</th> <th>2661</th> <th>966)</th> <th></th> <th>1997</th> <th>1987-96 Auntral</th> <th>Averac</th>		1/ 100A(n) 435 7					1992	2661		188	•	2661	966)		1997	1987-96 Auntral	Averac
m Region 17 17 17 18 170 17 17 17 17		-	I/ 100A(n)	(u) (u)	l/ 100A(n)	E	(/ 100A(n)	I/ 100A(n)	2	1/ 100A(n)		V 100A(n)	I/ 100A(n)	(u)	1/ 100A(n)		DOAIn
All 128 770 1 All 170TALS 17 1 1 All 170TALS 132 787 1 1 MAL 107ALS 132 787 1 1 1 MAL 132 787 1 1 1 1 1 MAL 107ALS 132 787 1		-															
325 17 It 17 MAL TOTALS 132 Mal Totals 133 Mal Totals 142 <td></td> <td>11</td> <td>239</td> <td>487</td> <td>•</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>ı</td> <td>ı</td> <td>1</td> <td>1</td> <td>1</td> <td>:</td> <td></td> <td></td>		11	239	487	•	1	1	1	1	ı	ı	1	1	1	:		
MAL MAL FOTALS MAL FOTALS MAL FOTALS MAL FOTALS FOTALS MAL MAL FOTALS 132 337 1 1 1 MAL MAL FOTALS 132 337 1 1 1 1 MAL MAL FOTALS 1 1 1 1 1 1 1 1 Mal Mal Foto 1		1	t		1	1	I	1	1	1	I	t	1		1		
It It It MAL TOTALS 132 787 It MAL TOTALS 112 132 787 MAL TOTALS 11 11 It Mat Totals 11 11 It If 11 11 It If 11 11 It If 11 11 It If 11 11 It			I	1	1	I	1	1	1	I	I	1	1	I	1		
It It NAL TOTALS NAL TOTALS NAL TOTALS 132 Region 132 AL TOTALS 132 In Region 1		ı			1	1	ı	י ו	1	I	I	ı		. 1	1		
It Nat Tot AL Nat Tot AL Nat Tot ALS Nat Tot ALS Nat Tot ALS Nat Tot ALS Nat Tot ALS Nat Tot ALS In Region In I I I I I I I I I I I I I I I I I I		ı			1	1		1	I	1	1	. 1			I		
Nal TotALS 132 787 1 Region 132 787 1 AL TOTALS 132 787 1 AL TOTALS 1 1 1 1 MAL TOTALS 1 1 1 1 MAL TOTALS 1 1 1 1 MAL TOTALS 1 1 1 1 Mat TotALS 1 1 1 1 1 Mat TotALS 1 1 1 1 1 1 Mat TotALS 1 1 1 1 1 1 1 Mat TotALS 1 1 1 1 1 1 1 1 1 Mat TotALS 1				:		1	I		I	1	I	I			1		
MAL TOTALS 132 787		1		1 1		1			1	I	t	ı			1		
Mal. Torrais 132 787 - Region Als 132 787 - Mal. Torrais 132 787 - 						1			1	1	1	I			1		
AL TOTALS MAL TOTALS M		435		187	-	ı		1	1	I	1	1	1	1	1	151	25
		ı	1			I	I	1	1	1	ı	1					
		I	;							l	I	I	I	1	I		
		ı	I		•	I	3	1	1	1	1	ı	ı	1	I		
MAL TOTALS MAL TOTALS		1	1	1	1	1	ı	1	1	I	1	I	1	1	1		
		ı	1	•	ı	I			ł	ı	8	÷			I		
Mal Torrais Mal Torrais m Region gton gton gton h t t t t t t t t t t t t t t t t t t t		I	1		1	1			1	I					1		
MAL TOTALS MAL TOTALS In Region gton gton I I I I I I I I I I I I I I I I I I I		1	I	1		1	;	1							l		
			1			1			1	•	r ;	1			1		
		1	I			•		1	1	1	8	÷	1	1		83	÷
	1	1	1	•	1	1		1	ľ	I	I	1	1	1	1		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ו ו	ı	1	1) 1	1	ı	1	ľ	1	ι	t	1	1	ľ		
ton 1	1	1	I	,	1	3	ı	1	I	1	1	ļ	I		ſ		
	1	1	ļ				t,	1	l	I	I	ı	ſ	1	I		
gton	1	I	I		ſ	1	I	1 1	1	1	1	13		I ,	1		
gton 1 1 1 1 1	1	I	1			I			I	1	4	47			I		
	1	I	1		1	ı			1	1	ı	I			1		
	1	1	1			ı			ł	1	ı	ı			ı		
	1	1	1			ı			ı	1	I	I			1		
	1	Ľ	1			ı			I	ı	ı	ı			1		
1	1	I	ſ	1	•	•	1	1	1	1	141	ł	1	1	I	141	4
Northeastern Region																	
E J J	1	1	1			ı			1	I	t	I			I		
Duchesne	1	1	1			t			1	1	1	ſ			1		
	1	1	ı			1			1	ı	1	1			I		
1		1	1	1	1	.	1	I	1	1	1	I			1	1	1
Southeastern Region																	
t 1 t						8				t	1	1					
Emery 80 187 70 18	187 85	37	- 62	143 8		169				1	I	I					
1 1						I				1	1						
San Juan 63 275 31 42	42 56					12				8	99	176					
462 61			93			è	ľ			8	: 2	176	ļ		ł	46	247
LEHI CHECK STATION 130 1.283 114 741		5								148	101	153				447	
N 180 1.004 ******						5			Ľ		5	1					ΞĮ
1		3		24 74	170	88		000 10			5	21	88		8		22
477 1648 460 4	44	111	-		ſ	22				S,	ž	2		İ.	ľ	113	ŝ

Table 11. Percent of harvest by hatching date of immature moui	rcent of h	arvest by h	atching c	Jate of	immatu	Jre mot	irning d	loves li	i Utah,	rning doves in Utah, 1988-97.	,											
Date Hatched	Age (Days)	٩	1988	1989	1990	1991	1992	EST BY 1993	1994	HARVEST BY HATCH DATE 1992 1993 1994 1995 1	986	1997	1988	1989	1990	1991	54MPLE 512E		1994 1	1995 1	1996 1	1997
Aug 3	73	none	1	41.3	52.2	ı	37.8	1	53.7	56.1	I	45.9	ł	2	254	ł	118	ł	22	37	ł	17
Jul 31	32	-	ł	30.1	26.7	ł	32.1	I	19.5	21.2	I	21.6	1	59	130	ł	100	;	80	14	1	00
Jut 25	38	2	I	18,4	13.1	ł	10.9	ł	9.8	10.6	1	18.9	1	36	5	ł	व्र	ł	4	7	ł	2
Jul 18	45		I	6.8	4.3	ł	9.3	1	7.3	6.1	1	5.4	ł	13	21	ł	29	:	ę	4	1	3
Jul 9	54	4	1	2.6	2.3	1	4.5	1	7.3	4.5	I	8.1	1	10	ŧ	ł	14	1	3	m	ł	ę
Jun 30	63	10	I	0.5	0.6	I	4.2	ł	0.0	1.5	ł	0.0	ł	-	ę	I	13	I	0	**	1	0
Jun 21	72	9	1	0.0	0,4	I	1.0	I	2.4	0.0	ł	0.0	ł	0	2	I	ы	:		0	ł	0
Jun 8	85	7	1	0.5	ł	ł	0.3	ł	0,0	0.0	1	0.0	1	-	1	ł	-	ł	0	0	1	0
May 22	102	œ	I	0.0	;	ł	I	ł	0.0	0.0	I	0.0	ł	0	ł	1	ł	1	0	0	:	0
Apr 27	127	5	I	0.0	0.4	1	I	1	0.0	0.0	ł	0.0	1	0	7	I	1	ı	0	0	I	0
Apr 21	133	9	ł	0.0	0.0	ł	ł	I	0.0	0.0	t	0.0	ł	0	ł	1	I	I	0	•	I	0
			1	100	1 0	1	<u>9</u>	1	10	8		100	1	196	487		312		4	99		37
P = Last primary molted.	mary moli	ted.																				

Last primary molted.

BAND-TAILED PIGEON

Harvest

Results of the 1997 band-tailed pigeon harvest is in Table 13. Free hunting permits were required in 1997 and a questionnaire was sent to participants. Only 103 hunters obtained the band-tailed pigeon permit in 1997. Harvest trends since 1970 are shown in Figures 4 & 5 and Table 14.

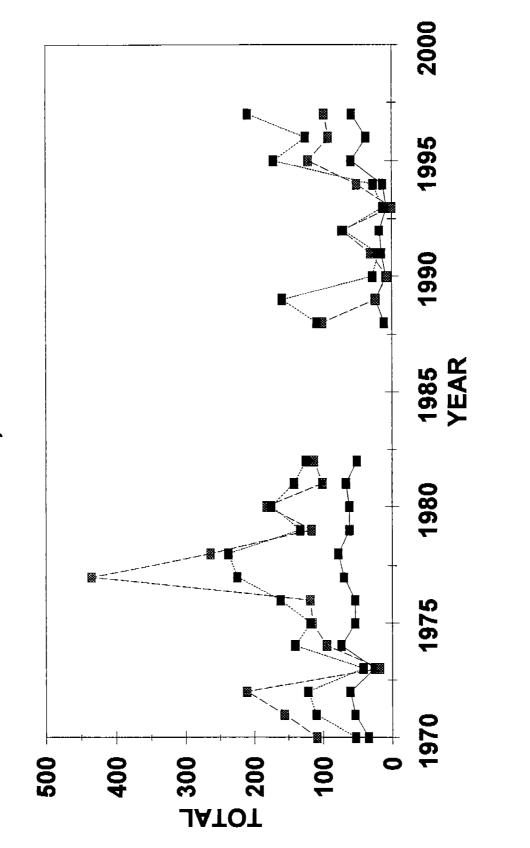
	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Band-tailed pigeon hunters afield	58.	+57	+36
Band-tailed pigeon harvest	98	+7	-15
Hunter-days afield	209	+67	+83
Pigeons per hunter-day	0.47	, –11	-52
Pigeons per hunter	1.69	-32	-38

Band-tailed pigeon hunters afield increased from 1996, and was 36 percent above the long-term average.

Ninety-eight pigeons were reported harvested in 1997.

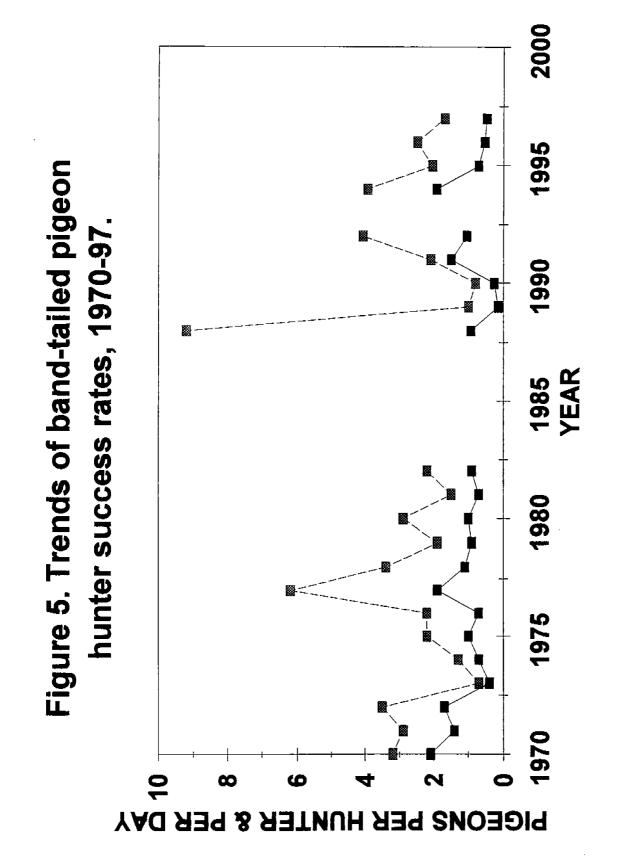
ſ

Figure 4. Band-tailed pigeon harvest statistics, 1970-97.



—■— Total Hunters ____ Total Harvest

Hunter-Days Afield



-- Pigeons/Hunter-Day -- Pigeons/Hunter

	Hunters	Hunter-Days	Harvest	Pigeons/	Pigeons/	Percent	Percent	Pigeons	Pigeons
Area Hunted	Afield	Afield		Hunter-Day	Hunter	Pressure*	Harvest	Crippled	
Beaver County	10	34	-	0.03	0.20	16	1.02		
Blue Mountain-Elk Ridge	2	6	•	0.00	0.00	4	0.00		
Iron County	13	30	40	1.33	3.08	14	40.82		
Kane County	e	KO	ŝ	1.00	1.67	7	5.10		
LaSal Mountain	14	41	31	0.76	2.21	20	31.63		
Washington County	11	31	21	0.68	1.91	15	21.43		
Other	10	59	0	0.00	0.00	28	0.00		
Totals	58	209	98	0.47	1.69	100	100	G	1.717

.

-

7

l

Projection Factor = 1.25609756098 103 PERMITS SOLD 82 QUESTIONNAIRES RETURNED 80 QUESTIONNAIRE RETURN RATE (PERCENT)

Table 14.	Statewide summary of	-	band-tailed pigeon harvest statistics, 1970-97.	s, 1970-97.	
Year	Total Hunters	Total Harvest	Hunter-Days Afield	Pigeons/Hunter-Day	Pigeons/Hunter
1970	34	109	53	2.10	3.20
1971	54	156	110	1.40	2.90
1972	61	211	122	1.70	3.50
1973	25	18	42	0.40	0.70
1974	74	95	141	0.70	1.30
1975	54	116	119	1.00	2.20
1976	54	119	162	0.70	2.20
1977	70	435	225	1.90	6.20
1978	78	264	238	1.10	3.40
1979	62	117	133	0.90	1.90
1980	62	182	175	1.00	2.90
1981	67	101	142	0.70	1.50
1982	51	113	125	0.00	2.20
1983	ł	ł	I	I	ł
1984	:	ł	:	:	ł
1985	1	1	:	I	ł
1986	:	ł	I	:	:
1987	1	ł	:	ł	:
1988	11	101	109	0.93	9.20
1989	23	24	159	0.15	1.00
1990	σ	7	28	0.26	0.80
1991	15	31	20	1.50	2.10
1992	18	73	20	1.05	4.06
1993	Ø	0	13	ł	ł
1994	13	51	27	1.92	3.92
1995	59	121	171	0.71	2.05
1996	37	92	125	0.53	2.49
1997	58	98	209	0.47	1.69
Totals		I			
(1970-97)	997	2,634	2,718	:	
Averages					
(1970-96)	43	115	114	0.98	7.11
, I					

54

е÷Э

Aerial Survey

Results of the annual aerial survey for 1997 are shown in Table 1 of this section. Following are the survey results for 1997 compared to 1996.

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Coveys flushed	18	+50	
Total chukars observed	295	+186	
Chukars per square mile	36.88	+132	
Chukars per survey hour	252.14	+186	

This population survey technique was implemented in 1996. The survey allows for rapid counting of localized chukar populations versus ground brood count surveys. Chukars observed per square mile increased 132 percent over 1996. Chukars observed per survey hour increased 186 percent over 1996.

Harvest

Hunter Questionnaire

Results of the hunter questionnaire survey for 1997 are shown in Table 2. Long-term trends of chukars bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 3-5 and total statewide harvest statistics in Table 6 and Figures 1 and 2. Following is a comparison of 1997 harvest statistics to 1996 and the previous 39-year average:

		Percent change	Percent
	1997	from <u>1996</u>	from Average
Chukar hunters	9,665	-5	-28
Chukars harvested	23,840	-10	-36
Hunter-days afield	34,711	-6	-15
Chukars per hunter-day	0.69	-4	-21
Chukars per hunter	2.47	-5	-8

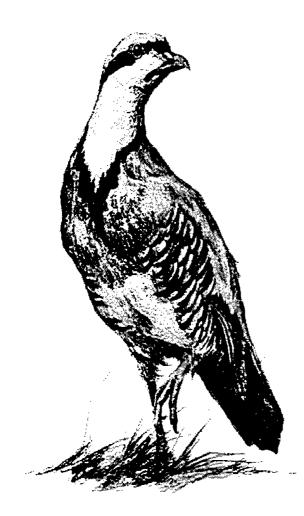
Chukar hunters and hunter effort decreased from 1996. Chukars per hunter-day decreased slightly from 1996, and remains 21 percent below the long-term average. Total harvest decreased 10 percent in 1997.

Field Bag Checks

A summary of field bag check data for 1997 is shown in Table 7. The hunter success trend determined via this method are shown in Table 8. Data for the 1997 season compared to 1996 and the 10-year (1987-96) average follow:

		Percent change from	Percent change from
	<u>1997</u>	<u>1996</u>	<u>Average</u>
Total hunters checked	51		+2
Total hours hunted	191.5		+1
Chukars per hunter (complete hunts)	0.57		-67
Chukars bagged per 100 hours (complete hunts)	15		-68
Average hours per hunter-day			
(complete hunts)	3.75		-5
Hours hunted per chukar bagged (complete hunts)	7.37		+165

Random chukar field bag check data was collected in Tooele County only.



Early spring precipitation (January - April), critical to successful chukar production, was normal.

Results of the aerial survey indicated that brood production was above 1996.

Harvest statistics from the general mail questionnaire reflected a decreased harvest of 10 percent from 1996. Hunter success (chukars per hunter-day) decreased 4 percent from 1996 while time afield increased 6 percent.



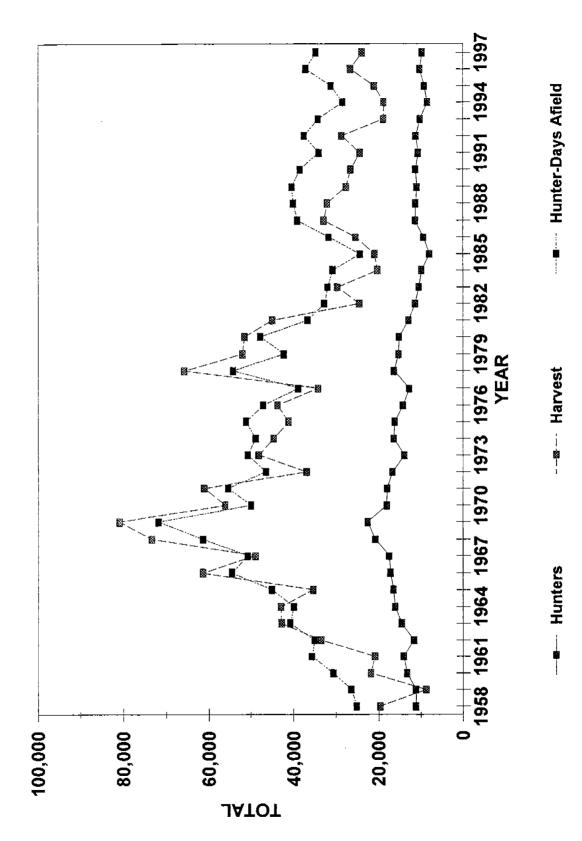


Figure 2. Statewide trends of chukar hunter success rates, 1958-97.

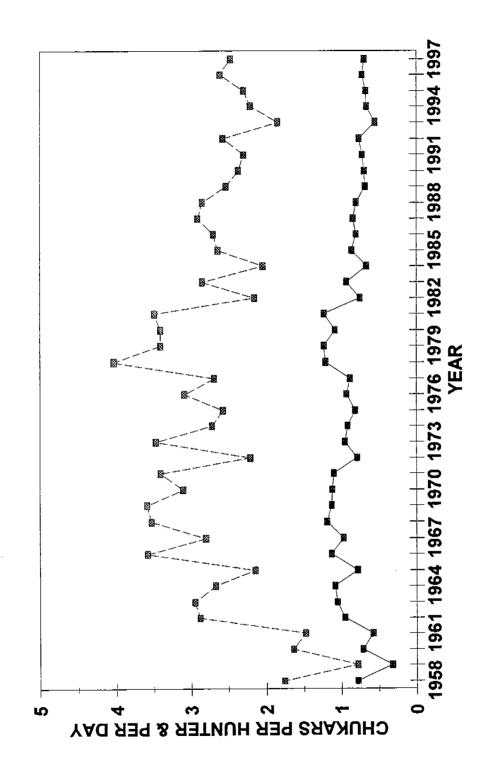


Figure 3. Jan-Apr precipitation vs chukar production, 1968-97.

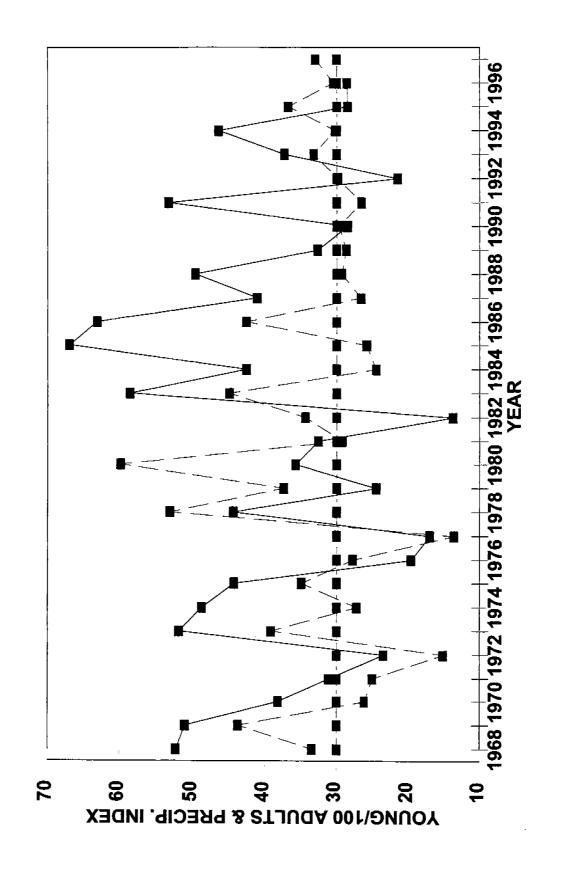




Table 1. Chukar aerial survey, 1996-97.

Year	Area Date	Coveys Flushed	Total Chukars Observed	Square Miles Surveyed	Chukars/Square Mile	Elasped Time (hours)	Chukars/Survey Hour
1996	Northeast Cedar Mountains (Tooele County) 08/21/96	12	6 12 103 6.49 15.87 1.17 88.03	6.49	15.87	1.17	88.03
1997	Northeast Cedar Mountains (Tooele County) 08/20/97	18	296	8.00	36,88	1.17	252.14
Totals							
(1996-97)		30	398	14,49	1	2.34	t
Averages							
(1996-97)		15	199	7.25	26.37	1.17	170.09

I

Ł

ĺ

Table 2. Summary of chukar hunter success and distribution of harvest and hunting pressure by region and county, 1997.

REGION AND	SAMPLE	HUNTER-DAYS	BIRDS	BIRDS PER	* 07	* OF
COUNTY AS STORES	SIZE*	AFIELD	BAGGED	HUNTER-DAY	PRESSURE	HARVEST
NORTHERN REGION						
BOX ELDER	125	8,729	6,776	0.78	25.15	28.42
CACHE	20	1,247	561	0.45	3.59	2.35
DAVIS	9	249	124	0.50	0.72	0.52
MORGAN	11	644	893	1.39	1.86	3.75
RICH		103	0	0.00	0.30	
SUMMIT	3	187	20	0.11	0.54	0.00
WEBER	÷ 7	207	20 62	0.30		0.09
REGIONAL TOTALS	178	11,369	8,438	0.30	0.60 32.76	0.26 35.40
CENTRAL REGION						
JUAB	31	1,725	1,912	1.11	4.97	8.02
SALT LAKE	7	249	62	0.25	0.72	0.26
SANPETE	18	561	748	1.33	1.62	
TOOELE	91	6,776	4,551	0.67	19.52	3.14 19.09
UTAH	86	5,258	3,554	0.68	15.15	
WASATCH	4	187	145	0.78	0.54	14.91 0.61
REGIONAL TOTALS	237	14,757	10,974	0.74	42.52	46.03
SOUTHERN REGION						
BEAVER	3	103	166	1.60	0.30	0.70
GARFIELD	3	145	83	0.57	0.42	0.35
IRON	2	41	Ő	0.00	0.42	0.00
KANE	0	0	õ	0.00	0.00	0.00
MILLARD	30	1,870	1,101	0.59	5.39	4.62
PIUTE	3	83	207	2.50	0.24	0.87
SEVIER	22	2,494	1,060	0.43	7.19	4.45
WASHINGTON	0	,	2,000	0.00	0.00	0.00
WAYNE	5	124	20	0.17	0.36	0.00
REGIONAL TOTALS	68	4,863	2,639	0.54	14.01	11.07
NORTHEASTERN REGION						
DAGGETT	0	0	0	0.00	0.00	0.00
DUCHESNE	16	1,434	748	0.52	4.13	3.14
UINTAH	13	748	415	0.56	2.16	1.74
REGIONAL TOTALS	29	2,182	1,163	0.53	6.29	4.88
SOUTHEASTERN REGION						
CARBON	4	145	41	0.29	0.42	0.17
EMERY	14	893	540	0.60	2.57	2.27
GRAND	7	498	41	0.08	1.44	0.17
SAN JUAN	0	0	0	0.00	0.00	0.00
REGIONAL TOTALS	25	1,538	623	0.41	4.43	2.62
UNKNOWN	0	0	0	0.00	0.00	0.00
STATE TOTALS	537	34,711	23,840	0.69	100.00	100.00

*Total hunter trips from questionnaire returns

Î

Table 3. Summary of chukars bagged per hunter-day by region and county, 1990-97.

_

Region and				Year				
County	1990	1991	1992	1993	1994	1995	1996	1997
20 2 .03	2330	2772	2334	1995	1004	1995	1550	1997
Northern Region								
Box Elder	0.89	0.78	0.86	0.37	0.72	1.12	0.88	0.78
Cache	0.51	0.37	0.89	0.28	0.03	0.26	0.57	0.45
Davis	0.79	0.76	0.38	0.25	0.21	0.17	1.58	0.50
Morgan	0.71	0.54	0.41	0.20	1.19	0.00	2.80	1.39
Rich	1.67	0.32	0.33	0.17	0.00	0.00	1.33	0.00
Summit	2.14	0.14	0.33	0.36	0.67	0.00	1.00	0.11
Weber	0.73	0.84	0.66	0_62	0.14	0.48	0.43	
REGIONAL TOTALS	0.82	0,69	0.76	0.36	0.61	0.89	0.92	0.74
Central Region								
Juab	0.73	0.87	0.77	0.50	0.94	0.58	0.54	1.11
Salt Lake	1.16	1.68	1.08	1.30	0.58	0.79	0.97	0.25
Sanpete	1.35	0.83	0.77	0.76	0.58	0.30	0.20	1.33
Tooele	0.77	0.70	0.76	0.41	0.65	0.58	0.83	0.67
Utah	0.67	0.79	0.65	0.53	0.84	0.62	0.64	0.68
Wasatch	0.67	0.50	0.32	1.64	0.43	0.33	0.02	0.78
REGIONAL TOTALS	0.81	0.79	0.73	0.54	0.72	0.55	0.65	0.74
Southern Region								
Beaver	0.42	0.67	0.28	0.48	0.04	0.33	2.00	1.60
Garfield	0.00	2.50	0.00	1.33	1.78	0.00	0.00	0.57
Iron	0.25	0.18	0.44	0.00	0.80	0.50	0.00	0.00
Kane	0.00	1.50	0.00	0.29	0.00	0.33	0.00	0.00
Millard	0.62	0.55	1.35	0.51	0.55	0.71	1.06	0.59
Piute	0.29	1.00	0.18	0.39	0.20	0.45	0.79	2.50
Sevier	0.51	0.72	0.67	0.48	0.38	0.27	0.51	0.43
Washington	0.00	0.00	0.00	1.82	0.00	1.00	0.00	0.00
Wayne	0.00	1.80	0.20	0.27	2.33	0.15	0.60	0.17
REGIONAL TOTALS	0.45	0.68	0.73	0.53	0.43	0.36	0.65	0.54
Northeastern Region								
Daggett	0.00	0.00	0.00	1.00	0.00	0.00	2.00	0.00
Duchesne	0.27	0.19	1,86	0.51	0.74	1.39	1.16	0.52
Uintah	0.09	0.79	0.75	0.38		1.47	0_83	0.56
REGIONAL TOTAL		0.38		양태에서 가장에서 가지 않았다.	-0-43	t nga sats	1_07	
Southoostom Pagion								
Southeastern Region	0.10	0.40	1 25	0.54	0.00	0.71	0 00	0.00
Carbon	0.16	0.46	1.25	0.56	0.80	0.71	0.80	0.29
Emery	0.50	0.43	0.88	0.41	0.63	0.96	0.36	0.60
Grand	0.56	0.38	3.40	1.61	1.83	1.29	0.00	0.08
San Juan REGIONAL TOTALS	0.00 • 0.39	0.50	0.00	0.00	0.20 0.97	4.00 1.07		0.00 0.41
	0 00	0.00	0 00	1 00	0.00	0.07		
Unknown counties	0.00	0.00	0.20	1.06	0.00	0.87	0.63	0.00
STATE TOTALS	0.69	0.72	0.76	0.55	0.66	0.67	0.72	0.69
WINIA IVIND	0.03	0.72	0.70	0.00	0.00	0.07	0.72	0.09

ŀ

ľ

l

Ç

Ì

Table 4. Percentage distribution of chukar harvest by region and county, 1990-97.

. . . _

County	1000				Year			
county	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	18.42	23.43	17.49	8.00	15.59	28.66	24 45	
Cache	4.43	1.93	4.73	2.23	0.09	∠0.08 1.48	24.45	28.42
Davis	0.85	1.57	1.56	0.20	0.47	1.48 0.09	3.41	2.3
Morgan	0.93	1.36	0.93	0.20	2.35		1.66	0.5
Rich	1.17	0.64	0.19	0.10		0.00	4.89	3.7
Summit	1.17	0.14	0.06	0.91	0.00 0.19	0.00	0.70	0.0
Weber	1.48	1.93	1.31	2.63	0.19	0.00	0.17	0.0
REGIONAL TOTALS	28.44	Man / Mar	26.26	14.68	3 Mark	1.11	0.87	0.2
Server and the server and the server shall be and the server server shall be a server server shall be a server		stanta (100) - Selamanage	40.20	14.00	18.87	31.36	36.16	35.4
Central Region								
Juab	5.13	8.57	6.97	5.57	4.41	5.47	2.45	8.02
Salt Lake	2.87	3.00	5.10	3.04	1.31	1.02	2.88	0.20
Sanpete	8.08	6.07	4.73	7.19	5.63	2.32	0.79	3.14
Tooele	28.21	15.29	17.67	14.17	17.28	11.78	16.33	19.0
Utah	10.26	16.86	15.99	10.93	20.09	9.83	11.79	14.9
Wasatch	0.16	0.93	0.37	2.33	0.28	0.19	0.09	0.6
EGIONAL TOTALS				43.22	49.02	30_61	34.32	46.0
Southern Region								
Beaver	2.18	3.00	0.44	1.11	0.09	1.86	0.17	0.70
Garfield	0.00	0.36	0.00	1.62	1.50	0.00	0.00	0.35
Iron	0.31	0.14	0.25	0.00	0.38	0.09	0.00	0.00
Kane	0.00	0.21	0.00	0.40	0.00	0.19	0.00	0.00
Millard	3.11	3.21	5.48	4.96	3.47	5.10	6.03	4.62
Piute	0.85	1.00	0.19	0.91	0.75	0.93	2.27	4.02
Sevier	4.74	5.79	7.47	9.31	6.95	5.19	6.64	4.45
Washington	0.00	0.00	0.00	2.02	0.00	0.09	0.04	4.40
Wayne	0.00	0.64	0.06	0.30	0.66	0.19	0.00	0.00
EGIONAL TOTALS	11.19	14.36		where the state of the second state of the sec	13.80	13.64	15.37	11.07
ortheastern Region						 - Construction (Section (S	ar di an	n na
Daggett	0 00	0 00						
Duchesne	0.00	0.00	0.00	0.30	0.00		0.17	0.00
Uintah	0.78	0.43		2.23	1.30	5.29	5.15	3.14
EGIONAL TOTALS	0.16	0.79	1.49	0.30	0.00	5.19	1.75	1.74
	0.73		2.30	2.83	1.31	10.48	7.07	4.88
outheastern Region								
Carbon	0.62	0.86	1.87	0.91	3.38	0.93	2.10	0 17
Emery	3.73	1.14	2.68	1.52	5.26	6.86		0.17
Grand	0.39	0.36	2.12	12.55	8.26	0.86 4.17	2.97	2.27
San Juan	0.00	0.36	0.00	0.00			1.57	0.17
GIONAL TOTALS	4.74	2.70		14.98		0.74 12.71	0.00	0.00
	an all of many transmost			<u></u>	-/ •UU	46 • 1 1	0.04	2.62
known counties								

STATE TOTALS

100.00 100.00 100.00 100.00 100.00 100.00 100.00

Table 5. Percentage distribution of chukar hunting pressure by region and county, 1990-97.

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
••••• •								
Northern Region								
Box Elder	14.18	21.53	15.42	12.02	14.18	17.29	19.90	28.42
Cache	5.94	3.73	4.03	4.40	1.80	3.81	4.32	2.35
Davis	0.75	1.48	3.13	0.45	1.49	0.37	0.75	0.52
Morgan	0.91	1.79	1.76	1.67	1.30	0.37	1.25	3.75
Rich	0.48	1.43	0.43	0.33	0.74	0.06	0.38	0.00
Summit	0.37	0.72	0.14	1.39	0.19	0.19	0.13	0.09
Weber	1.39	1.64	1.52	2.34	0.87	1.56	1.44	0.26
REGIONAL TOTALS	24.02	32.33	26.4	22.59	20.56	23.66	28.16	35.40
Central Region								
Juab	4.87	7.06	6.93	6.18	3.10	6.30	3.25	8.02
Salt Lake	1.71	1.28	3.61	1.28	1.49	0.87	2.13	0.26
Sanpete	4.12	5.27	4.70	5.18	6.44	5.24	2.75	3.14
Tooele	25.25	15.70	17.84	19.20	17.52	13.73	14.08	19.09
Utah	10.59	15.24	18.88	11.41	15.73	10.61	13.27	14.91
Wasatch	0.16	1.33	0.90	0.78	0.43	0.37	2.57	0.61
REGIONAL TOTALS	46.71	45.88	52.85	44.03	2 44.71	37.14	38.05	46.03
Southern Region								
Beaver	3.53	3.22	1.19	1.28	4.12	3.75	0.06	0.70
Garfield	0.59	0.10	0.28	0.67	0.56	1.00	0.06	0.35
Iron	0.86	0.56	0.43	0.11	0.31	0.12	0.50	0.00
Kane	0.05	0.10	0.00	0.78	0.06	0.37	0.00	0.00
Millard	3.48	4.19	3.08	5.34	4.15	4.81	4.07	4.62
Piute	2.03	0.72	0.81	1.28	2.48	1.37	2.07	0.87
Sevier	6.37	5.73	8.49	10.57	12.20	13.05	9.39	4.45
Washington	0.27	0.20	0.05	0.61	0.00	0.06	0.50	0.00
Wayne	0.05	0.26	0.24	0.61	0.19	0.81	0.31	0.09
REGIONAL TOTALS	17.23	15.09	14.56	21.26	21.36	25.34	16.96	11.07
Northeastern Region								
Daggett	0.59		0.00	0.17		0.00	0.06	0.00
Duchesne	1.98		0.33	2.39		2.56	3.19	3.14
Uintah	1.18	0.72	1.52	0.45	0.62	2.37	1.50	1.74
REGIONAL TOTALS	a./5	2.30	1.85	JUL	1.80	°	4.76	4.88
Southeastern Region								
Carbon	2.68	1.33						0.17
Emery	5.14				5.51		5.88	
Grand	0.48						3.75	
San Juan	0.00	しょう さいかいひょう かいのかい	waa in the state of the state o	No Martin Carlo de Carlo			0.06	
REGIONAL TOTALS	8.29		4.08		11758 .	etta 17 1199%	11.58	2.62
The set of the set of	0 00	0 00	0.34	1 00	0 00	0.04	0 50	0.00
Unknown counties	0.00	0.00	0.24	1.89	0.00	0.94	0.50	0.00
STATE TOTALS	100 00	100 00	100 00	100 00	100 00	100.00	100 00	100.00
OTATE IVIALS	T00.00	T00.00	T00.00	100.00	T00.00	100.00	T00.00	100.00

Ĩ

Í

ľ

ſ

Ì

Table 6. Statewide summary of chukar partridge harvest statistics, 1958-97.

1

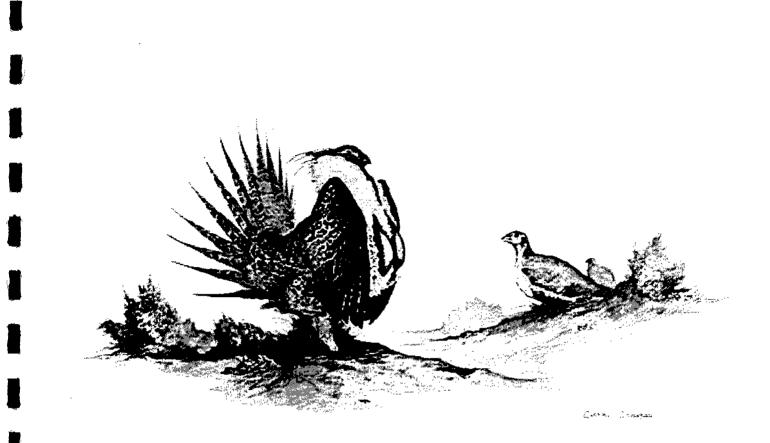
I

ļ

	Total	Total			
Year	Hunters	Harvest	Hunter-Days Afield C	hukars Per Hunter-Da	v Chukars Per Hun
1958	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, 9 07	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
992	11,125	28,599	37,463	0.76	2.57
1993	10,128	18,774	34,147	0.55	1.85
1994	8,455	18,721	28,389	0.66	2.21
1995	9,097	20,954	31,140	0.67	2.30
996	10,197	26,594	37,116	0.72	2.61
1997	9,665	23,840	34,711	0.69	2.47
Fotals					
1958-97)	534,378	1,471,399	1,632,510	<u>+-</u>	
A verage s (1958-96)	13,454	37,117	40,969	0.87	2.68

$\left \begin{array}{cccccccccccccccccccccccccccccccccccc$			All Hunts						A UILING A UILING			
$\label{eq:logicity} Farthes Hunters Hours Huntes Hunters Hours Hunters Hours Hunters Hours Hunters Hours Huntes Hunters Hours Huntes Hours Huntes Hours Hunters Hunters Hours Hunters Hours Hunters Hours Hunters Hunters Hours Hunters Hours Hunters Hours Hunters Hours Hunters Hour$	Region and	Total	Total	Tota	Total	Birds/	Complet		Total	Total		Birds/
I Region	County	Parties	Hunters	Hours	Birds	100 Hr	Hunts	Hunters	Hours	Birds	100 Hr	Hunter
ef	lorthern Region							8				
AL TOTALS	lox Elder	ł	1	1	:	:	1	:	;	;	ł	ŧ
AL TOTALS	tache	ł	ł	ł	I	:	1	1	:	ł	1	;
	Javis	ł	1	:	I	1	1	ł	I	ł	ł	ł
AL TOTALS	Aorgan	:	ł	:	:	:	1	:	:	I	1	:
M.I TOTALS	tich	1	1	:	:	:	:	ł	1	1	ł	ł
ML TOTALS	ummit	:	:	:	:	;	1	ł	:	1	:	1
M.I. TOTALS <th< td=""><td>Veher</td><td>;</td><td>1</td><td>1</td><td>1</td><td>ł</td><td>1</td><td>ł</td><td>:</td><td>ł</td><td>I</td><td>:</td></th<>	Veher	;	1	1	1	ł	1	ł	:	ł	I	:
Region	EGIONAL TOTALS											
region	COUNTL TO LALO				E			8		8		
Image: second												
(6) 1	uab	1	1	:	:	:	1	ł	:	I	I	:
N 33 92 300 37 12 23 51 191.5 M TOTALS 33 92 300 37 12 23 51 191.5 M TOTALS 33 92 300 37 12 23 51 191.5 M TOTALS 39 92 300 37 12 23 51 191.5 M TOTALS 39 92 300 37 12 23 51 191.5 M Region 12 12 12 12 12 13 13 M L TOTALS 12 12 12 12 13 14 M L TOTALS 12 12 12 12 13 13 M L TOTALS 12 12 12 12 13 13 M L TOTALS 12 13 12 13 12 13 13 M L TOTALS <th13< th=""> <th13< th=""> <th13< th=""></th13<></th13<></th13<>	ait Lake	ł	ł	:	:	:	:	1	ł	1	:	:
39 92 300 37 12 23 51 191.5 AL TOTALS 39 92 300 37 12 23 51 191.5 AL TOTALS 39 92 300 37 12 23 51 191.5 AL TOTALS 39 92 300 37 12 23 51 191.5 AL TOTALS 12 12 23 51 191.5 191.5 AL TOTALS 12 12 12 12 12 13 Boto 12 12 12 12 13 13 13 12 12 12 12 13 13 14 12 12 12 12 12 12 13 14 101ALS 1 1 1 1 1 14 101ALS 1 1 1 1 1 14 101ALS 1	anpete	:	1	;	1	ł	:	1	I	I	l	:
Induction Induction <thinduction< th=""> Induction <thinduction< th=""> Induction Induction</thinduction<></thinduction<>	ooele	39	92	300	37	12	23	51	191.5	29	15	0.57
h	tah	:	I	:	1	I	:	:	ł	1	ł	:
Al TOTALS 39 92 300 37 12 23 51 191.5 In Region	lasatch	1	ł	:	:	:	1	:	ł	I	ł	1
In Region In Region <thin region<="" th=""> In Region <thin region<="" th=""> In Region In Region</thin></thin>	EGIONAL TOTALS	39	92	300	37	12	23	20	191.5	29	15	0.57
I I	outhern Region										2	
I I	eaver	:	:	:	:	I	;	:	ļ	ł	:	1
Image: constraint of the	arfield	:	1	:	ł	ł	I	:	:	ł	1	1
Image: second	on	t	1	ł	1	I	1	1	1	:	1	1
Image: constraint of the	ane	:	:	:	:	ł	ł	1	1	ł	ł	ł
Image: second	illard	:	1	:	1	1	ł	I	1	1	1	ł
gton <td>iute</td> <td>ł</td> <td>ł</td> <td>:</td> <td>ł</td> <td>ł</td> <td>1</td> <td>I</td> <td>:</td> <td>ł</td> <td>ł</td> <td>:</td>	iute	ł	ł	:	ł	ł	1	I	:	ł	ł	:
gton <td>evler</td> <td>1</td> <td>ł</td> <td>:</td> <td>:</td> <td>1</td> <td>1</td> <td>:</td> <td>;</td> <td>ł</td> <td>I</td> <td>:</td>	evler	1	ł	:	:	1	1	:	;	ł	I	:
AL TOTALS II III II	/ashington	ł	:	ł	:	1	1	ł	ł	:	ľ	:
(AL TOTALS	avne	;	ł	ł	:	1	:	ł	ł	ł	1	Ĭ
Istern Region Interned Interne	EGIONAL TOTALS	1	1	:	:	1	:		:	1	:	:
ne 1	ortheastern Region											
ne I	aggett	:	I	1	I	ł	1	ł	1	ł	ł	:
VAL TOTALS I	uchesne	ł	ł	ł	1	ł	1	ł	:	ł	ł	I
VAL TOTALS	intah	1	1	ļ	1	I	:	1	;	1	1	1
astern Region	EGIONAL TOTALS	1	:	1	;	1	1	1	:	:	1	:
ALTOTALS	outheastern Region	_										
an Internet in the second s	arbon	1	:	ł	ł	i	1	:	ł	ł	I	ł
an Indexes and	mery	1	:	1	:	1	•	ł	ł	1	I	1
ALS	irand	1	ł	ł	ł	Ĩ	:	:	1	ł	ł	ł
ALS	an Juan	Ŧ	1	ł	:			1	1	1	ł	1
	EGIONAL TOTALS	1	1	1	1	:		:	1	1	1	:
39 92 300 37 12 23 51 191.5	STATE TOTALS	39	92	300	37	12	23	51	191.5	29	15	0.57
10 57 71 JC 000 78 65	SIAIE IUIALO	RO	76	200	5	71	3	10	C.121		R7	. 7
			Î	Ì	Ì			J				

1992 1993 1994	1992		1993		1994		1995	5	1996		1997	
Region and County	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/	Birds/	Birds/		Birds/		Birds/	
Northern Region						Laurer		Jetunu	100 Hr	Hunter	100 Hr	Hunter
Box Elder	ł	ł	ł	ł	1	I]					
Cache	1	I	ł	ł		l	ł	ł	ł	I	1	I
Davis	I			I	ł	ł	I	i	ł	1	1	ł
Mordan	I	1	1	1	1	ł	1	ł	ł	1	1	1
Dich	I	ł	I	ł	ł	Į	ł	1	I	1	ł	!
	ł	ł	I	1	ł	I	1	1	;	1	ł	1
Summit	ł	1	1	1	ł	ł	ł	ł	I	1	1	
Weber	ł	1	ł	1	ł	;	ł	ł		ł	I	ł
REGIONAL TOTALS	1	1	:					8	E	:	;	1
Central Region							1		3	1	;	1
Juab	ł	1	ł	ł	;							
Salt Lake	:	1	ł		ł	8	I	:	ł	1	1	1
Sannete	ł		ł	1	8	I	I	1	ł	1	I	1
Tooolo	I	ł	ł	ł	I	ł	1	I	ł	1	:	:
00616 1 L	1	ł	1	1	ł	ł	I	I	ł	ł	15	0.57
	ł	I	ł	:	;	ł	18	0.75	ł	1	ł	1
wasatch	1	ł	ł	ł	1	ł	:	;	1	I	1	1
REGIONAL TOTALS	I	ł	1	1	1	H	18	0.75	1		40	64 0
Southern Region											2	200
Beaver	1	ł	I	I	1	ł	ł	1	ł	ł	ł	1
Garfield	ł	I	1	1	;	I	1	ł	I			f
lron	ł	I	ł	1	1	1	ł	1				1
Kane	ł	1	ł	1	ľ	ł	ł		ł	I	ł	1
Millard	ł	ł	:	I	ł	. 1	[I	1	1	ł	I
Piute	:	:	1	1		I	ł	ł	I	I	1	1
Sevier	:	ł	1		I	ł	ł	1	I	;	1	:
Washington	ł			I	I	1	1	:	1	1	1	1
Waune		I	ł	1	1	;	ł	1	1	1	1	1
	1	8	I	ł	8	I	1	I	ł	ł	ł	ł
Neutronter Defen	1	1	I	-	1	1	ł	1	I	1	:	1
A UTERSTEIL REGION												
Ductors	1	ł	I	1	ł	I	ļ	ł	ł	1	1	1
Ducnesne	ł	ł	ł	1	;	ł	;	ł	ł	1	:	;
	-	1	1	1	I	ł	ł	ł	ł	ł	:	ł
REGIONAL TOTALS	1	1	1	ł	1	I	I	1	1			
Southeastern Region												
Carbon	ł	ł	I	ł	ł	1	I	ł	1	ł	ł	
Emery	59	1.74	:	ł	1	1	66	2.73	1		1	
Grand	1	ł	41	2.36	102	3.14	33	1.79	ł			
San Juan	:	:	I	ł	ł	ł	ł	1	1	;		
REGIONAL TOTALS	59	1.74	41	2.36	102	3.14	57	2 28				
							5				1	-



Strutting ground count surveys indicated a 10 percent increase in the average male grouse attendance from 1996.

Brood surveys showed decreased production per 100 adults throughout the state. Birds observed per 100 hours decreased 3 percent from 1996, but was 15 percent above average.

Harvest was 58 percent below the long-term average. Hunter numbers decreased 25 percent in 1997 and remained 43 percent below the long-term average.

Age ratios derived from wings indicated a 66 percent increase in young per 100 adults and an 88 percent increase in young per 100 adult hens.

Since 1959, numerous new strutting grounds have been discovered throughout Utah. However, average number of male grouse per ground has declined drastically. A decline in the average number of grouse per ground seems to be representative of Utah sage grouse populations.

Recent DNA and physiological studies indicate that two distinct species of sage grouse exist in Utah. The smaller species is located south and east of the Colorado River and is known as the Gunnison sage grouse.

Declines in sage grouse populations are attributed to loss and changes in sage brush habitats throughout the West. Spraying, urban and industrial development, burning and overgrazing by domestic livestock have altered critical sage grouse habitat.

Strutting Ground Counts

The status of the sage grouse breeding population for 1997, as indicated by strutting ground counts, is shown in Table 1 and Figure 1 of this section. Results of this survey for 1997 compared to 1996 and the 1959-96 average follow:

	<u> 1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Number of grounds counted	148	+17	+64
Total male grouse counted	1,641	+24	+1
Average male grouse per ground Percent change from previous year	11	+10	-46
(comparable grounds)			

The numbers of male grouse observed increased 24 percent statewide and average number of males per ground increased 10 percent.

Brood Counts

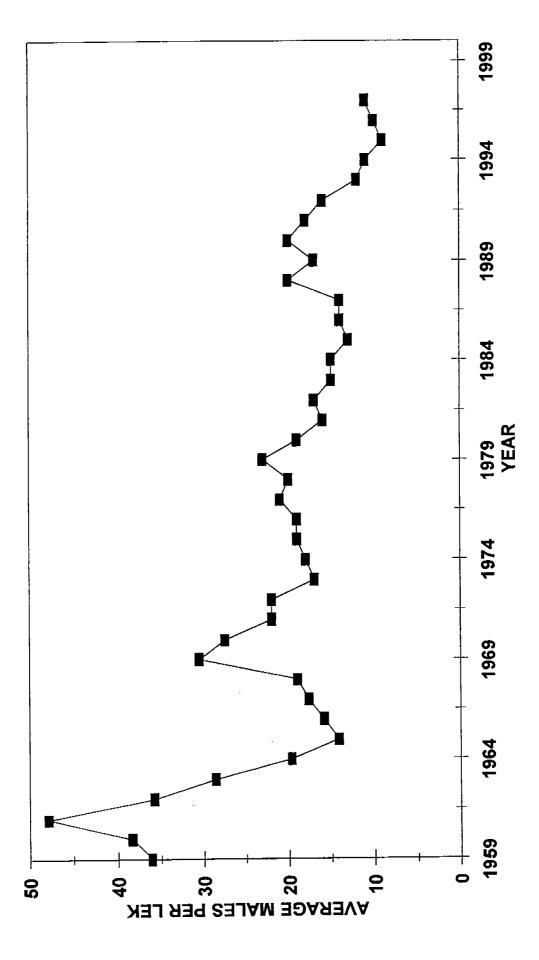
Results of the summer inventory survey for 1997 are found in Table 2. Long-term trends of young per adult ratios, mean brood size and sage grouse observed per 100 hours are shown in Tables 3-5. Indices for 1997 are compared to 1996 and the previous 10-year (1987-96) average as follows:

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Total sage grouse counted	975	. 7 5	40
	975	+35	+42
Young per 100 adults	165	-16	+2
Mean brood size	4.43	-15	0
Sage grouse observed per 100 hours	347	-3	+15
Total hours effort	281	+38	+15

The effort devoted to sage grouse brood counts was 15 percent above average, and the total number of grouse counted was 42 percent above average.

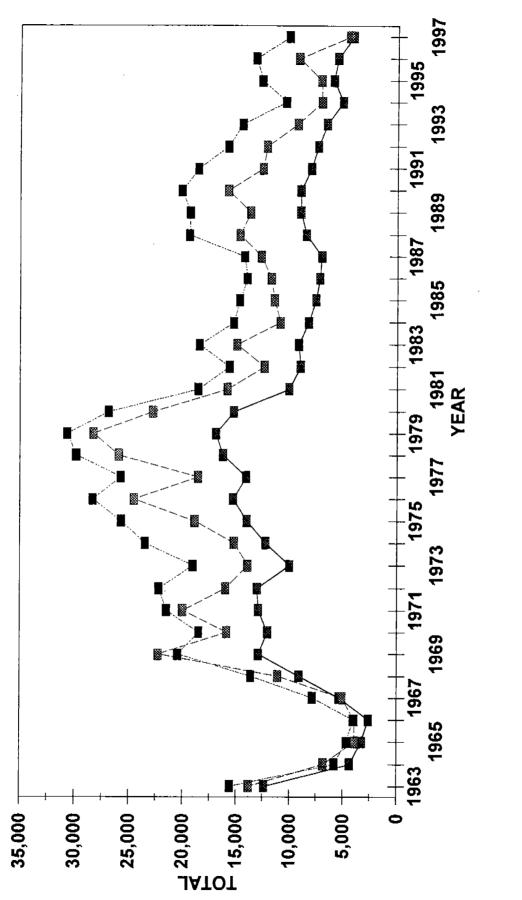
Total sage grouse counted increased 35 percent from 1996, while production of young per 100 adults decreased 16 percent. The average brood size was the same as the 10-year average.





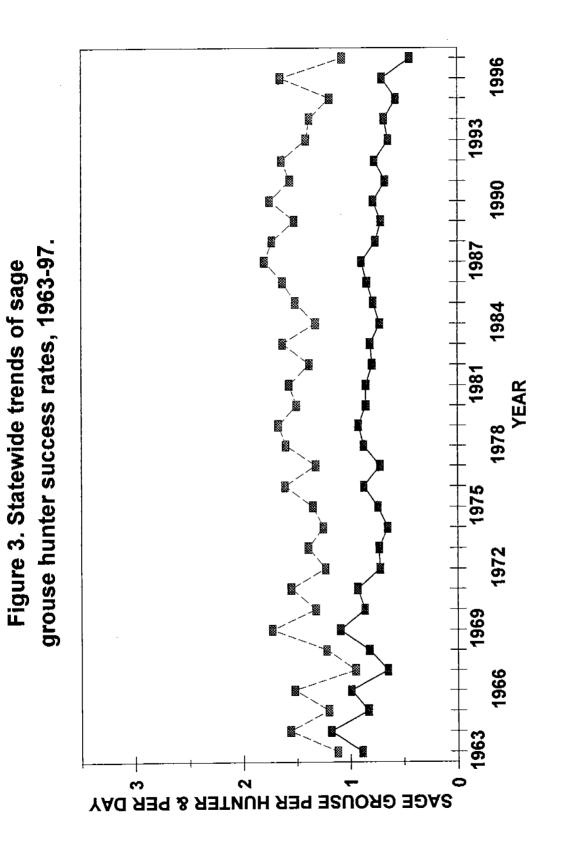
. 71





----- Hunter-days Afield

Hunters*





Harvest

Hunter Questionnaire

Results of the 1997 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 1997 hunting season compared to 1996 and the previous 47-year average follow:

	<u>1997</u>	Percent change from 1996	Percent change from <u>Average</u>
Sage grouse hunters	4,178	-25	-43
Sage grouse harvested	4,489	-51	-58
Hunter-days afield	10,101	-24	-23
Sage grouse per hunter-day	0.44	-37	-29
Sage grouse per hunter	1.07	-35	-41

Sage grouse per hunter-day success rate decreased 37 percent in 1997. Total statewide harvest decreased 51 percent, and there was a 25 percent decrease in total sage grouse hunters.

Long-term sage grouse harvest trends are shown in Figures 2 and 3.

Field Bag Checks

A summary of field bag check data for 1997 is shown in Table 11. Hunter success trends determined via this method are shown in Table 12. Results of the 1997 survey compared to 1996 and the 10-year (1986-96) average follow:

·		Percent change from	Percent change from
	<u>1997</u>	<u>1996</u>	Average
Total hunters checked	231	-31	-61
Total hours hunted	924	-31	-70
Sage grouse per hunter			
(complete hunts)	0.32	-40	-64
Sage grouse bagged per 100 hours	8	-38	-58
Average hours per hunter-day			
(complete hunts)	4.00	+1	-19
Hours hunted per grouse bagged (complete hunts)	12.49	+65	+102

Hunter success rates from field bag checks showed decreased success on the opening weekend of 1997. Sage grouse bagged per 100 hours decreased 38 percent. Average hours per hunter day increased 1 percent from 1996. Average hours per grouse bagged increased 65 percent.

Sex and Age Composition of the Harvest

A summary of the sex and age composition of harvested sage grouse in 1997 is found in Table 13 and the trend from 1993-97 in Table 14.

Following are data derived from wing surveys in 1997 compared to 1996 and the 10-year (1987-96) average:

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Sample size	168	-28	-78
Percent males	39	+5	+1
Percent females	61	-3	0
Young per 100 adults	300	+66	+127
Young per 100 hens (adult)	420	+88	+149
Percent successfully nesting females			
Adults	73		
Yearlings	67		
A11	70		

Analysis of wings collected at checking stations during the 1997 season indicates that statewide production was up 88 percent compared to 1996, and was 149 percent above the long-term average.

1997 33 345 53 23 -22 339 57 741 <u>ہ</u> 9 35 33 34 -ا <u>ک</u> 1 1 ł ł 1996 23 278 11 209 19 37 521 15 5 25 -1 5 N 0 40 1 1 L 1 ð ł 1995 1 23 -134 -134 2 **2** 6 **-**228 000 . ł æ ł 1 1 1994 29 325 9 **1** 28 49 14 -9 19 19 4 \$9 \$3 ÷ 5 2 8 9 1 1 ł - 1 1993 14 314 22 28 29 29 29 -7 -7 -7 19 $\tilde{\gamma}$ ł 1 ł ł 1 1 1 ł 1 11 1992 Year 3234 우 58 33 5 3 **3**3 → 6 1 300 1 1991 93339 -15 -15 4 : 24 1 | | | | | | | Table 1. Summary of sage grouse strutting ground counts by region and county, 1987-97. Region and 1990 1,190 31 41 863 7337 39 ł ł 1 1 h 1 1 1 1 1 1 1989 ÷8858 19 639 34 5 る 七 8 名 5 47 8 1 1 11 1 1 1 1 1988 319 53 45 419 7533 5 13 -9 33 **-**₽ 2 2 2 2 ŝ 1987 53 434 12 9 8 8 8 4 8 **43 28 2** 23 ~ 0 0 | % Change From Previous Year - Comparable Grounds % Change From Previous Year - Comparable Grounds % Change From Previous Year - Comparable Grounds REGIONAL TOTALS % Change From Previous Year - Comparable Grounds % Change From Previous Year - Comparable Grounds % Change From Previous Year - Comparable Grounds Average Grouse Per Ground (all strutting grounds) County Average (ail strutting grounds) County No. Strutting Grounds Counted **Fotal Male Grouse Counted Total Male Grouse Counted** Total Male Grouse Counted **Total Male Grouse Counted Total Male Grouse Counted Fotal Male Grouse Counted** Northern Region **Box Elder** Morgan Summit Cache Rich

Inty 1987 1988 1988 1989 1992 1993 1994 1 </th <th></th> <th></th> <th></th> <th></th> <th>rear</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>					rear							
Region 1 1 1 1 1 1 3 3 1 utiting Grounds Counted 9 14 11 4 15 5 0 0 ale Grouse Counted 9 14 11 4 15 5 0 0 Average (all strutting grounds) 9 56 -21 63 100 100 11 12 12 12 14 14 14 14 15 12 12 12 12 12 12 12 12 12 12 12 12 12 12	County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
utiling Grounds Counted 1 1 1 1 1 1 3 3 1 ale Grouse Counted 9 14 11 4 15 5 0 0 or Average (all strutting grounds) 9 14 11 4 15 2 0 0 or Average (all strutting grounds) 0 56 -21 63 100 -100 0 0 utiling Grounds Counted 2 2 2 2 2 2 2 2 2 2 0 0 0 0 0 0 <td>vtral Region</td> <td></td>	vtral Region											
utiting Grounds Counted 1 1 1 1 1 3 3 1 ale Grouse Counted 9 14 11 4 15 5 0 0 Average (all strutting grounds) 9 14 11 4 15 5 0 0 Average (all strutting grounds) 0 0 5 2 2 2 2 -100 -100 0	b											
Iale Grouse Counted 9 14 11 4 15 5 0 0 Average (all strutting grounds) 9 14 11 4 15 2 0 0 Average (all strutting grounds) 0 56 -21 63 100 -100 0 0 utting Grounds Counted 0 0 0 0 0 0 0	o. Strutting Grounds Counted	÷	÷	-	÷	-	ო	ო	~ ~	-	1	┳
Average (all strutting grounds) 9 14 11 4 15 2 0 0 nge From Previous Year - Comparable Grounds 0 56 -21 -53 -100 100 0 utting Grounds Counted 2 2 2 2 2 2 - 2 - 0 0 0 0 0 <	ntal Male Grouse Counted	σ	4	11	4	15	ŝ	•	0	-	ł	o
Name Comparable Grounds 0 56 -21 63 -100 -110 -100 -111 12 -112	ounty Average (all strutting grounds)	6	14	11	4	15	2	0	0	-	ł	0
utting Grounds Counted 2 2 2 2 2 2 2 2 1 1ale Grouse Counted 0 0 0 0 0 0 0 0 1 Average (all strutting grounds) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10 10 10 10 10 10 10 10<		0	56	-21	63	1	-100	-100	0	100	1	1
utting Grounds Counted22222222lale Grouse Counted000000000Average (all strutting grounds)0000000Average (all strutting grounds)00000000utting Grounds Counted55555444Average (all strutting grounds)19181518162553Average (all strutting grounds)19181518162553Average (all strutting grounds)19181518162553Inting Grounds Counted222222222Aserage (all strutting grounds)27262222222Average (all strutting grounds)27262222222Aserage (all strutting grounds)272622222222Aserage (all strutting grounds)54544191816101112Aserage (all strutting grounds)272622222222Aserage (all strutting grounds)545441918177222 <td>Ipete</td> <td></td>	Ipete											
Take Grouse Counted 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10 0 0 0 0 0 0 0 10 10 10 10 10 10 10 10 10 10	o. Strutting Grounds Counted	2	2	2	2	2	ł	2	ł	1	i	1
Average (all strutting grounds) 0 0 0 1 1 1 0 0 10	otal Male Grouse Counted	0	0	0	0	•	ł	•	ł	ł	1	ł
nge From Previous Year - Comparable Grounds 0 0 0 12 0 12 0 11 12 0 11 12 0 11 12 0 14 0 10 10 10 10 10 10 10 10 10 10 11	ounty Average (all strutting grounds)	I	0	0	0	ł	:	•	ł	ł	ł	ł
utting Grounds Counted 5 5 5 5 5 4 4 4 faile Grouse Counted 96 89 77 91 82 100 11 12 / Average (all strutting grounds) 19 18 15 18 16 25 5 3 / Average (all strutting grounds) 19 18 15 18 16 25 5 3 nge From Previous Year - Comparable Grounds 17 -5 -17 20 -15 32 -87 40 nutting Grounds Counted 2 2 2 2 2 2 2 2 2 45 54 45 46 Ale Grouse Counted 27 26 22 26 6 24 37 12 Average (all strutting grounds) 27 26 22 26 6 24 37 12 Average (all strutting grounds) 54 4 -19 48 -75 300 -9 -12 Average (all strutting grounds) 24 -19	Change From Previous Year - Comparable Grounds	0	0	0	0	1	1	0	:	1	J	ł
utting Grounds Counted 5 5 5 5 4 4 4 fale Grouse Counted 96 89 77 91 82 100 11 12 r Average (all strutting grounds) 19 18 15 18 16 25 5 3 nge From Previous Year - Comparable Grounds 17 -5 -17 20 -15 32 -87 40 nutting Grounds Counted 2 2 2 2 2 2 2 2 2 4 56 11 49 45 24 Average (all strutting grounds) 27 26 22 26 6 24 37 12 Average (all strutting grounds) 27 26 22 26 6 24 37 12 Average (all strutting grounds) 27 26 22 26 6 24 37 12 Average (all strutting grounds) 54 4 -19 18 -75 30 9 12 Average (all strutting grounds) 24<												
Counted 96 89 77 91 82 100 11 12 I strutting grounds) 19 18 15 18 16 25 5 3 evious Year - Comparable Grounds 17 -5 -17 20 -15 32 87 40 ds Counted 2 2 2 2 2 2 2 2 counted 54 52 44 51 11 49 45 24 I strutting grounds) 27 26 24 51 14 49 45 24 evious Year - Comparable Grounds 54 -19 18 -75 300 -9 -12 ds Counted 7 10 10 10 9 11 7	o. Strutting Grounds Counted	ŝ	ŝ	ŝ	ŝ	ю	4	4	4	4	ო	4
I strutting grounds) 19 18 15 18 16 25 5 3 evious Year - Comparable Grounds 17 -5 -17 20 -15 32 -87 40 dds Counted 2 2 2 2 2 2 2 2 Counted 2 54 52 44 51 11 49 45 24 I strutting grounds) 27 26 22 26 6 24 37 12 evious Year - Comparable Grounds -54 -4 -19 18 -75 300 -9 -12 dds Counted 7 10 10 10 9 11 7	stal Male Grouse Counted	96	89	77	9	82	100	7	12	<u>4</u>	17	36
vious Year - Comparable Grounds 17 -5 -17 20 -15 32 -87 -40 dds Counted 2 2 2 2 2 2 2 2 dds Counted 54 52 44 51 11 49 45 24 I strutting grounds) 27 26 22 26 6 24 37 12 evious Year - Comparable Grounds -54 -4 -19 18 -75 300 -9 -12 dds Counted 7 10 10 10 9 11 7	ounty Average (ail strutting grounds)	19	18	1 5	18	16	25	ŝ	ę	ო	9	თ
Ids Counted 2 2 2 2 2 2 2 Counted 54 52 44 51 11 49 45 24 I strutting grounds) 27 26 5 2 37 12 evious Year - Comparable Grounds -54 -4 -19 18 -75 300 -9 -12 ids Counted 7 10 10 10 10 9 11 7	Change From Previous Year - Comparable Grounds	17	Ŷ	-17	20	-15	32	-87	4	0	100	9
ds Counted 2 2 2 2 2 2 2 Counted 54 52 44 55 11 49 45 24 I strutting grounds) 27 26 22 26 6 24 37 12 evious Year - Comparable Grounds -54 -4 -19 18 -75 300 -9 -12 ds Counted 7 10 10 10 10 9 11 7												
Counted 54 52 44 51 11 49 45 24 I strutting grounds) 27 26 22 26 6 24 37 12 evious Year - Comparable Grounds -54 -4 -19 18 -75 300 -9 -12 ids Counted 7 10 10 10 10 9 11 7	o. Strutting Grounds Counted	7	2	2	2	2	2	2	2	2	2	2
I strutting grounds) 27 26 22 26 6 24 37 12 evious Year - Comparable Grounds -54 -4 -19 18 -75 300 -9 -12 ids Counted 7 10 10 10 10 9 11 7	otal Male Grouse Counted	54	52	44	5	7	49	45	24	24	34	46
evious Year - Comparable Grounds -54 -4 -19 18 -75 300 -9 -12 Ids Counted 7 10 10 10 9 11 7	ounty Average (all strutting grounds)	27	26	22	26	9	24	37	7	12	17	23
Ids Counted 7 10 10 10 9 11 7	Change From Previous Year - Comparable Grounds	-54	4	-19	18	-75	300	6-	-12	•	42	35
ids Counted 7 10 10 10 9 11 7	GIONAL TOTALS											
	o. Strutting Grounds Counted	~	9	ę	6	9	Ø	7	~	~	ŝ	~
155 132 146 108 154 56 36	otal Male Grouse Counted	150	155	132	146	108	154	56	36	37	<u>5</u>	82
d (all strutting grounds) 17 16 13 15 12 17 14 5	verage Grouse Per Ground (all strutting grounds)	17	16	13	15	12	17	14	ŝ	ιċ	80	7
smbarable Grounds -25 -3 -16 11	mparable	-25	ማ	- 1 6	1	4	2	<u>9</u> 2	1 6	1	ł	1

Region and				Year							
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
rn Region											
Beaver											
No. Strutting Grounds Counted	4	ę	ŝ	2	I	ň	-	4	-	~	4
Total Male Grouse Counted	52	8	7	33	ł	68	49	57	57	79	32
County Average (all strutting grounds)	13	15	14	16	4	19	49	14	œ	7	æ
% Change From Previous Year - Comparable Grounds	γ	I	ŀ;	I	1	54	47	1	-1	I	-53
Garfield											
No. Strutting Grounds Counted	6	80	ø	9	1	ð	9	1	1	1	12
Totat Male Grouse Counted	175	251	126	244	I	211	77	145	139	88	126
County Average (all strutting grounds)	19	э.	16	24	35	23	÷	13	13	œ	11
% Change From Previous Year - Comparable Grounds	0	24	-20 -2	ł	I	-23	ŝ	78	0	ł	36
Iron											
No. Strutting Grounds Counted	4	9	ç	ę	ł	2	-	ო	0	e	e
Total Male Grouse Counted	64	111	127	50	ł	43	41	39	26	17	34
County Average (ail strutting grounds)	16	19	21	20	52	21	41	13	13	9	5
% Change From Previous Year - Comparable Grounds	÷	-13	4	1	ł	-36	24	0	-14	ł	- 1 0
Kane											
No. Strutting Grounds Counted	ł	ł	2	1	ł	'n	7	2	m	e	e
Total Male Grouse Counted	1	ł	41	1	ł	30	11	-	2	0	4
County Average (all strutting grounds)	ł	;	21	I	4	10	9	-	-	0	-
% Change From Previous Year - Comparable Grounds	ł	1	1	1	1	-28	e F	0	0	I	1
Millard											
No. Strutting Grounds Counted	ł	I	1	ł	I	1	ł	I	ı	I	1
Total Male Grouse Counted	ł	1	1	ł	ł	ł	I	ł	ł	ł	:
County Average (all strutting grounds)	1	I	1	I	ł	1	1	1	I	I	1
% Change From Previous Year - Comparable Grounds	1	I	ł	1	1	I	I	I	ł	1	1
Plute									-		
No. Strutting Grounds Counted	1	I	I	1	ł	ł	1	I	ł	-	-
Total Male Grouse Counted	1	ł	1	1	ł	1	I	1	1	29	34
County Average (ail strutting grounds)	ł	ł	I	I	1	1	1	1	ł	29	34
% Change From Previous Year - Comparable Grounds	1	ł	ł	ł	1	I	ł	1	1	1	I
Sevier											
No. Strutting Grounds Counted	ł	2	1	í	-	ო	ł	-	-	2	-
Total Male Grouse Counted	1	0	ł	ł	2	22	ł	÷	12	34	5
County Average (all strutting grounds)	ł	I	ł	ł	20	~	ł	÷	4	17	5
% Change From Previous Year - Comparable Grounds	ł	I	1	1	1	1	I	1,10	6	ł	ł
Wayne			.,		:			4			1
No. Strutting Grounds Counted	13	13	13	ç j	16	12	ł	eo ĝ	Ŧ	o (12
Total Male Grouse Counted	182	326	268	259	367	289	ł	163	206	193	272
County Average (all strutting grounds)	4	25	21	26	23	22	ł	20	19	2	23
% Change From Previous Year - Comparable Grounds	79	8	:	1	1	1	1	ę	÷	1	;
REGIONAL TOTALS	1	1		1	ļ	1	:		1		1
No. Strutting Grounds Counted	8 i	32	34	52	1	32	e į	53	35	36	36
Total Male Grouse Counted	473	734	633	596	387	663	178	416	442	4	517
Average Grouse Per Ground (all strutting grounds)	;	33	19	24	31	1	1 8	12	Ę	12	4
% Change From Previous Year - Comparable Grounds	13	8	-18	1	1	-35	뭐	234	1	ł	ł

_	
ਰਿ	
÷	
ä	
Ē	
8	
-	
<u>e</u>	
ē	
Ĕ	
	1

Region and				Year							
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Northeastern Region											
Daggett											
No. Strutting Grounds Counted	9	ç	~	9	ł	9	ო	ę	S	9	9
Total Male Grouse Counted	26	46	25	42	1	17	14	11	25	32	23
County Average (all strutting grounds)	4	œ	4	7	1	ñ	ŝ	4	ŝ	10	4
% Change From Previous Year - Comparable Grounds	16	77	-24	24	ł	1	ŀ;	5	-18	28	-28
Duchesne											
No. Strutting Grounds Counted	14	7	11	15	ł	16	15	6	ю	5	7
Total Male Grouse Counted	104	0	76	173	I	129	87	37	4	22	32
County Average (ail strutting grounds)	-	4	~	12	ł	æ	9	4	¢	╡╺┫	- 40
% Change From Previous Year - Comparable Grounds	-12	-83	167	22	ł	ł	1 0	Ş	14	-27	n no
Grand											
No. Strutting Grounds Counted	1	2	ł	ł	ł	1	;	-	1	ł	ł
Total Male Grouse Counted	ł	ŝ	I	ł	ł	1	ł	0	1	I	ł
County Average (ail strutting grounds)	ł	e	ł	ł	ł	ł	ł	1	;	1	ł
% Change From Previous Year - Comparable Grounds	ł	0	ł	ł	ł	I	ł	ł	1	1	1
Uintah		- - -									
No. Strutting Grounds Counted	14	22	20	20	1	22	22	18	29	24	21
Total Male Grouse Counted	159	468	266	321	1	287	173	208	197	268	278
County Average (all strutting grounds)	1	21	<u>1</u> 3	16	1	13	80	12	~	÷	13
ge From Prevlous Year - C	-26	9 9	45	0	I	ł	3 4	4	8	32	ማ
Wasatch											
No. Strutting Grounds Counted	ł	2	2	I	I	I	I	2	ę	-	-
Total Male Grouse Counted	I	22	22	1	I	1	ł	8	б	ŝ	Q,
County Average (all strutting grounds)	1	5	:	1	ł	ł	ł	4	ო	5	ŝ
% Change From Previous Year - Comparable Grounds	1	120	0	1	1	1	1	÷	13	ŧ	¢
REGIONAL TOTALS				ĺ		ĺ					
No. Strutting Grounds Counted	34	39	4	4	0	4	4	33	42	36	35
Total Male Grouse Counted	289	550	389	536	0	433	274	264	271	327	338
Average Grouse Per Ground (all strutting grounds)	đ	15	9	13	I	ŝ	ø	9	~	a	₽
% Change From Previous Year - Comparable Grounds	-18	37	-37	8	I	1	-27	-18	-22	22	1

ļ

_
7
ž
Ē
0
ğ
*
<u>e</u>
ab
Tal

l

l

Table 1 (continued)											
Region and				Year		;					
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Southeastern Region											
Carbon											
No. Strutting Grounds Counted	7	10	0	6	8	80	e	7	ł	80	4
Total Male Grouse Counted	55	196	181	146	103	4	14	ę	ł	26	46
County Average (all strutting grounds)	80	20	18	16	13	5	ŝ	•	ł	ę	12
% Change From Previous Year - Comparable Grounds	-27	142	ዋ	3 8	Ļ	6	4	-79	ł	I	ł
Emery											
No. Strutting Grounds Counted	2	7	2	2	2	7	ę	2	7	2	2
Total Male Grouse Counted	6	12	28	ŝ	7	-	en	ŝ	0	0	ð
County Average (all strutting grounds)	ı0	9	4	ę	4	শ	-	ę	0	0	o
% Change From Previous Year - Comparable Grounds	-18	20	167	-82	6	0	-57	67	-250	0	ł
San Juan											
No. Strutting Grounds Counted	4	4	4	4	4	4	4	4	4	4	4
Total Male Grouse Counted	35	32	39	41	32	40	4	41	4	29	26
County Average (all strutting grounds)	თ	80	9	9	80	1 0	5	9	9	7	~
% Change From Previous Year - Comparable Grounds	28	6-	22	5	-22	25	10	4	?	-27	ł
REGIONAL TOTALS											
No. Strutting Grounds Counted	13	16	16	15	4	4	9	13	g	4	9
Total Male Grouse Counted	100	240	248	192	142	87	61	49	40	55	22
Average Grouse Per Ground (all strutting grounds)	80	15	16	13	9	ç	g	4	~	4	~
% Change From Previous Year - Comparable Grounds	0	74	ŝ	35	7	-12	ų	φ	1	I	ł
STATE TOTALS											
No. Strutting Grounds Counted	126	137	119	130	79	133	93	128	131	128	145
Total Male Grouse Counted	1,818	2,734	2,041	2,660	1,347	2,082	1,133	1,334	1,230	1,395	1,750
Average Grouse Per Ground (all strutting grounds)	4	20	17	20	17	16	12	10	6	Ŧ	42
% Change From Previous Year - Comparable Grounds	2	51	14	Ņ	÷	ę	95 7	39	1	I	1
											ļ

	Distinct	ſ	Distinct			Mixed Yound												
Columny: It Additish Young Brouge Additish Young Brouge Holes Young Brouge Young Young Brouge Young Young Brouge Young Young Brouge Young You	Region and					& Adults				Total		Young/	Vehicle		ours of Effort			Birds/
	County			Young	Brood	Adufts	Poung	Young	Adults		Grouse	100 Adults	Miles	Vehicle	Horse	Walk	Total	<u> 100 Hr</u>
Mat Total T	Northern Region					:	;	I	ł		ŝ	1	4	¢	¢		2	000
	Box Elder	o	6	24	2.67	9	22	1	28	46	71	177	2	7	٥	2	44	300
	Cache	:	ł	I	:	:	:	1	ł	ł	1	1	ł	I	ł	ł	ł	;
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Davis	ı	;	1	:	I	:	1	1	1	ł	1	1	:	1	:	:	ł
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Morgan	1	ł	I	1	1	ł	1	ł	:	1	ł	1	1	ł	:	1	F
	Rich	27	27	107	3.96	I	I	80	107	107	214	129	152	1	ł	:	14	1,529
	Summit	:	:	;	:	:	ł	1	1	I	ł	1	I	:	1	1	1	:
	Weber	ł	1	1	1	1	1	1	1	1	ł	:	ł	1	1	;	1	1
Region Region <thregion< th=""> <thregion< th=""> <thregion< t<="" th=""><th>REGIONAL TOTALS</th><th>38</th><th>36</th><th>131</th><th>3.64</th><th>10</th><th>22</th><th>87</th><th>133</th><th>153</th><th>286</th><th>115</th><th>162</th><th>n</th><th>ç</th><th>15</th><th>38</th><th>753</th></thregion<></thregion<></thregion<>	REGIONAL TOTALS	38	36	131	3.64	10	22	87	133	153	286	115	162	n	ç	15	38	753
	Central Region																	
	Juab	1	;	1	:	1	ł	;	1	۱	1	ł	1	ļ	:	ł	ł	1
$ \begin{array}{ cccccccccccccccccccccccccccccccccccc$	Salt Lake	1	ł	ł	1	:	;	:	ł	;	I	I	1	ł	1	:	ł	;
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Sanbete	1	:	ł	;	:	ł	1	ł	ł	:	ł	ł	ł	;	:	1	:
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Tooele	:	1	ł	ŧ	ł	1	I	:	ł	1	ł	1	1	;	:	1	:
	Utah	:	1	1	I	ł	ł	ł	ł	I	1	ž	ł	ł	:	:	:	;
	Wasatch	1	ł	1	:	I	;	:	1	:	1	;	:	:	:	1	1	:
$ \mbox{m Region} \mbox{m Region} \mbox{m Region} \mbox{m Region} \mbox{m Region} m 1 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 $	REGIONAL TOTALS	1		:	1	:	1	:			I	1	1	1	1	2	1	1
	Southern Region										:	:					1	
	Beaver	:	ł	1	ł	ł	i	1	:	ł	ł	I	r	:	ł	ł	1	ĩ
	Garfield	I	I	ł	ł	ł	1	1	1	I	ł	1	ł	1	:	ł	1	1
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Iron	1	1	ł	1	;	1	1	1	I	ı	1	1	ł	ł	I	1	I
	Kane	1	1	ł	ł	ł	1	I	1	:	:	1	1	I	:	1	ł	I
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Millard	I	1	I	ł	:	1	1	1	:	I	ł	ł	;	ł	:	1	ł
ngton $ -$ <t< th=""><th>Plute</th><th>1</th><th>1</th><th>ł</th><th>1</th><th>:</th><th>:</th><th>1</th><th>:</th><th>:</th><th>1</th><th>ł</th><th>1</th><th>ł</th><th>1</th><th>1</th><th>ı</th><th>1</th></t<>	Plute	1	1	ł	1	:	:	1	:	:	1	ł	1	ł	1	1	ı	1
	Sevier	ł	I	1	I	1	1	I	I	:	1	1	ł	ł	:	1	ł	:
Z2 Z2 102 4.84 Z2 90 132 176 192 368 109 180 45 101 146 stern Region 1 2 2.2 102 4.64 2.2 90 132 176 192 368 109 180 45 101 146 stern Region 1 2 2 30 132 176 12 368 109 180 45 101 146 stern Region 2 2 200 132 176 12 3 200 25 4 0 0 4 stern Region 2 2 200 132 33 123 2 80 325 921 47 24 37 113 value 2 33 123 2 36 36 30 37 144 946 50 24 37 113 astern Region 4 33 31	Washington	ł	I	ł	ł	1	I	1	1	:	1	:	I	1	:	1	1	1
Val TOTALS 22 102 4.64 22 90 132 176 192 368 109 46 101 148 stern Region - - - - - 1 2 2 00 0 0 1 - 148 148 stern Region - - - - 2 30 0 0 0 0 4 0 0 0 4 ref - - - - - - 2 3 123 5.48 33 123 - 5 340 325 921 47 24 37 101 astern Region - - - 5 280 340 325 946 50 24 37 101 astern Region - - - - - - - - - - - - - - - 108 108 108 101 - 108 101 </th <th>Wayne</th> <th>22</th> <th>22</th> <th>102</th> <th>4.64</th> <th>22</th> <th>6</th> <th>132</th> <th>176</th> <th>192</th> <th>368</th> <th>109</th> <th>180</th> <th>45</th> <th>10</th> <th>1</th> <th>146</th> <th>252</th>	Wayne	22	22	102	4.64	22	6	132	176	192	368	109	180	45	1 0	1	146	252
astern Region t 1 1 2 2.00 0 0 0 1 2 3 200 25 4 0 0 0 4 ine	REGIONAL TOTALS	22	22	102	4.64	22	8	132	178	192	368	109	180	\$	1 0	1	146	252
t 1 1 1 2 2.00 0 0 1 2 3 200 25 4 0 0 0 4 ine	Northeastern Region					I	I	ŗ	•		•		ļ		. (1	•	;
The control of the co	Daggeft	-	**	2	2.00	0	0	0	-	N	r)	200	<u>97</u>	•	•	0	¢	99
26 26 26 37 5.48 33 123 22 80 260 340 325 921 47 24 37 108 Val. TOTALS 26 26 139 5.35 33 123 - 59 262 321 444 946 50 24 37 114 astern Region	Duchesne	ł	I	I	1	1	I	1	1 ;	1	1	: }	1	1 ;	1	: }	1	1
VAL TOTALS 26 26 139 5.35 33 123 - 59 262 321 444 946 50 24 37 111 astern Region 	Uintah	25	5 2	137	5.48	33	123	22	8	280		325	921	47	24	21	801	316
astern Region astern Region	REGIONAL TOTALS	26	26	139	5.35	33	123	t	20	282	321	¥	848	20	24	37	111	289
Image: Second	Southeastern Region																	
an	Carbon	I	1	1	1	ſ	1	I	1	:	1	ł	1	1	ł	ł	1	1
1 1 <th>Emery</th> <th>ł</th> <th>I</th> <th>ł</th> <th>1</th> <th>ł</th> <th>:</th> <th>;</th> <th>1</th> <th>:</th> <th>1</th> <th>ł</th> <th>1</th> <th>1</th> <th>I</th> <th>1</th> <th>1</th> <th>1</th>	Emery	ł	I	ł	1	ł	:	;	1	:	1	ł	1	1	I	1	1	1
	Grand	ł	1	ł	;	1	ł	1	1	1	1	;	1	1	;	1	;	ı
84 84 312 4.43 65 235 219 368 607 975 165 1,288 98 131 52 281	San Juan	1	1	1	1	I	1		1	1	1	:	1	I	1	1	1	1
84 84 372 4.43 65 235 219 368 607 975 165 1,288 98 131 52 281	REGIONAL TOTALS	1	ł	1	1	:	1	1	1	:	1	1	1	1	1	1	:	1
	STATE TOTALS	2	2	372	4.43	65	235	219	368	607	975	165	1,288	8 6	131	52	281	347

Table 2. Sage grouse summer inventory, 1997.

Region and					glon and Yea	Year						Average
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	94	108	167	267	161	143	92	94	ł	48	177	
Cache	ł	ł	1	500	ł	ł	ł	ł	1	1	ł	
Davis	I	ł	I	ł	1	1	ł	ł	ł	ł	ł	
Morgan	500	ł	117	1	I	ł	ł	ł	1	ł	I	
Rich	116	153	I	100	67	125	217	433	41	222	129	
Summit	50	ł	I	ł	ł	ł	ł	ł	1	ł	ł	
Weber	ł	ł	ł	ł	;	ł	ł	ł	1	ł	I	
REGIONAL TOTALS	115	135	156	235	93	132	133	145	40	175	115	136
Central Region												
Juab	ł	380	250	196	ł	450	450	1	:	ł	I	
Sait Lake	I	ł	ł	ł	ł	1	ł	ł	ł	ł	ł	
Sanpete	ł	ł	1	ł	I	1	ł	ł	1	ţ	ł	
Tooele	207	100	194	110	287	300	300	156	1	ł	I	
Utah	I	150	1	1	1.200	1	1	1	1	ł	I	
Wasatch	209	300	1	667	. 1	129	350	1	1	ł	I	
REGIONAL TOTALS	209	135	177	166	344	148	357	156	1		1	211
Southern Region												
Beaver	35	ł	I	I	ł	1	ł	ł	ł	ł	I	
Garfield	144	144	6	9	129	1	ł	ł	ł	ł	ł	
iron	198	146	155	264	100	1	I	1	ł	ł	l	
Kane	400	ł	ł	ł	ł	1	ł	ł	ł	ł	I	
Millard	I	ł	ł	ł	ł	ł	I	I,	ł	ł	ł	
Piute	38	ł	I	ł	ł	1	ł	ł	ł	ł	1	
Sevier	ł	1	525	ł	500	I	I	ł	ł	ł	I	
Washington	ł	ł	i	I	ł	ı	ł	ł	ł	ł	1	
Wayne	455	86	1	168	478	43	ł	ł	1	ł	109	
REGIONAL TOTALS	216	127	135	154	128	40	ł	1	ł	129	109	133
Northeastern Region												
Daggett	124	181	433	533	650	190	ł	600	263	244	200	
Duchesne	137	288	217	600	160	ł	260	I	ł	ł	1	
Uintah	192	164	148	352	114	278	500	263	192	300	325	
REGIONAL TOTALS	159	172	155	374	161	246	380	532	418	332	444	293
Southeastern Region												
Carbon	150	ł	56	33	200	33	200	ł	I	ł	1	
Emery	ł	ł	I	1	1	ł	ł	ł	ł	I	1	
Grand	ł	ł	ł	ł	1	31	ł	50	ł	1	ł	
San Juan	I	200	50	50	200	50	ł	ſ	ł	ł	ł	
REGIONAL TOTALS	150	200	55	88	160	34	200	50	I	}	1	117
			,	•		5) >		i		

Table 4. Trend of average brood size for sage grouse, 1987-97.	rage bro	ood siz	e for sa	ge grou	ISE, 13(37-97.						
Region and						Year						Average
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	3.88	33.80	3.80	4.25	3.71	4.17	3.67	5.00	I	6.00	2.67	
Cache	;	ł	I	5.00	I	ł	ł	ł	I	I	1	
Davis	ł	ł	ł	I	ł	I	I	I	ł	ł	ł	
Morgan	5.00	I	7.00	ł	ł	I	I	ł	1	ł	1	
Rich	5.00	4.27	ł	2.00	3.00	4.54	2.40	4.33	5.33	5.19	3.96	
Summit	5.00	4.00	ł	ł	1	ł	ł	ł	ł	ł	ł	
Weber	I	ł	ł	ł	I	1	ł	1	ł	ł	ł	
REGIONAL TOTALS	4.82	4.17	4.30	3.67	3.36	4.36	3.09	4.50	5.33	5.26	3.64	4.29
Central Region												
Juab	ł	6.33	4.00	4.75	ł	ł	ł	ł	I	ł]	
Salt Lake	I	ł	ł	1	ł	ł	ł	ł	ł	1	ł	
Sanpete	ł	ł	ł	1	1	ł	ł	ł	ł	ł	:	
Tooele	3.60	3.50	3.00	3.13	3.83	3.00	3.00	4,00	1	ł	ł	
Utah	I	1	1	1	12.00	1	ł	ł	ł	1	ł	
Wasatch	6,94	6.00	I	6.67	ł	5,50	7.00	ł	I	I	ļ	
REGIONAL TOTALS	5.42	4 29	3.40	4.27	5.00	4.67	4.00	4.00	,	:		4 38
Southern Region												
Beaver	5.00	ł	ł	ł	;	1	ł	ł	ł	ł	ł	
Garfield	4.00	4.60	1	4.00	6.00	ł	ł	1	1	:	1	
Iron	4.64	3.67	4.66	6.00	5.00	1	I	1	1	I	1	
Kane	4.00	ł	ł	1	ł	ł	1	1	ł	ł	I	
Millard	I	ł	ł	ł	ł	ł	I	ł	ł	ł	1	
Piute	ł	1	1	1	I	ł	I	ł	ł	ł	ł	
Sevier	ł	7.00	ł	ł	ł	1	ł	1	ł	:	1	
Washington	I	I	I	1	I	ł	I	ł	I	1	ł	
Wayne	6.14	6.29	ł	4.30	5.00	3.82	I	I	I	I	4.64	
REGIONAL TOTALS	4.89	4.89	4.66	4.82	5.60	3.82	ł	I	I	4.80	4.64	4.78
Northeastern Region												
Daggett	4.00	4.45	4.30	6.00	2.00	6.00	ł	6.00	4.20	3.67	2.00	
Duchesne	3.54	3.60	2.17	6.00	4.00	I	2.00	1	ł	ł	I	
UIntah	5,55	4.05	5,15	5.60	2.00	4.75	5.00	5.25	4.17	5.86	5.48	
REGIONAL TOTALS	4.59	4.09	4.58	5.63	2.57	4.89	4.50	5.32	4.18	5.20	5.35	4.56
Southeastern Region												
Carbon	1.50	ł	4.50	ł	6.00	2.67	4.00	1	1	1	1	
Emery	I	ł	I	ł	ł	1	ł	I	ł	1	ł	
Grand	1	1	1	I	ł	4.00	ł	2.00	ł	ł	1	
San Juan	1	1	2.00	1	2.00	2.00	ł	ł	I	ł	I	
REGIONAL TOTALS	1.50	I	3.67	I	4.00	2.80	4,00	2.00	ł	1	I	4.07
STATE TOTALS	4.86	4.29	4.37	4.71	3.70	4.21	3,68	4.86	4.43	5,19	4.43	4.43

ľ

ø

						Year						Average
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	475	694	431	303	102	146	118	413	4	ł	300	
Cache	0	ო	ł	126	ł	ł	ł	I	ł	ł	ł	
Davis	ł	1	ł	1	1	ł	1	I	1	I	1	
Morgan	19	1	100	1	ł	ł	ł	ł	1	I	ł	
Rich	364	287	ł	41	304	261	89	ł	73	474	1,529	
Summit	480	300	ł	1	ł	1	ł	ł	ł	ł	ł	
Weber	1	ł	ł	ł	ł	ţ	1	1	ł	I	ł	
REGIONAL TOTALS	251	271	64	78	155	197	103	613	57	554	753	234
Central Region												
Juab	1	150	311	323	ł	367	367	ł	ł	ł	;	
Salt Lake	1	ł	I	ł	ł	ł	1	1	ł	1	ł	
Sanoete	i	ł	I	ł	ł	1	ł	ł	ł	ł	ł	
Tooele	742	150	252	150	414	100	133	263	ł	1	ł	
Utah	ł	125			1.300	ł	ł	ł	1	ł	1	
Wasatch	792	27	19	209	1	254	45	ł	ł	1	1	
REGIONAL TOTALS	776	118	154	200	338	248	100	263	1	1	1	275
Southern Region												
Beaver	575	1	1		I	ł	ł	I	ł	ł	ł	
Garfield	275	452	207	661	320	ł	ł	I	ł	ł	l	
Iron	1,331	1,517	1,000	589	400	I	ł	I	ł	ł	1	
Kane	500	I	1	ł	1	ľ	1	ł	ł	1	I	
Millard	1	1	1	ł	ł	I	ł	ł	1	ł	1	
Piute	1	I	1	1	ł	I	1	ı	ł	ł	ł	
Sevier	1	417	I	ł	150	829	ł	I	ł	1	1	
Washington	1	ł	ł	ł	ł	ł	I	ł	ł	ł	1	
Wayne	793	542	1	006	511	411	1	I	ł	I	252	
REGIONAL TOTALS	732	574	705	781	314	402	ł	1	1	234	252	535
Northeastern Region												
Daggett	492	474	168	585	1,000	580	1	1,400	829	326	86	
Duchesne	382	141	123	350	81	1	006	1	1	ł	I	
UIntah	642	830	1,191	566	1,500	523	3,000	636	388	224	316	
REGIONAL TOTALS	509	589	741	533	356	539	1,600	1,463	429	226	289	698
Southeastern Region												
Carbon	28	1	125	685	60	377	377	I	ł	ł	1	
Emery	I	ł	1	ł	ł	ł	1	I	ł	1	ł	
Grand	ł	I	1	ł	1	567	ł	240	ł	1	1	
San Juan	1	I	150	120	100	300	I	1	J	ł	I	
REGIONAL TOTALS	28	1	129	386	100	239	26	80	ł	1	I	209
		2	000	010								

.

Table 6.	Summary of sage grouse hunter	success	and distribution of harvest and
	hunter pressure by region and	county,	1997.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS	BIRDS	BIRDS PER	S OF	* OF HARVEST
NORTHERN REGION	Galaria da Contra da	,	ala			
BOX ELDER	38	1,413	1,163	0 00	12 00	
CACHE	20	706	-	0.82	13.99	25.93
DAVIS	20 2 ∢	20	124 20	0.18	7.00	2.78
MORGAN	3	124	20 41	1.00	0.21	0.46
RICH	33	914	228	0.33	1.23	0.93
SUMMIT	9	1,039	228 124	0.25 0.12	9.05	5.09
WEBER	19	893	124 602	0.12	10.29 8.85	2.78 13.43
REGIONAL TOTALS	124	5,113	2,307	0.45	50.62	13.43 51.40
CENTRAL REGION						
JUAB	0	0	0	0.00	0.00	0.00
SALT LAKE	5	478	20	0.04	4.73	0.46
SANPETE	3	103	62	0.60	1.03	1.39
TOOELE	6	249	124	0.50	2.47	2.78
UTAH	9	394	187	0.47	3.91	4.17
WASATCH	9	498	103	0.21	4.94	2.32
REGIONAL TOTALS	32	1,725	498	0.29	17.08	11.11
SOUTHERN REGION						
BEAVER	1	41	0	0.00	0.41	0.00
GARFIELD	1	20	0	0.00	0.21	0.00
IRON	1	20	0	0.00	0.21	0.00
KANE	0	0	0	0.00	0.00	0.00
MILLARD	1	20	41	2.00	0.21	0.93
PIUTE	0	0	0	0.00	0.00	0.00
SEVIER	8	353	270	0.76	3.50	6.02
WASHINGTON	0	0	0	0.00	0.00	0.00
WAYNE	14	436	207	0.48	4.32	4.63
EGIONAL TOTALS	26	893	519	0.58	8.85	11.58
ORTHEASTERN REGION						
DAGGETT	3	62	41	0.67	0.62	0.93
DUCHESNE	9	540	124	0.23	5.35	2.78
UINTAH	18	1,413	789	0.56	13.99	17.60
EGIONAL TOTALS	30	2,016	956	0.47	19.96	21.30
OUTHEASTERN REGION	<u>^</u>	^	-		A A A	5 • • •
CARBON	0	0	0	0.00	0.00	0.00
EMERY	3	83	103	1.25	0.82	2.32
GRAND	2	145	83	0.57	1.44	1.85
SAN JUAN	1	62	20	0.33	0.62	0.46
EGIONAL TOTALS	6	290	207	0.71	2.88	4.63
UNKNOWN	2	62	0	0.00	0.62	0.00
TATE TOTALS	220	10,101	4,489	0.44	100.00	100.00

* Total hunter trips from questionnaire returns.

Table 7. Summary of sage grouse bagged per hunter-day by region and county, 1990-97.

Region and					Year			_
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	0.92	0.55	0.96	0.79	0.79	0.40	0.57	0.82
Cache	0.58	0.32*	0.55*	0.21*	0.50*	0.27*	0.57*	0.18
Davis	0.25*	0.18*	0.60*	0.08*	0.00*	0.59*	2.33*	1.00
Morgan	0.33*	0.93*	0.71*	0.00*	0.19*	0.00*	1.92*	0.33
Rich	0.85	1.01	0.82	0.79	0.53	0.47	0.56	0.25
Summit	0.77*	0.67*	1.38*	0.56*	0.44*	0.13*	0.80*	0.12
Weber	0.43*	0.34*	0.55*	0.50*	0.08*	0.15*	1.28*	0.67
REGIONAL TOTALS	0.75	NOTION AND A CONTRACT OF A CONTRACT OF A	0.80	0.59	0.54	0.37	-0.84	0.45
Central Region	-							
Juab	0.20*	0 5/*	0 17*	0 22+	0 71+	1 00+	4 00+	0 00
Salt Lake	0.20*	0.54* 0.70*	0.17* 0.00*	0.22* 0.20*	2.71* 0.00*	1.89*	4.00*	0.00
Sanpete	1.00*	0.70* 0.44*	0.00*	0.20*	0.00* 0.45*	0.00* 0.20*	0.00* 0.69*	0.04
Tooele	1.15*	0.35*	0.22*	1.07*	1.83*	0.20* 1.00*	0.50*	
Utah	0.39	0.86*	0.96*	0.27*	0.56*	1.00× 0.73*	0.50*	0.50
Wasatch	0.55*	0.47*	0.70*	0.2/*	0.30*	0.73*	0.77^	0.47
REGIONAL TOTALS	0.52	0.53	0.68		0.80 1.16			0.21
(MN31.046111), (LV), (TV), (L1110)		in Carlos an an Andreas ing	. <u></u>			84.V.103. Mil		
Southern Region								
Beaver	0.38	0.29	0.83	1.00	0.47	1.13	0.00	0.00
Garfield	0.74	0.52	0.96	0.90	1.11	0.36	0.50	0.00
Iron	0.58	0.93	0.64	0.53	1.29	0.30	0.00	0.00
Kane	0.54	0.67	0.71	0.00	1.25	1.00*	1.00*	0.00
Millard	3.14*	1.27*	0.80*	4.00*	0.67*	1.58*	1.25*	2.00
Piute	0.50	1.00	1.71	1.13	0.78	0.14	0.50	0.00
Sevier	1.08	0.39	0.49	0.36	0.54	0.04	0.93	0.76
Washington	1.63*	2.00*	1.00*	0.00*	0.00*	0.00*	2.00*	0.00
Wayne	1.04	1.03	0.92	0.66	0.79	0.76	0.46	0.48
REGIONAL TOTALS	0.92	0.78	0.79	0_70	0.81	0.56	0.56	0.58
Northeastern Region								
Daggett	0.73	0.48	0.60	0.67	0.25	0.94	0.43	0.67
Duchesne	1.19	0.67	0.36	1.29	0.00	0.75	0.24	0.23
Uintah	0.87	0.71	0.87	0.73	0.83	0.85	0.62	0.56
REGIONAL TOTALS	0.89	0.68	0.76	0.79	0.72	0.86	0.52	0.47
Southeastern Region								
Carbon	0.29	0.50	0.64	0.36	0.00*	1.71*	0.50*	0.00
Emery	0.20*	0.88*	0.60*	1.00*	0.80*	0.00*	1.50*	1.25
Grand	1.11	0.00	1.33	4.00	1.00*	0.60*	0.03*	0.57
San Juan	0.00*	0.57*	0.00*	0.00*	0.00*	0.00*	1.00*	0.33
REGIONAL TOTALS	0.47	0.59	0.77	0.71	0 . 50	0.56	0.25	0.71
Unknown counties	0.00	0.00	0.00	0.47	0.00	1.00	0.00	0.00

*Closed season.

() Percent of bag per hunter-day in closed areas.

Table 8. Percentage distribution of sage grouse harvest by region and county, 1990-97.

_ ___

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	17.21	12.34	15.50	11,22	20.10	9.81	11.59	25.93
Cache	5.22	2.64*	5.12*	2.45*	3.23*			
Davis	0.26*		1.75*	0.20*	0.00*			
Morgan	0.78*		1.75*	0.00*	0.74*			
Rich	14.99	24.55	15,79	18.57	13.15	8.99	7.31	5.09
Summit	1.30*		1.61*	4.08*	1.99*			2.78*
Weber	2.48*	2.91*	1.75*	2.24*	0.50*	0.82*		13.43
REGIONAL TOTAL	42.24			38.78				appropriet of the second of the
Central Region							a on 1992-1993	
Juab	0.39*	0.97*	0.15*	0.41*	4.71*	4.63*	3.02*	0.00*
Salt Lake	0.00*	0.97*	0.00*	0.20*	0.00*	0.00*	0.00*	0.46*
Sanpete	1.17*	0.97*	0.73*	0.61*	1.24*	1.36*	2.27*	1.39*
Tooele	1.96*	0.97*	1.90*	5.92*	5.46*	2.73*		2.78*
Utah	2.09	1.66*	7.75*	0.61*	2.23*	5.18*	6.80*	4.17*
Wasatch	0.78*		1.02*	1.22*	0.99*	2.18*	1.76*	2.32*
REGIONAL TOTALS	6.39	6.80	11.55	8.98	14.64	16.08	14.86	11.11
Southern Region								
-	0.65		• • •					
Beaver	0.65	0.28	2.19	2.24	2.23	4.63	0.00	0.00
Garfield	7.17	2.36	3.51	3.88	5.21	2.18	1.26	0.00
Iron	1.43	1.94	3.65	4.29	5.46	2.18	0.00	0.00
Kane Millard	0.91	0.28	0.73	0.00	1.24	0.55*	0.50*	0.00*
Piute	2.87*		0.58*	4.08*	1.99*	5.18*	1.26*	0.93*
Sevier	0.65 6.78	2.77	1.75	1.84	3.47	0.27	0.50	0.00
Washington	1.69*	3.05 0.55*	2.92 0.29*	4.08	3.23	0.27	3.35	6.02
Wayne	6.39	10.13		0.00*	0.00*	0.00*	1.51*	0.00*
EGIONAL TOTALS	28.55	24.00	7.02 22.66	6.33 26.74	4.71	6.00	4.03	4.63
EGIONAL TOTALS	40.00	24.UV	22.00	20.14	27.54	21.26	12.60	11.58
lortheastern Regi	ion							
Daggett	3.78	1.39	1.32	1.63	0.50	4.36	0.76	0.93
Duchesne	4.82	2.77	1.46	3.67	0.00	1.64	1.26	2.78
Uintah	11.80	14,98	16.37	13.67	14.64	22.35	11.34	17.60
EGIONAL TOTALS	20.47	19.14	19.15	18.98	15.14	28.34	13,35	21.30
Southeastern Reg	ion							
Carbon		1 00	1 27	0 00	0 00-	5 6 5 2	0	0 000
Emery	0.91 0.13*	1.80	1.32 0.88*	0.82	0.00*			
Grand								
San Juan	1.30	0.00 0.55*	1.17	0.82 0.00*	0.99* 0.00*			
EGIONAL TOTALS					5.535		1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (and the second second
	0 00	0 00	0.00	4 40				
nknown counties		0.00	0.00	4.49	0.00	3.00	0.00	0.00
logod amora	/17 041							
losed areas	(13.81)	(21.36)	(25.28)	(22.43)	(26.07)	(34.35)		

*Closed season

•

()Percent of total harvest in closed areas.

Table 9. Percentage distribution of sage grouse hunting pressure by region and county, 1990-97.

Region and	<u> </u>				Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	14.71	15.16	12.39	9.19	17.40	14.02	14.24	13.9
Cache	7.05	5.61*	7.21*	7.35*	4.39*	6.32*	8.96	7.0
Davis	0.82*	1.03*	2.25*	1.71*	1.01*	3.39*	0.53	0.2
Morgan	1.84*	1.31*	1.91*	1.18*	2.70*	1.23*	4.22	1.2
Rich	13.89	16.46	14.75	15.09	16.89	10.79	9.14	9.0
Summit	1.33*	2.25*	0.90*	4.72*	3.04*	1.23*	1.76	10.2
Weber	4.49*	5.80*	2.48*	2.89*	4.39*	3.08*	8.26	8.8
REGIONAL TOTALS	44.13	47.62	41.89	42.13	49.83	40.06	47.10	50.6
Central Region								
Juab	1.53*	1.22*	0.68*	1.18*	1.18*	1.39*	0.53	0.0
Salt Lake	0.51*	0.94*	0.34*	0.66*	0.00*	0.15*	0.00	4.7
Sanpete	0.92*	1.50*	2.59*	1.18*	1.86*	3.85*	2.28	1.0
Tooele	1.33*	1.87*	2.25*	3.54*		1.54*	1.41	2.4
Utah	4.19	1.31*	6.19*	1.44*	2.70*	4.01*	6.15	3.9
Wasatch	1.12*	1.78*	1.13*	1.71*	0.84*	2.16*	1.93	4.9
REGIONAL TOTALS	9.60	8.61	13.18	9.71	8.62	13.10	12.30	17.0
Southern Region								
Beaver	1.33	0.65	2.03	1.44	3.21	2.31	0.53	0.4
Garfield	7.56	3.09	2.82	2.76	3.21	3.39	1.76	0.2
Iron	1.94	1.40	4.39	5.25	2.87	4.16	2.46	0.2
Kane	1.33	0.28	0.79	0.00	0.68	0.31*	0.35	0.0
Millard	0.72*	1.40*	0.56*	0.66*	2.03*	1.85*	0.70	0.2
Piute	1.02	1.87	0.79	1.05	3.04	1.08	0.70	0.0
Sevier	4.90	5.33	4.62	7.35	4.05	4.01	2.64	3.5
Washington	0.82*	0.19*	0.23*	0.00*	0.00*	0.00*	0.53	0.0
Wayne	4.80	6.64	5.86	6.17	4.05	4.47	6.15	4.3
REGIONAL TOTALS	24.41	20.86	22.07	24.67	23.14	21.57	15.82	8.8
Northeastern Reg	jion							
Daggett	4.09	1.96	1.69	1.57	1.35	2.62	1.23	0.6
Duchesne	3.17	2.81	3.15	1.84	1.01	1.23	3.69	5.3
Uintah	10.73	14.31	14.53	12.07	1.99	14.79	12.83	13.9
REGIONAL TOTALS	17.98	19.08	19.37	15.49	14.36	18.64	17.75	19.9
Southeastern Reg	gion							
Carbon	2.45	2.43	1.58	1.44	1.69	1.08*	0.70	0.0
Emery	0.51*				1.69*	0.31*		0.8
Grand	0.92	0.00	0.68	0.13	0.68	1.54*		1.4
San Juan	0.00*	0.65*				2.00*		0.6
EGIONAL TOTALS	where we approved the second state of the property of the second state of the second s	3.84		1.84				
Mknown counties	0.00	0.00	0.11	6.17	0.00	1.69	0.00	0.6
	(15 04)	100 000		100 100	DF 1C)			
closed areas	(15.94)	(26.29)	(29.85)	(28.48)(25.16)	(35.44)		

*Closed season

()Percent of total pressure in closed areas.

Year	Totai Hunters*	Total Harvest*	Hunter-days Afield	Sage Grouse Per Hunter-Da	Sage Grouse Per Hunt
1951	840	2,458			2.93
1952	678	2,230		_	3.29
953	895	2,581			2.88
954	802	2,510		_	3.13
955	579	1,742		_	3.01
956	495	1,375			2.97
957	470	1,303			2.77
958	567	1,797		_	3.17
959	699	1,875		_	2.68
960	861	2,246		_	2.61
961**	1,078	1,918		_	1.78
962***	2,382	5,352	5,097	1.05	1.89
963	12,366	13,793	15,564	0.89	1.12
964	4,362	6,827	5,807	1.18	1.56
965	3,243	3,881	4,673	0.83	1.30
966	2,612	3,962	4,006	0.99	1.52
967	5,336	5,902 5,089	7,860	0.65	0.95
968	9,115	11,109	13,601	0.85	
969			-		1.22
	12,894	22,282 15,877	20,466	1.09	1.73
970 974	12,036	•	18,506	0.86	1.32
971 970	12,893	20,013	21,509	0.93	1.55
972	13,040	15,983	22,232	0.72	1.23
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	1.61
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	1.57
982	8,997	12,383	15,663	0.79	1.38
983	9,201	14,949	18,467	0.81	1.63
984	8,283	10,921	15,266	0.72	1.32
985	7,586	11,466	14,702	0.78	1.51
986	7,233	11,766	13,992	0.84	1.63
987	7,060	12,673	14,242	0.89	1.80
988	8,499	14,692	19,418	0.76	1.73
989	9,002	13,710	19,373	0.71	1.52
990	9,014	15,784	20,147	0.78	1.75
991	8,018	12,542	18,596	0.67	1.56
992	7,393	12,156	15,781	0.77	1.64
993	6,594	9,311	14,480	0.64	1.41
994	5,133	7,084	10,406	0.68	1.38
995	5,987	7,133	12,615	0.57	1,19
996	5,574	9,220	13,215	0.70	1.65
997	4,178	4,489	10,101	0.44	1.07
otals					•
951-97)	340,043	510,540	614,224	-	-
verage		- <u></u>			
951-96)	7,301	11,001	13,133	0.62	1.80

Table 10. Statewide summary of sage grouse harvest statistics, 1951-97.

* 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.

		All Hunts	All Hunts				ũ	Complete Hunts	ts		
Region and	Total Bartiac	Total	Total	Tota! Birde	Birds/	Complete	Total	Total Hours	Total Birde	Birds/	Birds/ Hunter
Northern Region	Laines		einou	Shild		LIULIS	LIULICIS	SINOL	chila	200	
Box Elder	27	97	383	33	6	27	97	383	33	6	0.34
Cache	ł	1		I	ł	1	ł	ł	¥	}	ł
Davis	ł	ł	ł	I	I	1	1	ł	1	ł	ł
Morgan	ł	ł	1	ł	I	ł	ł	ł	ł	1	ł
Rich	27	65	181	11	9	27	65	181	11	9	0.17
Summit	1	1	1	1	ł	1	ł	ł	I	ł	I
Weber	ł	1	1	1	ł	I	ł	I	I	1	1
REGIONAL TOTALS	54	162	564	4	ø	54	162	564	4	•	0.27
Central Region											
Juab	1	ł	ł	1	ł	1	I	ł	ł	1	ł
Salt Lake	I	ł	1	I	1	ł	ł	1	ł	I	ł
Sanpete	ł	ł	ł	ł	ł	ł	ł	ł	1	ł	ł
Tooele	ł	ł	I	ł	ł	ł	ł	ł	ł	ł	ł
Utah	ł	I	I	ł	ł	ł	ł	I	ł	ł	ł
Wasatch	I	1	:	I	I	I	ł	ł	ł	ł	1
REGIONAL TOTALS	ł	ł	1	6	1	1	1	1	1	I	1
Southern Region											
Beaver	ł	I	ł	1	ł	1	ł	I	ł	ł	ł
Garfield	1	1	I	ł	F	I	ł	ł	I	ł	ł
Iron	ł	1	ł	ł	ł	I	ł	ł	ł	I	ţ
Kane	ł	ł	I	ł	ł	ł	ł	I	ł	Į	ł
Millard	1	ł	1	1	ł	1	ł	I	I	I	ł
Piute	I	1	I	I	ĺ	1	I	ł	1	1	ł
Sevier	I	ł	1	1	1	ł	1	1	ł	ł	ł
Washington	1	I	ł	1	1	ł	1	ł	I	I	1
Wayne	I	69	360	30	8	1	69	360	90	∞	0.43
REGIONAL TOTALS	1	69	360	30	8	1	69	360	90	∞	0.43
Northeastern Region											
Daggett	:	ł	1	I	ł	1	ł	ł	ł	1	ł
Duchesne	1	ł	ł	1	ł	I	1	ł	1	ł	ł
Uintah	1	I	I	1	I	1	1	1	I	ł	1
REGIONAL TOTALS	1	1	1	1	I	1	1	I	1	I	1
Southeastern Region	1	ł	I	1	ł	1	ł	I	I	ł	I
Carbon	I	I	1	I	I	1	ł	I	1	I	ł
Emery	1	I	ļ	1	ł	1	ł	ł	ł	I	1
Grand	1	1	ł	I	ł	ł	ł	1	I	ł	ł
San Juan	I	1	ł	1	I	I	ł	ł	I	1	I
REGIONAL TOTALS	1	1			3	1	1				
			1	l	I	I	1	8	I	1	

	1992		1993		1994		1995	2	1996	4-	1997	
Region and Birds/ Birds/ Birds/ Birds/ Birds/	Bird		Birds/	Birds/	Birds/	Birds/						
County	100 Hr	Hunter										
Northern Region												
Box Elder	19	1.43	18	0.99	21	0.98	23	0.58	14	0.63	6	0.34
Cache	ł	ł	ł	ł	ł	ł	ł	1	1	1	ł	ł
Davis	ł	ł	1	ł	ł	ł	ł	ł	1	ł	ł	ł
Morgan	ł	ł	1	ł	ł	ł	ł	I	ł	:	ł	I
Rich	Ø	0.52	ę	0.28	ø	0.51	17	0.33	14	0.48	9	0.17
Summit	ł	1	I	I	ł	}	1	ł	ł	ł	1	ł
Weber	ł	ł	ł	ł	ł	ł	ł	ł	1	ł	ł	ł
REGIONAL TOTALS	15	0.99	10	0.73	15	0.80	21	0.48	14	0.53	00	0.27
Central Region												
Juab	ł	ł	1	H	ł	ł	ł	ł	I	:	ł	1
Salt Lake	ł	ł	ł	ł	ł	ł	ł	ł	ł	ł	ł	1
Sannete	ł	ł	I	ł	I	1	ł	ł	I	ł	!	1
Tooele	ł	ł	I	ł	ł	ł	ŧ	I	ł	1	ł	I
Utah	ł	I	ł	ł	ł	ł	ł	ł	1	ł	ł	ł
Wasatch	ł	ł	ł	ł	1	ł	ł	I	I	ł	ł	1
REGIONAL TOTALS		1	1	1	1		1	1	1		1	1
Southern Region												
Beaver	ł	ł	ł	ł	ł	1	I	ł	ł	ł	1	1
Garfield	ł	ł	1	ł	ł	1	I	1	ł	1	ł	1
Iron	I	ł	1	ł	ł	ł	Ĭ	ł	ł	ł	ł	ł
Kane	I	I	1	ł	I	I	1	1	ł	ł	ł	ł
Millard	1	ł	1	1	ł	ł	I	1	ł	ł	ł	ł
Piute	ł	I	ł	I	ł	ł	ł	1	ł	1	I	ł
Sevier	ł	ł	1	1	ł	ł	Ĩ	ł	ł	I	ł	1
Washington	ł	1	I	1	ł	1	ł	1	ł	I	1	ł
Wayne	7	0.44	7	0.43	۲	0.30	9	0.42	11	0.49	8	0.43
REGIONAL TOTALS	7	0.44	2	0.43	7	0.30	9	0.42	11	0.49	80	0.43
Northeastern Region												
Daggett	I	1	1	I	I	ł	0	0.00	ł	2	I	1
Duchesne	1	ł	ł	ł	I	ł	I	ł	ł	ł	ł	I
Uintah	26	0.81	50	0.50	23	0.78	27	0.94	1	1	ł	1
REGIONAL TOTALS	26	0.81	50	0.50	23	0.78	16	0.50	E	ł	I	I
Southeastern Region									1	ł	1	1
Carbon	36	1.43	1	1	1	1	ł	I	ł	I	ł	1
Emery	ł	ł	ł	I	ł	ł	I	ł	I	I	ł	1
Grand	30	2.40	17	0.43	I	I	I	1	1	ł	ł	ł
San Juan	I	1	1	ł	ł	1	I	1	1	ł	1	1
REGIONAL TOTALS	32	1.83	17	0.43	F	1	ŀ	ł	1	ł	1	I
		000	4	99 0	11	04 0	4	2 17	-			

l

ľ

ŀ

Î

Table 13. Sex and age composition of harvested sage grouse, 1997.

Region and		Adults			Yearlings			Immatures		Sample	Young/	Young/
County	М	F	Total	М	F	Total	М	F	Total	Size	100 Hens	100 Adults
Northern Region												
Box Elder	2	2	4	0	0	0	12	14	26	30	1,300	650
Cache					_	_		—	—	-		
Davis		-			_	-		_	-		_	
Morgan	-	—	-	-			—		—			-
Rich	3	5	8	1	3	4	8	18	26	38	235	217
Summit	—	—	—	_		—		_	<u> </u>			_
Weber _						_				_	—	
REGIONAL TOTALS	5	7	12	1	3	4	20	32	52	68	520	325
Central Region												
Juab			**		_				-	-	_	_
Salt Lake	_				-							_
Sanpete	_	_	_		_	_	_	_	-	_	—	
Tooele					-					-		-
Utah							_	_	_	_	_	-
Wasatch	_	_			_	_				-		-
REGIONAL TOTALS	_			_	-		_		-			_
Southern Region					•							
Beaver	_	_		_	_	_	_	-		-	_	_
Garfield					-				_	-	<u> </u>	
Iron	_			_	_	_	_	_	-	-		_
Kane		_		_	_	_	_	_				_
Miliard	_				_	_						
Piute	_								_	_	_	
Sevier	_			_	_	_	_	-		-		-
Washington			-		-			_		-	-	_
Wayne	4	8	12	2	12	14	34	40	74	100	370	285
REGIONAL TOTALS	4	8	12	2	12	14	34	40	74	100	370	285
Northeastern Region												
Daggett			_	_	_	_					_	
Duchesne	—			-		_	_	-	-			_
Uintah	_	_		_	_	_			_	_	_	_
REGIONAL TOTALS	_							······	 			 _
Southeastern Region												
Carbon	_	_	_		-		_	_	_	_	_	_
Emery		-			_	_	_		_	_		_
Grand				Ξ	_		_	-		_		
San Juan		-		_	_	_					-	
				-		_			-	-	—	
REGIONAL TOTALS	-	_		-	-		_	_	-			

93-97	
from 19	
Irouse 1	
sage (
arvested	
mposition of h	
ex and age co	
Table 14. S	

.

1993		56	رنه				1991										1001					1001			
Recion and	Ś	+x Ratio %		Yound	Yound		Į.			'ound'	3	Ser Ratio 9			Vanad	242	Deci Dato of	>	V THEFT	1		JSSL Property		_ I.	
County	=	Σ	u.	100H 100A	1004	-	Ŧ	•	HOOT	1004	=	M		INNH		5									10unor
Northern Region	1											E					E			¥ S	=	E	•	HWL	VML
Box Elder	12	80	6	150	ş	1 8	5	8	262	135	6 2	23	4	167		6	8		56	133	8	17	5	1.300	¢£0
Cache	ı	ı	ı	ı	1	t	1	ſ	ı		3	I	I	1			; 1	; r	1	۱ <u>ا</u>	; 1	; 1	3 1	3	ξ i
Davis	1	ı	I	1	1	1	1	ı	ı	;	1	I	ł	1	1		ı		1	I	1	I			
Morgan	ı	ı	1	1	ı	1	,	1	1		t	ı		1		1	ı		ſ	1	1	I	1	. 1	1
Rich	195	1	I	235	178	310	38	62	235		310	8	62	335		75	39	2	36	326	1 g	12	1	į	1 5
Summit	1	I	1	1	ı	1	ı	ſ	ł		1	1		1			; ;			; ,	3 1	5 1	3 :	3	1
Weber	t	1	ı	ı	1	I	1	1	I		t	1				1	. 1				1	I	I	ı	t
REGIONAL TOTALS	369	39	5	150	100	493	1	5	245		173	40		N.		16	17		-	1	1 8	1	1	1	
Central Region								•			4	2				5	5		8		8	3	2	220	325
Juab	ł	1	1	ı	ı	I	I	1	1		:	1				,	1	1		;	I	I	ł		
Satt Lake	1	ſ	ı	1	1	1	ı	I	1	I	1	1	t	1	1		1	1		1		1	1	1	1
Sanpete	ı	1	1	1	ı	ı	ı	r	ı		I	I		1		,					1	1	1	1	I
Tooele	ı	1	1	ı	I	t	I	1	,		1	1		t		,	1	1		1	1		. :	t :	
Utah	1	ı	ı	ı	I	ł	1	1	I		1	1		1		1	I	1	1		•	. 1	1		1
Wasatch	1	ł	1	1	r	ł	1	ı	ł			1		,		,	1	I	. 1		1	1	Ι.	1	1
REGIONAL TOTALS	1	1	1		•		1	:			.	1		1		,					1 1 1	1	•	2	•
Southern Realon																	:					•	3		1
Beaver	ı	1	1	t	1	ı	ı	1	1	ı	ı	1		,		,	I		1	1	1	I	1	;	
Garfleid	ı	1	1	ı	ı	ı	ı	1	ı	1	1	ı	I			,	ı				1	1	1 1		ſ
Iron	66	29	7	189	157	ı	1	ı	ţ	ı	1	I				,	ı			1	r ı	I I	1	1	1
Kane	ı	ı	I	1	1	1	ı	1	1		1	ſ		1		,			. 1	. 1			I	1	1
Millard	ł	I	1	ł	1	I	I	ı	1		1	ı					1		; ;			t :	ł	1	1
Plute	1	ı	ı	1	,	,	ı	ı	ſ		1	I		. 1		1			[.	1		1	t	1	I
Sevier	ı	1	ı	ţ	I	ı	ı	1	ı		. 1	1		1		1		11		I 1		3	I	ı	1
Washington	t	ſ	ı	I	ı	ı	ı	1	1		ı	1		1						1	1	I	1	1	ſ
Wayne	179	ð	99	155	124	161	32	59	156	115	101	20	18	44	1 1			1 2	1 2		١Ş	1 Ş	13	1 6	1 ફ
REGIONAL TOTALS	238	32	8	163	3	461	32	8	156		10	3					2 EF		35	170	315	04	8 8	170	107
Northeastern Region																						2	3		207
Daggett	t	1	ı	ı	I	1	1	5	1		ı	ł		1		,	,	1		1	:	I	ı	1	I
Duchesne	1	ı	1	1	1	ı	ı	1	1		1	I		1		,	ı	1	,	ı	t	I	1	1	1
Uintah	~	0	100	100	100	1	L	t	1		2	3		126		,	r	I	,	,	1	1	1	1	1
REGIONAL TOTALS	2	0	100	100	100	1	1	r	1	1	72	2 0	8	126	- 68				,	1			1		
Southeastern Region																									
Carbon	ŧ	27	2	ŝ	8	1	ı	1	1		1	1				,	I	1		1		I	1	1	,
Emery	1	ı	I	I	ł	ı	ı	ſ	ı	I	1	1	1	I	1	1	ı	1	1	1	1	ı	I	1	ı
Grand	1	ı	ı	ı	1	ı	I	1	1		t	1				,	I			1	1	ı	1	1	1
San Juan	1	I	1	I,	t		1	I	I			ı					1		1	1	I	ı	I	1	
REGIONAL TOTALS	ŧ	27	۶	ŝ	8	•	I	,			r	1				.	1	ļ	1	1	1		.		
STATE TOTALS	620	50	5	155	116	654	86	5	216		3	43	ľ			5	11		21	484	160	96	10	1991	
													Ì				5				3	20	5	240	3



Above average precipitation throughout Utah during April - June may have severely impacted forest grouse production.

Total harvest decreased 49 percent from 1996. Total hunters and days afield also decreased. Ruffed grouse comprised 47.63 percent of the harvest while blue grouse comprised 52.37 percent.



Brood Counts

Ruffed Grouse

Results of the annual random brood survey for 1997 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 1997 compared to 1996 and the previous 10-year average (1987-1996) follow:

	<u>1997</u>	Percent change from 1996	Percent change from <u>Average</u>
Total ruffed grouse observed	41	-18	-29
Young per 100 adults	425	+49	+54
Mean brood size	6.75	+125	+92
Ruffed grouse observed per 100 hours	336	-87	+11
Total hours effort	12.5	+525	-92

Very little effort was expended to collect brood count data in 1997. Most data is collected opportunistically as broods are observed.

Blue Grouse

Results of the annual random brood survey for 1997 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 1997 compared to 1996 and the 10-year average (1987-96) follow:

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Total blue grouse observed	106	+121	-56
Young per 100 adults	253	-25	0
Mean brood size	3.82	-8	+4
Blue grouse observed per 100 hours	663	-45	+158
Total hours effort (forest grouse)	16	+300	-91

The 1997 summer surveys on blue grouse indicated that production decreased 25 percent from 1996, but was the same as the long-term average. Efforts to collect blue grouse brood information increased 300 percent in 1997, but were limited.

Harvest

Hunter Questionnaire

Results of the 1997 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, 1963-1997 are listed in Table 17. Harvest statistics for 1997 compared to 1996 and the 34-year average follow:

		Percent change from	Percent change from
	<u>1997</u>	<u>1996</u>	<u>Average</u>
Forest grouse hunters	10,206	-31	-29
Forest grouse harvested	31,198	-49	-12
Hunter-days afield	39,304	-37	+5
Forest grouse per hunter-day	0.79	-18	-16
Forest grouse per hunter	3.06	-26	+29
Percent ruffed grouse	47.63	-2	-22
Percent blue grouse	52.37	+2	-6
Percent unidentified			

Total harvest decreased 49 percent from 1996 and was 12 percent below average. Overall, hunter success (grouse per hunter-day) decreased 18 percent in 1997, and remains 16 percent below average. The number of grouse harvested per hunter was 29 percent below average. Figure 1. Statewide trends of forest grouse harvest statistics, 1963-97.

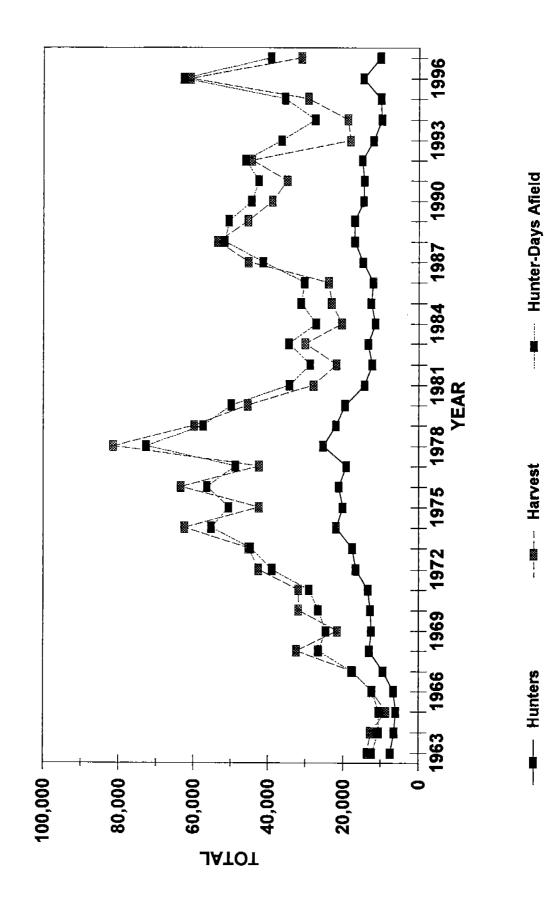
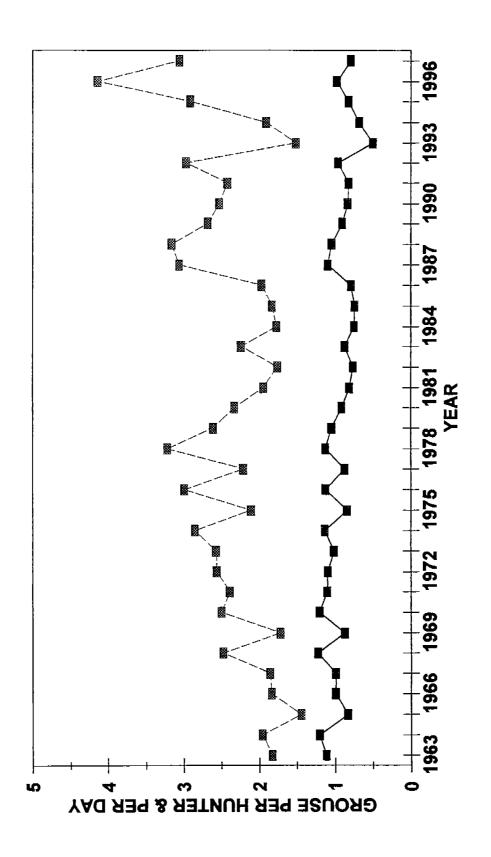


Figure 2. Statewide trends of forest grouse hunter success rates, 1963-97.



--■-- Grouse/Hunter-Day --⊠--- Grouse/Hunter

Field Bag Checks

A summary of field bag check data for 1997 is shown in Table 18. Hunter success trends determined via this method are shown in Table 19.

Results of the 1997 survey compared to 1996 and the 10-year (1987-96) average follow:

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Total hunters checked	226	-27	-57
Total hours hunted	404	-67	-79
Forest grouse p er hunter (complete hunts)	0.27	-77	-65
Forest grouse bagged per 100 hours	15	-52	-48
Average hours per hunter-day (complete hunts)	1.79	-54	-47
Hours hunted per grouse bagged (complete hunts)	6.52	+99	+42

Opening weekend success reflected total season statewide harvest. Forest grouse per hunter decreased 77 percent from 1996.

Sex and Age Composition of the Harvest

Sex and age composition of the harvest as determined from wings is shown in Table 20 and 21.

Following are data derived from ruffed grouse wing surveys in 1997 compared to 1996:

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Sample Size	43	-90	
Percent Males			
Percent Females			
Young per 100 adults	169	-28	
Young per 100 hens (adult)			

Following are data derived from blue grouse wing surveys in 1997 compared to 1996:

	<u>1997</u>	Percent change from 1996	Percent change from <u>Average</u>
Sample Size	42	-90	
Percent Males	60	+46	
Percent Females	40	-32	
Young per 100 adults	367	+40	
Young per 100 hens (adult)	1,100	+126	<u> </u>

Table 1. Ruffed grouse summer inventory, 1997.	e sum	mer inve	intory.													
		Distinct				_						:				
Region and	-				& Adufts		Adults w/o		Total	Young/			Hours of Effort			Birds/
County	#	Adults	Young	Brood	Adults	Young	Young	Adults	Young	100 Adults	Miles	Vehicle	Horse	Walk	Total	100 Hr
Northern Region																
Box Elder	1	1	1	ERR	ł	I	1	0	•	ERR	46	9	;	4	9	0
Cache	:	I	:	ERR	ł	ł	1	•	•	ERR	1	1	:	1	0	ERR
Davis	ł	1	:	ERR	ł	1	ł	•	•	ERR	:	ł	;	:	•	ERR
Morgan	1	1	1	ERR	1	:	I	0	0	ERR	ł	I	;	ł	0	ERR
Rich	3	•	26	8,67	e	~	-	7	33	471	1	1	ł	1	o	ERR
Summit	:	1	1	ERR	ł	1	1	0	o	ERR	1	1	;	:	0	ERR
Weber	:	1	1	ERR	ł	1	ł	Ģ	0	ERR	1	1	:	1	0	ERR
REGIONAL TOTALS	5	~	56	8.67	~	2	**	-	33	471	46	6	Þ	4	9	8
Central Region																
Juab	:	:	:	ERR	ł	1	ł	0	0	ERR	:	:	;	1	0	ERR
Salt Lake	I	:	;	ERR	1	:	ł	ò	Ċ	ERR	I	:	:	ł	0	ERR
Sannete	1	ţ	:	ERR	ł	1	:	0	0	ERR	:	;	1	1	0	ERR
Tonele	I	1	;	ERR	1	:	:	Ċ	0	ERR	:	;	1	1	0	ERR
l Itah	I	:	1	ERR	1	1	ł	0	0	ERR	:	:	;	1	•	ERR
Wasatch	١	;	1		:	i	ł	-	0	ERR	1	1	1	1	•	ERR
DEGIONAL TOTALS				FRR	6	6	0	-	-	ERR	•	0	•	0	- -	ERR
		,			,	•	,		,					,		
Southern Kegion Boarter	1	1	I		ł	ļ	ł	c	c	A A A A A	:	ł	:	I	c	5RR
DEAVER	ł	ł	F		ł	I	ł	•	• •			l	l	l	• c	
Garrield	I	:	I		f	1	ł		-		1	1	:	1		
lron	:	ł	1	ERR	:	I	ł		•	ERK	I	ł	ł	ł	•	EKK
Kane	:	1	1	ERR	ł	1	:	0	0	ERR	I	1	I	:	0	ERR
Millard	1	:	:	ERR	I	1	1	0	Ģ	ERR	:	1	ł	:	0	ERR
Piute	ł	I	:	ERR	I	1	1	0	0	ERR	:	ł	1	1	•	ERR
Sevier	1	I	1	ERR	1	1	1	0	0	ERR	ł	1	I	1	0	ERR
Washington	ł	1	ł	ERR	I	1	1	0	0	ERR	I	I	ı	1	•	ERR
Wayne	ľ	I	2	ERR	I	1	1	0	0	ERR	1	I		:	0	ERR
REGIONAL TOTALS	1	1	1	ERR	I	I	;	1	1	ERR	1	I	;	1	1	ERR
Northeastern Region																
Daggett	-	+	-	1,00	0	•	0	*	-	<u>1</u> 00	ŝ	0.5	•	2	2.6	80
Duchesne	I	1	ł	ERR	1	1	1	•	•	ERR	ł	ł	1	1	•	ERR
Uintah	1	1	1	ERR	1	1	1	0	0	ERR	1	I	1	1	•	ERR
REGIONAL TOTALS	÷	÷	÷	1,00	0	0	0	+		100	50	0.6	0	2	2.5	8
Southeastern Region																
Carbon	I	1	1	ERR	1	1	1	0	0	ERR	ł	I	1	1	0	ERR
Emery	ı	1	ł	ERR	ł	ı	1	¢	Ċ	ERR	1	ł	1	1	0	ERR
Grand	1	1	1	ERR	;	1	ł	•	•	ERR	ł	1	ł	ł	0	ERR
San Juan	1	:	1	ERR	:	1	1	0	0	ERR	1	1	1	:	0	ERR
REGIONAL TOTALS	1	1	:	ERR	ł	ł	1	1	L	ERR	I	1	1	1	1	ERR
STATE TOTALS	-	-	27	6.75	0	-	-	~	đ	425	51	6,5	0	9	12.5	336

Table 1. Ruffed grouse summer inventory, 1997.

Region and						Year						Average
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	150	60	I	300	260	9 1	ı	ł	I	ł	;	
Cache	300	267	300	160	225	167	1	:	:	233	I	
Davis	I	136	1	:	1	217	1	I	1	1	ł	
Morgan	:	ł	:	:	1	1	ł	ł	ł	ł	1	
Rich	:	787	ł	:	ł	;	ł	ł	ł	1	474	
						l	ł	ł	ł	ł	F	
	3	1	300	450	2	ŧ	:	!	ł	1	ł	
Weber	380	220	;	1	700	467	:	:	:	1	ł	
REGIONAL TOTALS	337	14	300	300	366	277	1	1	;	233	471	277
Central Region												
Juab	1	I	1	1	1	;	1	1	1	ł	:	
Salt Lake	0	1	1	1	I	I	1	ł	ł	1	:	
Sanpete	1	:	ł	1	300	400	:	ł	1	:	1	
Tooele	:	:	1	;	ł	1	ł	ł	ł	;	1	
Utah	320	300	300	1	:	100	100	I	:	1	ł	
Wasatch	:	;	I	280	I	:	1	:	1	400	1	
REGIONAL TOTALS	320	300	300	280	900	250	100	3	3	400		284
Southern Region												
Beaver	:	ł	ł	ł	ł	ł	1	:	1	ł	;	
Garfield	:	:	ı	ł	ł	;	ł	1	ł	1	:	
Iron	ł	:	ı	1	I	ł	1	ł	1	1	1	
Kane	ł	ł	1	ł	1	ł	1	ł	:	1	1	
Millard	ł	ł	ł	ł	1	1	1	ł	1	:	I	
Plute	1	1	ı	1	ł	1	1	;	1	1	1	
Sevier	1	450	I	I	I	I	1	ł	ł	ł	ł	
Washington	1	I	I	1	ĩ	I	ł	1	ł	ł	:	
Wayne	ł	;	I	333	1	:	ł	ł	ł	1	1	
REGIONAL TOTALS	1	450	1	333	1	1	1	1	1	1	1	392
Northeastern Region												
Daggett	I	;	150	:	1	1	:	994	I	1	100	
Duchesne	I	1	ş	600	1	1	I	I	1	1	1	
Jintah	400	;	267	600	1	:	1	1	1	1	1	
REGIONAL TOTALS	400	I	250	600	1	1	I	400	1	1	1 00	413
Southeastern Region									ł			
Carbon	ł	:	1	1	1	:	1	:	!	ł	I	
Emery	300	1	:	:	1	1	1	I	1	1	I	
Grand	I	ł	1	1	1	1	ł	ł	:	1	1	
	ł	ł	1	1	I	F	ł	ł	:	1	1	
REGIONAL TOTALS	300	1	I	1	1	1	1	1	I	1	:	300
CTATE TOTAL D		444				ļ						

Region and						Year						<u>Average</u>
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	3.00	3.00	I	3.00	6,00	4 .00	1	1	3	;	:	
Cache	3.14	4.00	3.00	3.00	3.00	6.00	1	I	1	2.33	;	
Davis	:	4.00	1	1	1	4.33	1	I	ł	1	:	
Morgan	1	:	ł	1	3,33	:	1	1	1	ł	1	
Rich	;	1	3.00	;	1	1	ł	:	1	I	8.67	
Summit	5.00	1	3.00	4.50	4.00	:	;	;	;	ł	I	
Weber	4.75	3.67	1	1	7,00	4.67	;	:	I	1	I	
REGIONAL TOTALS	3.93	3.61	3.00	3.75	4.13	4.50	;	ł	:	2.33	8.67	3.61
									1			
Juab	1	1	:	1	ł	:	3	ł	ł	ł	1	
Salt Lake	1	1	ł	;	ł	ł	ł	ł	:	;	1	
Sannete	ł	:	ł	;	3.00	4.00	ł	ł	;	1	I	
Looele	3	:	;	;	1	;	;	;	;	;	!	
		200		ł		1 00						
can · · · · · ·	9,64	2.00	2.00	; ;	:	22.	3	1	:	; ;	1	
wasatch	•	:	1	9	:	Ŧ	1	1	1	0.4	1	-
REGIONAL TOTALS	3.20	3.00	3.00	4.70	3.00	2.50	0.1	1	1	4.00	1	3.05
									I			
Deaver	1	:	I	1	ł	1	ł	1	1	ł	ł	
Garfield	1	1	I	i	I	1	1	:	1	I	!	
lron	I	1	I	1	ł	:	ł	ł	1	ł	I	
Kane	:	ł	ł	1	1	1	;	:	1	1	1	
Millard	1	ł	1	:	ł	}	ł	1	1	1	1	
Piute	1	ł	1	1	ł	ł	ł	ł	;	1	ł	
Sevier	1	4,60	1	1	1	ł	ł	;	:	;	1	
Washington	ł	ł	1	i	I	:	1	ł	ł	1	1	
Wayne	1	1	1	6.00	1	I	1	1	:	;	1	
REGIONAL TOTALS	1	4.50	1	6.00	;	1	1	1	1	ł	1	4.75
Northeastern Region									:			:
Daggett	1	:	3.00		1	I	1	4.00	;	:	1.00	
Duchesne	1	;	4.00	6.00	ł	1	I	:	1	t	ł	
Uintah	4.00	1	4.00	6.00	ľ	1	1	:	;	1	1	
REGIONAL TOTALS	4.00	1	3.75	6.00	1	1	1	4.00	:	1	1.00	4.44
Southeastern Region									1			
Carbon	I	ł	1	1	1	1	1	ł	;	I	1	
Emery	3.00	1	1	ł	ł	:	I	ł	ł	1	I	
Grand	1	1	I	1	I	:	I	ł	ł	ł	1	
San Juan	1	ł	1	ţ	1	1	1	1	:	:	ł	
REGIONAL TOTALS	3.00	1	1	1	I	:	1	1	1	ŧ	1	3.00

Region and				ļ		Year						Average
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	3	90	ł	75	3 9	\$	I	1	1	1	0	
Cache	58	17	46	ю	76	ŧ	2	1	1	:	1	
Davis	ł	11	1	ţ	I	76	;	1	1	;	I	
Morgan	ł	ł	:	1	50	1	1	1	ł	ł	1	
Rich	;	20	ł	ł	ł	1	1	:	:	:	1	
Summit	006	:	6	9	20	1	1	1	1	;	1	
Weher	267	178			8	170	ł	1	1	ł	I	
REGIONAL TOTALS	Y.	63	66	13	2						100	30
Central Device	3	\$		2		F			ı			2
									1			
Juab	;	1	ł	1	1	:	ł	:	ł	1	ł	
Salt Lake	ł	ł	:	:	1	1	1	:	:	I	1	
Sanpete	ł	:	1	:	12	38	:	:	;	ł	;	
Tonele	3	;	;	:	:	1	ł	;	;	;	1	
litah	50	133	133	: 1		Ę	PT	: 1		!		
diaratak Maratak		2	2	-	I	2	<u>r</u>	ł	ł		1	
aluit Movel total o		:	:	2	•	: :	1	:			1	ļ
REGIONAL TUTALS	5	133	133	28	6	13	~	:	ı	1,000	1	169
Southern Region									ı			
Beaver	1	ſ	ł	1	:	;	:	;	1	:	:	
Garfield	I	1	:	ł	1	ł	1	1	1	:	:	
Iron	;	ł	:	1	1	ł	:	ł	ł	:	!	
Kane	I	ł	1	1	I	1	!	ł	I	:	ł	
Millard	1	ł	:	;	1	1	ŧ	ł	I	I	;	
Piute	1	1	ł	ł	i	:	:	ł	I	ł	ł	
Sevier	ł	138	1	I	3	1	ł	ł	ł	3	1	
	I	2	I	ł	I	ł	ł	ł	I	ł	I	
wasnington	1	1	1	ł	1	1	ł	;	ł	I	I	
wayne	:	:	:	ı	1	1	1	I	1	ł	;	
REGIONAL TOTALS	1	138	1	433	1	1	1	I	1	I	I	286
Northeastern Region									1			
Daggett	1	I	109	ł	I	1	:	20	:	1	80	
Duchesne	4	ł	33	176	1	1	:	:	1	1	I	
Uintah	89	ł	28	180	ł	1	i	1	1	1	I	
REGIONAL TOTALS	38	1	38	105	:	1	1	20		1	80	53
Southeastern Region	1											
Carbon	1	1	1	ł	;	ł	ŗ	ł	ł	I	1	
Emery	400	1	:	1	I	1	1	1	1	1	1	
Grand	:	:	1	I	1	1	1	;	1	1	;	
San Juan	: 1											
TOTAL CONTRACT												007
REGIUNAL IUIALS	₹	1	1	1	1	ı	ı	•	1	1	1	9
C	;	•	1		•	•	•	•				

Distinct		Distinct			Mixed Young											
Region and		Broods		Mean	& Adults	_	Adults w/o	Total	Total	Youna/	Vehicle		Hours of Effort			Birds/
County	*	Adults	Young		Adults	Young	Young		_	100 Adults	Miles	Vehicle	Horse	Walk	Total	100 Hr
Northern Region					1											
Box Elder	:	1	:	ERR	I	1	ł	0	0	ERR	46	9	1	4	9	•
Cache	1	:	1	ERR	1	:	ł	0	0	ERR	1	I	;	1	o	ERR
Davis	1	I	:	ERR	;	ł	ł	0	0	ERR	ł	I	:	1	0	ERR
Morgan	1	;	:	ERR	ł	1	ł	0	0	ERR	;	I	;	ł	0	ERR
Rich	7	9	9	4.29	ю	ņ	4	15	33	220	:	ł	:	I	0	ERR
Summit	1	:	:	ERR	;	1	;	0	0	ERR	:	ł	1	ł	0	ERR
Weber	3	'n	16	6.33	0	œ	•	~	24	300	1	1	:	1	•	ERR
REGIONAL TOTALS	9	6	46	4.60	7	11	7	23	57	248	46	9	0	+	ę	800
Central Region																
Juab	1	I	1	ERR	ł	ł	ł	•	•	ERR	:	ł	;	ł	0	ERR
Salt Lake	1	1	;	ERR	ł	ł	ł	0	0	ERR	:	:	:	1	0	ERR
Sanpete	1	;	1	ERR	ł	;	ł	0	0	ERR	;	1	;	1	0	ERR
Tooele	ł	ţ	ł	ERR	1	ł	ł	0	0	ERR	:	I	;	1	0	ERR
Utah	ł	1	1	ERR	J	1	;	•	0	ERR	:	:	;	1	0	ERR
Wasatch	I	1	;	ERR	:	I	1	0	0	ERR	:	:	;	1	0	ERR
REGIONAL TOTALS	0	0	0	ERR	0	•	0	0	0	ERR	-	0	0	-	0	ERR
Southern Region																
Beaver	I	ł	1	ERR	:	ł	ł	0	0	ERR	1	ł	1	1	0	ERR
Garfield	;	I	I	ERR	I	ł	;	•	c	ERR	1	1	ı	:	0	ERR
kron	1	1	1	ERR	1	1	ł	•	0	ERR	1	ł	1	ł	0	ERR
Kane	:	,	ſ	ERR	ł	1	ł	0	0	ERR	•	ł	ł	1	0	ERR
Millard	1	1	;	ERR	ł	1	ł	0	¢	ERR	;	I	:	1	0	ERR
Plute	1	I	1	ERR	ł	1	I	0	0	ERR	1	1	ł	1	0	ERR
Sevier	:	ł	I	ERR	ł	1	ł	0	¢	ERR	:	ł	1	3	0	ERR
Washington	ł	,	ı	ERR	ſ	I	ł	0	0	ERR	ł	1	1	I	0	ERR
Wayne	1	1	1	ERR	1	1	1	•	0	ERR	1	1	j	I	•	ERR
REGIONAL TOTALS	ł	1	I	ERR	1	1	1	I	1	ERR	1	1	1	1	1	ERR
Northeastern Region																
Daggett	4	+	r	1.75	0	•	0	4	-	175	~	━-	67	2	Ģ	183
Duchesne	ı	1	1	ERR	I	1	1	0	0	ERR	ł	ł	1	I	•	ERR
Uintah	1	1	;	ERR	1	1	1	¢	0	ERR	:	1	1	t,	0	ERR
REGIONAL TOTALS	4	4	-	1.75	0	0	0	-	7	176	7	t	3	2	8	183
Southeastern Region			l					,								
Carbon	1	1	1	ERR	:	1	ł	0	0	ERR	ł	1	:	1	0	ERR
Emery	:	1	ł	ERR	ł	1	I	0	0	ERR	:	1	1	I	•	ERR
Grand	ę	3	5	4.00	ø	0	•	••	72	400	:	I	ł	I	0	ERR
San Juan	I	1	1	ERR	1	2	E -	0	0	ERR	1	1	1	1	-	ERR
REGIONAL TOTALS	0	m	5	4.00	-	0	0		12	400	-	•	0	0	-	ERR
STATE TOTALS	17	16	65	3.82	1	=	-	90	76	Z53	23	~	m	6	9	663

Table 5. Blue grouse summer inventory, 1997.

Region and						Year		•				Average
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	:	;	700	ŧ	1 00	200	1	173	ł	1	.)	
Cache	300	363	267	300	600	8	1	:	1	400	,	
Davis	222	248	200	480	260	180	ł	ł	ł	ł	1	
Morgan	433	ł	ł	ł	I	ł	1	1	1	;	1	
Rich		ł	;	:	600	400	ł	1	:	•	220	
Summit	500	1	200	178	155	:	:	I	1	i	1	
Weber	380	400	1	1	186	100	;	1	ļ	I	300	
REGIONAL TOTALS	BR	279	244	282	216	202		173	1	400	348	974
Central Region											2	
				700				140	I			
	1	!	ł	2	1	1	ļ	ł	ł	:	:	
Salt Lake	I	:	ł	ł	I	ł	;	1	1	:	ł	
Sanpete	600	ł	8	:	;	:	1	ł	;	1	1	
[ooele	218	650	650	276	231	300	;	40	ł	ł	;	
Utah	256	267	267	286	170	1	I	75	1	1	:	
Wasatch	;	;	:	;	1	100	100		ł	;	;	
DEGIONAL TOTAL C	979	100	347	200	104	8		H.				100
	213			700		3	8	2	ı	I	1	
southern Region									1			
Seaver	561	109	I	1	I	1	1	:	1	1	;	
Garfield	160	1	23	ł	1	1	1	:	ł	ł	1	
ron	300	1	I	ł	ł	ł	1	:	I	1	;	
Kane	475	260	I	ł	ł	;	1	;	1	1	ł	
Millard	426	60	ł	ł	;	1	I	ł	1	:	:	
Plute	ł	ı	:	ł	:	ł	ł	į	I	1	1	
Sevier	150	96	I	I	1	;	1	;	I	1	ł	
Washington	533	1	ł	ł	ł	ł	ł	:	I	1	3	
Wayne	350	375	1	1	246	ł	1	ł	I	I	I	
REGIONAL TOTALS	230	118	23	1	246	ł	1	:	1	:	:	164
Northeastern Region												
Daggett	331	318	364	233	1	800	I	1	100	460	176	
Duchesne	129	190	:	600	ł	800	200	1	1	1	1	
lintah	2009	233	138	an a	1		605	1	360	300	1	
REGIONAL TOTALS	305	384	268	223		100		1	287	330	176	2KG
Southeastern Region									i			
Carbon	1	ı	ł	I	1	500	1	1	I	I	I	
Emerv	400	100	:	J	ł	ł	1	1	I	ł	ı	
Grand	1	227	300	1	200	286	289	200	1	ł	400	
San Juan	300	213	300	ł	500	233	167	;	ł	ł	ł	
GIONAL TOTALS	146	200	75	1	360	284	240	200	1	1	907	213
CTATE TOTAL C	200	207	3.6	176	026	- 16	100	407	707	376	757	080
	100	AV1	750	•	0 7 7	2	1 2 1	201	107	000	207	707

-

Table 7. If and of average prood size for blue grouse, 1987-97.	age bro	od size	e for blu	re grou	ise, 198	7.97.						
Region and						Year						Average
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	i	I	7.00	3,20	4.00	5.00	ł	3.80	;	;	1	
Cache	3.67	3,63	3.60	3.70	4.50	4.00	ł	3	ł	4.00	I	
Davis	2,83	4.00	4.50	6,60	4.33	3.00	ł	:	1	;	:	
Morgan	4.33	ł	ł	I	:	1	ł	1	:	1	:	
Rich		1	:	1	6.00	6.00	I	:	1	1	4.29	
Summit	5.00	1	3,00	4.00	3.40	1	I	:	:	I	I	
Weher	4.75	4.00	1	1	3.26	;	;	3	1	;	6 33	
DEGIDAIA! TOTA! C	00		30 5	1 20		194		000		2	1 20	104
Central Region	0.0		0.00		00.4	2		2.00		2	no.t	10.4
Jush Jush				4 G C				02.6	ł			
Juab C-11 -1-2	:	ł	;	00.7	1	1	ł	00.0	;	:	1	
Salt Lake	:	ł	I	1	ł	1	;	1	ł	:	1	
Sanpete	6.00	1	2.00	ł	ł	:	ł	1	1	}	1	
Tooele	3.43	6.00	6.00	3.13	3.60	3.00	1	2.00	1	1	ł	
Utah	3.45	6.00	5.00	5.00	3.22	:	1	3.00	ł	}	:	
Wasatch	;	;	;	!	1	1.00	3.00	I	;	;	1	
REGIONAL TOTALS	3.62	4,67	4,20	4.00	3.36	2.00	3.00	3.00	:	;	1	3.48
Southern Region									:			
Beaver	4.00	4.00	:	ł	:	1	I	1	:	1	1	
Garfield	3,29	1	:	I	ł	;	1	:	1	J	:	
iron	3.50	ł	ł	:	(1	:	:	:	;	:	
Kane	4.75	4.00	:	;	;	;		;	1	;	;	
Millard	1 25	1 50	1	3.00					;]		1	
Ditto			ł		ł	ł	ļ	ł	1	I	;	
riute Servier	4 87	" "	;			1		1	ł	1	1	
		1.44	1	1	ł	:	1	:	1	1	1	
Washington	5.33	I ¦	1	ł	:	:	1	:	1	:	:	
Wayne	3.50	3.75	;	1	4.67	:	:	ŧ	1	1	1	
REGIONAL TOTALS	4.12	2.71	1	3.00	4.57	1	:	1		1	1	3.60
Northeastern Region												
Daggett	4.71	3,20	3.89	3.50	1	6.00	I	;	1.00	4.60	1.75	
Duchesne	2.50	2.60	1	6.00	ł	8.00	2.00	1	1	1	1	
Uintah	5.00	3.50	2.20	1	1	1	6.00	ł	3.50	4.00	1	
REGIONAL TOTALS	4.52	3.00	3.29	4.33	ł	6.67	4.00	1	2.67	4.14	1.75	4.08
Southeastern Region												
Carbon	:	1	1	ł	ł	6.00	ı	:	I	:	;	
Emery	¥.00	4.09	I	t	ł	ł	1	1	1	:	1	
Grand	1	2.78	3.00	ı	2.8	4,38	3.17	4 .00	1	1	4.00	
San Juan	3.00	3.00	3.00	1	5.0	3.60	2,60	1	1	:	ł	
REGIONAL TOTALS	3.50	2.93	3.00	I	3.60	4.13	2.90	4.00	1	:	4.00	3.42
STATE TOTALS	9 .4	3.22	3.61	4.19	3.88	4.29	2.91	3.69	2.67	4.13	3.82	3.66

r Region er		1000	1000	1000	1004	000	1001	1001	4005	4000	1007	AVELAGE
orthern Region ox Eider Iche Ivis organ ch	122	226L	1989	DARL	LRAL	ZRRL	SARL	TAR	ORAL			OP JRAL
x Eider che vis rgan ch												
che vis srgan	•	1	1	200	5	136	1	760	I	:	0	
vis organ ch	7	56	114	108	165	4	1	ł	I	ł	;	
organ sh	225	300	120	428	25	113	1	ł	1	5	ł	
ngan th					2							
÷	50	ł	2		1	1	ł	1	ł	:	;	
	o	•	I	1	175	6/	1	ł	ł	1	;	
Summit	900	1	5	1 00	55	1	1	:	ł	1	1	
Meher	287	99		3	Ч¥	ą	I	1	1	1	I	
	100	3	dr	433	5	6		760			S	107
GRANAL TUTALS	201	B	R	55	2	3	•	100	1	3	ş	0
Central Region									1			
	0	ł	I	800	1	1	ł	600	:	:	;	
	100			•								
-	N ⁴	1	ł	ł	ł	1	1	1	1	;	1	
Sanpete	1,400	:	4	4	;	23	25	ł	;	1	1	
	206	1.000	1.000	233	ł	200	;	350	:	:	;	
2		Lac	196		070)) 1						
	R77	201	200	2	212	1	1	900	1	1	;	
Wasatch	0	ł	1	ł	1	σ	150	1	:	1	1	
	194	683	72	75	180	24	29	1	1	:	1	180
Southern Paulon									;			
	976	101										
seaver	e/1	164	I	:	;	1	I	ł	1	:	1	
Garfield	195		:	1 00	!	ł	ł	ł	1	:	ļ	
ron	1.200		:	I	1	1	1	:	ł	1	1	
Kane	383	127	3	1	ł	:	1	;	ł	;	ł	
		į										
vinard	070	M	,	ł	ł	I	1	1	1	ł	ļ	
Plute	1	1	ł	ł	ł	1	1	;	1	1	ł	
Sevier	276	738	Į	ł	ł	1	ł	ł	1	1	1	
Washington	950	1	1	:	1	ł	ł	1	1	1	I	
Wavne	460	475	1	ł	2.260	I	1	1	I	I	:	
DEGIONAL TOTAL C	200	710		000	2 2KD				,	1	3	763
	200			200	2,500							
Northeastern Kegion			1.00									
Daggett	1,266	230	285	286	ł	1,400	1	I	200	248	183	
Duchesne	3	121	I	175	1		120	1	ı	ı	:	
Uintah	99	37	818	320	ł		3.500	50	160	57	:	
DEGIONAL TOTALS	286	120	5	8	1	800	370	~	187	137	183	191
Southeastern Region						1						
Carhon	1	1	;	1	1	240	2	1	1	1	;	
						Ì						
	2000	1	: 2	J		: 3	1	1	1	ł	1	
Grand	200	1	22	1	200	25	6/9	Ì	1	1	ł	
San Juan	9	1	ş	1	20	0 09	467	ł	I	1	1	
REGIONAL TOTALS	84	1	85	1	450	† 80	113	+ 87	ı	1	1	333
STATE TOTALS	197	166	6	93	112	130	\$	384	167	167	663	163

Table 9. Summary of effort expended on forest grouse brood counts, 1997.

County Miles Vehicle Horse Walk Total Northern Region Box Elder 46 6 - 4 10 Cache - - - - 0 Davis - - - 0 Morgan - - - 0 Rich - - - 0 Summit - - - 0 Weber - - - 0 Summit - - - 0 Suppete - - - 0 Salt Lake - - - 0 Sampete - - - 0 Tooele - - - 0 Wasatch - - - 0 Region Beaver - - 0 Region Beaver - - 0	Region and	Vehicle		Hours of Effort		
Northern Region 46 6 - 4 10 Cache - - - 0 0 Davis - - - 0 0 Morgan - - - 0 0 Rich - - - 0 0 Summit - - - 0 0 Weber - - - 0 0 Satt Lake - - - 0 0 Satt Lake - - - 0 0 Tooele - - - 0 0 0 Wasatch - - - 0 0 0 0 REGIONAL TOTALS 0 0 0 0 0 0 0 Region - - - - 0 0 0 Region Region - - - <th>County</th> <th>Miles</th> <th>Vehicle</th> <th></th> <th>Walk</th> <th>Total</th>	County	Miles	Vehicle		Walk	Total
Cache - - - - 0 Davis - - - 0 Morgan - - - 0 Rich - - - 0 Summit - - - 0 Weber - - - 0 Juab - - - 0 Satt Lake - - - 0 Sanpete - - - 0 Tocele - - - 0 Wasatch - - - 0 Southern Region - - - 0 Beaver - - - 0 REGIONAL TOTALS 0 0 0 0 Southern Region - - - 0 Beaver - - - 0 Iron - - - 0 Iron - - - 0 Piute	Northern Region					
Cache - - - 0 Davis - - - 0 Morgan - - - 0 Rich - - - 0 Summit - - - 0 Weber - - - 0 Weber - - - 0 Juab - - - 0 Satt Lake - - - 0 Sanpete - - - 0 Tooele - - - 0 Vasatch - - - 0 REGIONAL TOTALS 0 0 0 0 Southern Region - - - 0 Beaver - - - 0 Iron - - - 0 Iron - - - 0 Regionalization - - - 0 Washington -	Box Elder	46	6	_	4	10
Davis - - - - 0 Morgan - - - 0 Rich - - - 0 Summit - - - 0 Weber - - - 0 REGIONAL TOTALS 46 6 0 4 10 Central Region - - - 0 0 Juab - - - - 0 Sanpete - - - 0 0 Tooele - - - 0 0 0 Wasatch - - - 0 0 0 0 Southern Region - - - - 0 0 0 0 Southern Region - - - - 0 0 0 0 Garfield - - - - 0 0 0 0 Washington - - - - </td <td>Cache</td> <td>-</td> <td>_</td> <td>_</td> <td>- -</td> <td></td>	Cache	-	_	_	- -	
Morgan - - - - - 0 Rich - - - - 0 Summit - - - 0 Weber - - - 0 REGIONAL TOTALS 46 6 0 4 10 Central Region - - - 0 0 Juab - - - 0 0 SattLake - - - 0 0 Tooele - - - 0 0 Utah - - - 0 0 0 Wasatch - - - - 0 0 0 Beaver - - - - 0 0 0 Kane - - - - 0 0 0 Wayne - - - - 0 </td <td>Davis</td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td>-</td>	Davis	-	-		-	-
Rich - - - - - 0 Summit - - - - 0 Weber - - - - 0 REGIONAL TOTALS 46 6 0 4 10 Central Region Juab - - - 0 Salt Lake - - - - 0 Sanpete - - - - 0 Tooele - - - 0 0 Wasatch - - - 0 0 REGIONAL TOTALS 0 0 0 0 0 Southern Region - - - - 0 Reaver - - - 0 0 0 Southern Region - - - 0 0 Reaver - - - 0 0 Southern Region - - - 0 0 Wane -	Morgan	_	_	_	-	-
Summit - - - - - 0 Weber - - - 0 0 0 0 Region Juab - - - 0	Rich	-	_	_		-
Weber 0 REGIONAL TOTALS 46 6 0 4 10 Central Region Juab - - - - 0 Salt Lake - - - - 0 0 Sampete - - - - 0 0 Tooele - - - - 0 0 0 Utah - - - - 0 0 0 0 Wasatch - - - - - 0 <td< td=""><td>Summit</td><td></td><td>-</td><td>_</td><td>_</td><td>-</td></td<>	Summit		-	_	_	-
REGIONAL TOTALS 46 6 0 4 10 Central Region Juab - - - - 0 Juab - - - - 0 0 Sanpete - - - - 0 0 Tooele - - - - 0 0 0 Wasatch - - - - 0 0 0 0 Wasatch - - - - 0 0 0 0 0 Wasatch - - - - 0 0 0 0 0 Southern Region - - - - 0 0 0 0 0 Iron - - - - - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 <td>Weber</td> <td>-</td> <td></td> <td>_</td> <td>_</td> <td>-</td>	Weber	-		_	_	-
Central Region Juab - - - 0 Salt Lake - - - 0 Sanpete - - - 0 Sanpete - - - 0 Tocele - - - 0 Utah - - - 0 Wasatch - - - 0 REGIONAL TOTALS 0 0 0 0 Southern Region Beaver - - - 0 Kane - - - 0 0 0 Iron - - - - 0 0 Kane - - - - 0 Washington - - - 0 0 Wayne - - - - 0 REGIONAL TOTALS - - - - 0 Region - - - - 0 0 Sout	REGIONAL TOTALS	46	6	0	4	-
Juab - - - - 0 Sanpete - - - 0 Tooele - - - 0 Utah - - - 0 Wasatch - - - 0 Wasatch - - - 0 Beaver 0 0 0 0 Southern Region - - - 0 Beaver - - - 0 Iron - - - 0 Iron - - - 0 Rarfield - - - 0 Iron - - - 0 Wather - - - 0 Plute - - - 0 REGIONAL TOTALS - - - 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Duchesne - - - - 0	Central Region					
Salt Lake - - - - 0 Sanpete - - - 0 0 0 Tooele - - - 0 0 0 0 Wasstch - - - - 0 0 0 0 Wasstch - - - - 0 0 0 0 Southern Region - - - - 0 0 0 0 Beaver - - - - 0 0 0 0 0 Iron - - - - 0 0 0 0 0 0 Iron - - - - 0 <td></td> <td>_</td> <td>-</td> <td></td> <td>_</td> <td>n</td>		_	-		_	n
Sanpete - - - - 0 Tooele - - - 0 0 Utah - - - 0 Wasatch - - - 0 REGIONAL TOTALS 0 0 0 0 Beaver - - - 0 Garfield - - - 0 Iron - - - 0 Iron - - - 0 Iron - - - 0 Kane - - - 0 Plute - - - 0 Plute - - - 0 Wayne - - - 0 REGIONAL TOTALS - - - 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Duchesne - - - 0 0 REGIONAL TOTALS 5 0.5 0 </td <td>Salt Lake</td> <td>_</td> <td>_</td> <td></td> <td>_</td> <td>-</td>	Salt Lake	_	_		_	-
Tocele - - - 0 Utah - 0 0 0 Wasatch - 0 0 0 0 REGIONAL TOTALS 0 0 0 0 0 0 0 Beaver - - - - 0 0 0 Garfield - - - - 0 0 0 Iron - - - - 0 0 0 0 Kane - - - - 0 0 0 0 Willard - - - - 0 0 0 0 Sevier - - - - 0 0 0 0 Washington - - - - 0 0 0 0 REGIONAL TOTALS 5 0.5 0 2 2.5 5 0 2 2.5 5 <td>Sanpete</td> <td></td> <td>-</td> <td>_</td> <td>-</td> <td>-</td>	Sanpete		-	_	-	-
Utah - - - - 0 Wasatch - - - 0 0 0 REGIONAL TOTALS 0 0 0 0 0 0 Beaver - - - - 0 0 0 Garfield - - - - 0 0 0 Iron - - - - 0 0 0 0 Kane - - - - 0 0 0 0 Willard - - - - 0 0 0 0 Sevier - - - - 0 0 0 0 Washington - - - - 0 0 0 0 REGIONAL TOTALS - - - - 0 0 0 0 Northeastern Region - - - - 0 0 0 Southeastern Region			_			-
Wasatch - - - - 0 </td <td>Utah</td> <td></td> <td>-</td> <td>_</td> <td>_</td> <td>+</td>	Utah		-	_	_	+
REGIONAL TOTALS 0 0 0 0 0 Southern Region Beaver - - - 0 0 0 Beaver - - - - - 0 0 0 Beaver - - - - - 0 0 0 Garfield - - - - 0 0 0 0 0 Iron - - - - - 0 <	Wasatch	-		_	_	
Southern Region - - - - 0 10 <t< td=""><td>REGIONAL TOTALS</td><td>0</td><td>0</td><td></td><td>-</td><td></td></t<>	REGIONAL TOTALS	0	0		-	
Beaver - - - 0 Garfield - - - 0 Iron - - - 0 Kane - - - 0 Millard - - - 0 Piute - - - 0 Sevier - - - 0 Washington - - - 0 Wayne - - - 0 REGIONAL TOTALS - - - - Daggett 5 0.5 0 2 2.5 Duchesne - - - 0 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region - - - 0 0 RegionAL TOTALS 5 0.5 0 2 2.5 Southeastern Region - - - 0 0 Grand - - - - 0			_ •	V		
Garfield - - - 0 Iron - - - 0 Kane - - - 0 Millard - - - 0 Piute - - - 0 Piute - - - 0 Sevier - - - 0 Washington - - - 0 Wayne - - - 0 REGIONAL TOTALS - - - 0 Northeastern Region - - - 0 Duchesne - - - 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region - - - 0 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region - - - 0 Grand - - - 0 San Juan -		_	_	-	_	0
Iron 0 Kane - 0 Millard 0 Piute - 0 Sevier - - 0 Washington 0 Wayne - 0 REGIONAL TOTALS - - 0 Northeastern Region - - 0 Daggett 5 0.5 0 2 2.5 Duchesne - - - 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region - - - 0 Carbon - - - 0 0 Emery - - - 0 0 San Juan - - - 0 0		_	_	_	_	-
Kane - - - 0 Millard - - - 0 Piute - - - 0 Sevier - - - 0 Washington - - - 0 Wayne - - - 0 REGIONAL TOTALS - - - 0 REGIONAL TOTALS - - - 0 Northeastern Region - - - 0 Uintah - - - 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region - - - 0 Carbon - - - 0 Emery - - - 0 Grand - - - 0 San Juan - - - 0			_	_		-
Millard 0 Plute - 0 Sevier - 0 Washington 0 0 Wayne 0 0 REGIONAL TOTALS 0 Northeastern Region 0 Uintah 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region 0 Carbon - 0 Emery - 0 Grand - - 0		_	_	_		-
Plute - - - 0 Sevier - - - 0 Washington - - - 0 Wayne - - - 0 REGIONAL TOTALS - - - 0 Northeastern Region - - - - - Daggett 5 0.5 0 2 2.5 Duchesne - - - 0 Uintah - - - 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region Carbon - - - 0 Emery - - - 0 0 San Juan - - - 0 0			_	_		-
Sevier - - - 0 Washington - - - 0 Wayne - - - 0 REGIONAL TOTALS - - - 0 Northeastern Region - - - - Daggett 5 0.5 0 2 2.5 Duchesne - - - 0 Itintah - - - 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region - - - 0 Emery - - - 0 Grand - - - 0 San Juan - - - 0		_	_		-	-
Washington - - - 0 Wayne - - - 0 REGIONAL TOTALS - - - 0 Northeastern Region - - - - 0 Daggett 5 0.5 0 2 2.5 Duchesne - - - 0 Initiah - - - 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region - - - 0 0 Emery - - - 0 0 Grand - - - 0 0 San Juan - - - 0 0		_	_	_	-	•
Wayne - - - 0 REGIONAL TOTALS - - - 0 Northeastern Region - - - - - Daggett 5 0.5 0 2 2.5 Duchesne - - - 0 Uintah - - - 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region - - - 0 0 Carbon - - - 0 0 0 2 2.5 Southeastern Region - - - 0 <td></td> <td>_</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td>		_	-	-	-	-
REGIONAL TOTALS - 0 0 2 2.5 5 Duchesne - - - 0 0 2 2.5 5 0 2 2.5 5 0 2 2.5 5 Southeastern Region - - - 0 0 2 2.5 5 0 2 2.5 5 0 2 2.5 5 0 2 2.5 5 0 2 2.5 5 0 2 2.5 5 0 2 2.5 5 0 2 2.5 5 0 2 2.5 5 0 2 2.5 5 0 2 2.5 5 0 2 2.5 5 0 2 2.5 7 0 2 2.5 2.5	Wayne	_	_	_		-
Northeastern Region 5 0.5 0 2 2.5 Duchesne - - - 0 <td< td=""><td>REGIONAL TOTALS</td><td></td><td></td><td></td><td></td><td></td></td<>	REGIONAL TOTALS					
Daggett 5 0.5 0 2 2.5 Duchesne - - - 0			. –			<u> </u>
Duchesne - - - - 0 Uintah - - - 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region - - - 0 Carbon - - - 0 Emery - - - 0 Grand - - - 0 San Juan - - - 0		5	0.5	0	2	9 E
Uintah - - - 0 REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region - - - 0 Carbon - - - 0 Emery - - - 0 Grand - - - 0 San Juan - - - 0		- -		v	_	
REGIONAL TOTALS 5 0.5 0 2 2.5 Southeastern Region - - - 0 2 2.5 Carbon - - - - 0 0 2 2.5 Emery - - - - 0 <t< td=""><td></td><td>-</td><td>-</td><td>-</td><td></td><td></td></t<>		-	-	-		
Southeastern Region 0 Carbon 0 Emery 0 Grand 0 San Juan 0			-			-
Carbon - - 0 Emery - - 0 Grand - - - 0 San Juan - - 0		Ű	<u>¢.0</u>	<u> </u>	2	2.3
Emery 0 Grand 0 San Juan 0						•
Grand — — — — 0 San Juan — — — — 0		-		—	_	
San Juan			-	-	-	-
v		-	-	-	-	-
					-	
REGIONAL TOTALS						
STATE TOTALS 51 6.5 0 6 12.5	STATE TUTALS	51	6.5	0	6	12.5

Table 10.

Summary of blue grouse hunter success and distribution of harvest and hunting pressure by region and county, 1997.

COUNTY NORTHERN REGION BOX ELDER CACHE	BIZB*	AFTERD	BAGGED	HUMTER-DAY	PRESSURE	HARVEST
BOX ELDER	10					
	10					
CACHE		935	602	0.64	4.66	3.69
	49	3,949	3,388	0.86	19.69	20.74
DAVIS	12	1,018	685	0.67	5.08	4.20
MORGAN	10	665	561	0.84	3.32	3.44
RICH	9	623	644	1.03	3.11	3.94
SUMMIT	11	727	644	0.89	3.63	3.94
WEBER	20	1,413	1,247	0.88	7.05	7.63
REGIONAL TOTALS	121	9,332	7,773		46.53	
CENTRAL REGION						
JUAB	10	581	415	0.71	2.90	2.54
SALT LAKE	2	83	103	1.25	0.41	0.64
SANPETE	15	1,122	665	0.59	5.60	4.07
TOOELE	3	228	103	0.45	1.14	0.64
UTAH	36	2,764	1,725	0.62	13.78	
WASATCH	16	1,060	1,018	0.96	5.29	
REGIONAL TOTALS	82	5,840	4,032	0.69	29.12	24.68
SOUTHERN REGION						
BEAVER	3	228	270	1.18	1.14	1.65
GARFIELD	2	124	62	0.50	0.62	
IRON	7	290	332	1.14	1.45	2.04
KANE	1	20	41	2.00	0.10	0.25
MILLARD	7	270	228	0.85	1.35	1.40
PIUTE	3	187	290	1.56	0.93	1.78
SEVIER	21	1,330	1,205	0.91	6.63	7.38
WASHINGTON	2	62	41	0.67	0.31	0.25
WAYNE	1	41	20	0.50	0.21	
REGIONAL TOTALS	47	2,556	2,494	0.98	12.75	15.27
NORTHEASTERN REGION						
DAGGETT	2	103	41	0.40	0.52	0.25
DUCHESNE	9	685	332	0.48	3.42	2.04
UINTAH	16	997	1,018	1.02	4.97	6.23
REGIONAL TOTALS	27	1,787	1,392	0.78	8.91	8.52
SOUTHEASTERN REGION						
CARBON	2	103	145	1.40	0.52	0.89
EMERY	4	145	103	0.71	0.73	0.64
GRAND	3	103	166	1.60	0.52	1.02
SAN JUAN	3	187	228	1.22	0.93	1.40
REGIONAL TOTALS	12	540	644	1.19	2.69	3.94
UNKNOWN	0	0	0	0.00	0.00	0.00
STATE TOTALS	289	20,057	16,337	0.81	100.00	100.00

*Total hunter trips from questionnaire returns.

REGION AND	SAMPLE	HUNTER-DAYS	BIRDS	BIRDS	S OF	the second se
COUNTY	SIZE*	AFIELD			PRESSURE	HARVEST
NORTHERN REGION						
BOX ELDER	12	1,226	1,143	0.93	6.37	7.69
CACHE	49	3,616	2,577	0.71	18.79	17.34
DAVIS	13	976	581	0.60	5.08	
MORGAN	16	1,143	1,351	1.18	5.08	3.92
RICH	12	727	665	0.91	3.78	9.09
SUMMIT	17	1,226	1,039	0.85	6.37	4.48
WEBER	22	1,787	1,787	1.00	9.29	6.99 12.03
REGIONAL TOTALS	141	10,704	9,145	0.85	55.62	61.54
CENTRAL REGION						
JUAB	3	228	103	0.45	1.19	0.70
SALT LAKE	2	41	83	2.00	0.22	0.56
SANPETE	10	893	498	0.56	4.64	3.36
TOOELE	1	62	41	0.67	0.32	0.28
UTAH	27	3,242	1,725	0.53	16.85	11.61
WASATCH	21	1,475	1,184	0.80	7.67	
REGIONAL TOTALS	64	5,944	3,637	0.61	30.89	7.97 24.48
BEAVER	1	41				
GARFIELD	1 1	41	41	1.00	0.22	0.28
IRON	2	20 83	20	1.00	0.11	0.14
KANE	2	62	207	2.50	0.43	1.40
MILLARD	2 4		145	2.33	0.32	0.98
PIUTE	4 1	103 83	103	1.00	0.54	0.70
SEVIER	10	644	124	1.50	0.43	0.84
WASHINGTON	0		332	0.52	3.35	2.24
WAYNE	1	0	0	0.00	0.00	0.00
WAINE REGIONAL TOTALS		41	20	0.50	0.22	0.14
LEGIONAL TOTALS	22	1,080	997	0.92	5.62	6.71
ORTHEASTERN REGION						
DAGGETT	2	103	41	0.40	0.54	0.28
DUCHESNE	4	332	103	0.31	1.73	0.70
UINTAH	9	769	727	0.95	4.00	4.90
EGIONAL TOTALS	15	1,205	872	0.72	6.26	5.87
OUTHEASTERN REGION						
CARBON	2	124	103	0.83	0.65	0.70
EMERY	0	0	0	0.00	0.00	0.00
GRAND	1	83	41	0.50	0.43	0.28
SAN JUAN	1	103	62	0.60	0.54	0.42
EGIONAL TOTALS	4	311	207	0.67	1.62	1.40
UNKNOWN	0	0	0	0.00	0.00	0.00
TATE TOTALS	246	19,247	14,861	0.77	100.00	100.00

Table 11. Summary of ruffed grouse hunter success and distribution of harvest and hunting pressure by region and county, 1997.

-- ----

*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, 1997.

REGION AND COUNTY	Sample i Size*	AFTELD	BIRDS BAGGED	BIRDS PER HUNTER-DAY	* OF Pressure	S OF
NORTHERN REGION						
BOX ELDER	29	1,974	1,683	0.85	4.93	5.43
CACHE	113	6,879	5,736	0.83	17.19	18.50
DAVIS	30	1,787	1,267	0.71	4.47	4.09
MORGAN	27	1,600	1,995	1.25	4.00	6.43
RICH	32	1,475	1,413	0.96	3.69	4.56
SUMMIT	31	2,411	1,683	0.70	6.02	5.43
WEBER	49	3,013	3,034	1.01	7.53	9.79
REGIONAL TOTALS	311	19,143	16,815	0.88	47.82	54.22
CENTRAL REGION						
JUAB	17	831	498	0.60	2.08	1.61
SALT LAKE	9	561	187	0.33	1.40	0.60
SANPETE	23	1,517	997	0.66	3.79	3.22
TOOELE	11	1,351	103	0.08	3.37	0.34
UTAH	63	5,237	3,429	0.65	13.08	11.06
WASATCH	36	2,327	2,265	0.97	5.82	7.31
REGIONAL TOTALS	159	11,826	7,482	0.63	29.54	24.13
SOUTHERN REGION						
BEAVER	5	228	249	1.09	0.57	0.80
GARFIELD	7	311	83	0.27	0.78	0.27
IRON	13	540	540	1.00	1.35	1.74
KANE	4	145	187	1.29	0.36	0.60
MILLARD	15	623	332	0.53	1.56	1.07
PIUTE	6	332	415	1.25	0.83	1.34
SEVIER	40	2,348	1,517	0.65	5.87	4.89
WASHINGTON	3	124	41	0.33	0.31	0.13
WAYNE	5	187	41	0.22	0.47	0.13
REGIONAL TOTALS	98	4,842	3,408	0.70	12.10	10.99
NORTHEASTERN REGION						
DAGGETT	5	228	83	0.36	0.57	0.27
DUCHESNE	20	1,060	478	0.45	2.65	1.54
UINTAH	28	1,912	1,933	1.01	4.78	6.23
REGIONAL TOTALS	53	3,200	2,494	0.78	8.00	8.04
SOUTHEASTERN REGION						
CARBON	7	374	249	0.67	0.93	0.80
EMERY	4	166	83	0.50	0.42	0.27
GRAND	5	249	187	0.75	0.62	0.60
SAN JUAN	4	228	290	1.27	0.57	0.94
REGIONAL TOTALS	20	1,018	810	0.80	2.54	2.61
UNKNOWN	0	0	0	0.00	0.00	0.00
STATE TOTALS	641	40,032	31,011	0.77	100.00	100.00

*Total hunter trips from questionnaire returns.

Table 13. Summary of forest grouse bagged per hunter-day by region and county, 1990-97

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	0.97	0.69	1.15	0.18	0.80	0.92	1.03	0.05
Cache	0.75	0.92	0.94	0.41	0.88	0.92	1.38	0.85 0.83
Davis	1.02	0.84	0.59	0.18	0.45	0.64	1.50	0.85
Morgan	0.94	0.94	1.06	0.16	0.66	1.14	1.51	1.25
Rich	0.52	0.62	0.76	0.34	0.59	0.62	1.10	0.96
Summit	0.49	0.72	0.77	0.40	0.82	0.97	1.21	0.70
Weber	0.73	0.51	1.01	0.51	0.51	0.83	1.21	1.01
REGIONAL TOTALS	0.74	0.76	0.92	0.37	0.72	0.80	1.33	
ver va be sever, se adverting a production of the second second second second second second second second secon		este – take and him in the	an a	Sellinin 1621. – Hum	li le Verschallsei le 1945	and and an and an a	lle, ski artis 1999	
Central Region								
Juab	0.88	0.65	0.79	0.84	0.56	0.78	0.23	0.60
Salt Lake	0.81	0.55	1.00	0.41	0.87	0.52	0.48	0.33
Sanpete	0.82	0.98	0.78	0.65	0.86	0.48	0.67	0.66
Tooele	1.03	1.03	1.19	0.37	1.02	0.96	1.00	0.08
Utah	0.91	0.97	0.84	0.77	0.59	0.45	0.74	0.65
Wasatch	0.83	0.76	1.25	0.26	0.52	0.74	0.91	0.97
REGIONAL TOTALS	0.90	0.89	0.92	0.52	0.70	0.61	0.76	0.63
Southern Region								
Beaver	0.85	0.95	1.44	1.17	0.64	0.60	0.79	1.09
Garfield	0.74	0.83	0.48	0.27	0.29	0.40	0.83	0.27
Iron	0.69	0.57	0.78	0.93	0.78	0.78	0.38	1.00
Kane	0.81	0.61	1.45	1.25	0.80	1.75	0.50	1.29
Millard	1.49	0.98	1.59	0.86	0.77	0.60	0.75	0.53
Piute	1.25	1.00	0.75	1.32	0.20	0.80	1.52	1.25
Sevier	1.02	0.94	1.30	0.49	0.71	0.49	0.81	0.65
Washington	0.00	1.83	2.00	0.00	0.60	1.25	0.33	0.33
Wayne	0.86	0.59	1.29	0.71	0.45	0.50	0.13	0.22
REGIONAL TOTALS	0.99	0.87	1.19	0.71	0.54	0.62	0,77	Ŏ.7Ó
North to Do								
Northeastern Regio								
Daggett	0.81	0.97	1.03	0.85	0.58	0.56	1.56	0.36
Duchesne	0.69	0.78	0.68	0.31	0.57	0.86	0.90	0.45
Uintah REGIONAL TOTALS	1.09	1.00	1.01	0.66	0.53	1.30	1.01	1.01
REGIORAD TUTALIS	0.93	0.93	0.94	0.59	0.55	1.00	1.08	0.78
Southeastern Regi	on							
Carbon	0.47	0.64	0.83	0.73	0.78	1.60	0.38	0.67
Emery	0.81	0.78	0.88	0.18	0.48	0.17	0.470.	50
Grand	1.12	2.14	0.52	1.12	0.00	0.50	0.31	0.75
San Juan	0.83	0.45	1.57	1,50	1.20	0.43	0.71	1.27
RECIONAL TOTALS	0.69	0.77	0.79	0.54	0.67	0.56	0.41	0.80
		_	_	_				
Unknown counties	0.00	0.00	0.00	0.44	0.00	0.41	1.00	0.00
	0.07	0.00	0.00	0 50	0 60	A	4	<u> </u>
STATE TOTALS	0.83	0.82	0.96	0.50	0.69	0.73	1.06	0.77

112

Table 14. Percentage distribution of forest grouse harvest by region and county, 1990-97

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	199
Northern Region								
Box Elder	6.51	5.53	4.83	1.99	6.15	4.84	2.53	4.9
Cache	15.47	17.45	17.65	12.36	19.01	20.69	26.36	17.1
Davis	3.28	2.89	2.48	0.63	1.68	2.82	4.70	4.4
Morgan	3.28	3.29	2.75	0.84	2.52	3.76	8.44	4.0
Rich	2.89	3.74	3.19	2.72	2.70	2.42	3.97	3.0
Summit	3.45	6.83	3.83	3.77	8.67	8.40	5.48	6.0
Weber	8.07	5.03	9.82	9.11	7.18	9.94	12.13	7.
EGIONAL TOTALS		44.77	44.55			52.86		47.
Central Region								
Juab	0.78	0.75	1.48	1.68	0.47	1.41	0.19	2.
Salt Lake	0.72	0.80	2.12	0.94	1.86	1.14	0.19	2.
Sanpete	5.40	4.34	3.31	0.94 4.19	5.69	2.69	0.89	1. 3.
Tooele	5.40 6.68	4.54	2.51	4.19 3.98	5.69 4.94	2.69	2.02	3.
Utah	8.74	4.04 7.48	10.38	10.47	4.94 6.90		2.02 6.84	
Wasatch	2.89	4.44	4.59	3.14		4.63		13.
EGIONAL TOTALS				24.40	4.19 24.04	6.85 19.75		5. 29.
Southern Region								
Beaver	1.61	2.59	2.08	2.20	1.68	1.75	0.86	0.
Garfield	1.45	1.00	0.84	1.36	0.37	0.67	0.74	0.
Iron	1.39	1.94	1.56	7.96	1.68	2.55	0.82	1.
Kane	0.72	0.95	1.28	1,57	0.37	1.41	0.12	0.
Millard	2.89	2.24	3.23	3.35	2.14	0.60	0.58	1.
Piute	3.34	2.04	0.84	3.46	0.37	1.07	1.83	0.
Sevier	7.90	10.27	10.70	6.39	8.20	4.97	5.60	5.
Washington	0.00	0.55	0.48	0.00	0.56	0.34	0.16	0.
Wayne	1.00	0,65	0.72	1.78	0.47	0.20	0.04	
BGIONAL TOTALS	20.31	22.23			المحافظة والمحافظة المحافظة ا	13.57		12.
lortheastern Reg	non							
Daggett	1.39	1 65	1 70	1 70	0 70	1 60	1 04	•
Duchesne	1.39	1.65 2.24	$1.28 \\ 1.20$	1.78 1.36	2.70	1.68	1.94	0.
Uintah	4.90	4.99	4.67	7.12	1.58 3.91	2.48 7.52	2.02 3.07	2.0
EGIONAL TOTALS					8.20			4. 8.
outheastern Re	aion							
Carbon	-	0 70	0 00	1 1 -	1 60	<u> </u>		~
Emery	1.34	0.70	0.20	1.15	1.68	0.54	0.19	0.9
-	1.17	0.35	0.92	0.73	1.21	0.07	0.27	0.4
Grand San Juan	1.06	0.75	0.64	1.99	0.00	0.54	0.54	0_0
RGIONAL TOTALS	0.28 3.84	0.50 2.29	0.44 2.20	0.31 4.19	1.12	0.40	0.39	0.! 2.!
nknown counties		0.00	0.00	1.68	0.00	0.60	0.16	0.0
TATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.0

Table 15. Percentage distribution of forest grouse hunting pressure by region and county, 1990-97.

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	5.60	6.59	4.04	5.48	5.30	3.84	2.60	4.93
Cache	17.22	15.55	18.07	14.88	14.76	21.23	20.24	17.19
Davis	2.69	2.82	4.04	1.78	2.56	3.25	3.30	4.47
Morgan	2.92	2.86	2.50	2.66	2.62	2.41	5.40	4.00
Rich	4.63	4.95	4.04	3.97	3.13	2.86	3.83	3.69
Summit	5.83	7.73	4.78	4.75	7.28	6.35	4.82	6.02
Weber	9.21	8.10	9.36	8.93	9.71	8.77	10.43	7.53
RECIONAL TOTALS	48.10	48.61	46.84	42.45	45.37	48.72	50.62	47.82
Central Region								
Juab	0.74	0.94	1.81	0.99	0.58	1.33	0.91	2.08
Salt Lake	0.74	1.19	2.04	1.15	1.47	1.63	1.98	1.40
Sanpete	5.51	3.64	4.08	3.24	4.54	4.09	2.72	3.79
Tooele	5.42	3.23	2.04	5.33	3.32	2.32	2.14	3.37
Utah	8.01	6.34	11.98	6.79	8.05	7.54	9.85	13.08
Wasatch	2.92	4.79	3.54	6.11	5.50	6.75	6.27	5.82
REGIONAL TOTALS	23.33		25.50		23.45	23.65		29.54
Southern Region								
Beaver	1.57	2.25	1.39	0.94	1.79	2.12	1.15	0.57
Garfield	1.62	0.98	1.69	2.56	0.89	1.23	0.95	0.78
Iron	1.67	2.82	1.93	4.28	1.47	2.41	2.27	1.35
Kane	0.74	1.27	0.85	0.63	0.32	0.59	0.25	0.36
Millard	1.62	1.88	1.96	1.93	1.92	0.74	0.82	1.56
Piute	2.22	1.68	1.08	1.31	1.28	0.99	1.28	0.83
Sevier	6.44		7.94	6.53	7.92	7.39	7.30	5.87
Washington	0.23	0.25	0.23	0.16	0.64	0.20	0.49	0.31
Wayne	0.97	0.90	0.54	1.25	0.70	0.30	0.33	0.47
REGIONAL TOTALS	17.08	20.95	17.60		16.93	15.96	14.84	12.10
Northcostern Dester		_						
Northeastern Region Daggett	1.44	1.39	1.19	1.04	3.19	2.22	1.32	0.57
Duggett	1.67	2.37	1.69	2.19	1.92	2.12	2.39	2.65
Uintah	3.75	4.09	4.47	5.38	5.05	4.24	3.22	4.78
REGIONAL TOTALS	6.85	7,86	7.36	8.62	10.16	8.57		8.00
ing and an second state of the second state and the second state of the second state o		an a			, yi yan dan da yan yang kan y	nantan bilan yiingin bila yina yi dhu e		aar antigan toostoonoon too a
Southeastern Region								
Carbon	2.36	0.90	0.23	0.78	1.47	0.25	0.54	0.93
Emery	1.20	0.37	1.00	2.09	1.73	0.30	0.62	0.42
Grand	0.79	0.29	1.19	0.89	0.26	0.79	1.85	0.62
San Juan RECIONAL TOTALS	0.28 4.63	0.90	0.27 2. 70	0.10 3.86	0.64	0.69	0.58 3.59	
Unknown counties		0.00	0.00	1.88	0.00	1.08	0.16	0.00
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

114

į.

Year	Huntere 1	2	I							ol outset huiller wey	I		Of UUSER THILLET		
		Ruffed	Percent	Blue	Percent	Unknown	Percent	Harvest	Hunter-Days Affeld	Ruffed	Blue	Total	Ruffed	Blue	Total
	7,426	5,470	40.20	7,372	64.17	766	5.63	13,608	12,313	0.44	99.0	1.11	1274	0.99	1.83
	6,487	5,354	42,19	6,685	62.68	852	5.14	12,691	10,566	0.51	0.63	1.20	0.82	1.03	1.96
	6,005	3,225	37.20	4,924	66.80	620	6.00	8,669	10,504	0.31	0.47	0.83	0.54	0.82	Į
		6,966	56.64	4,659	37.81	696	6.65	12,321	12,387	0.56	0.38	0.99	1.04	0.68	1.81
		8,476	48.36	6,773	38.66	2,277	12.99	17,626	17,773	0.48	0,38	0.99	0.87	0.69	1.86
		17,048	52.59	12,604	38.88	2,762	8.52	32,414	26,637	0.64	0.47	1.22	1.30	0.96	2.48
1969 12	12,623	9,490	41.14	10,419	48.46	1,689	7.39	21,498	24,672	0.38	0.42	0.87	0.76	0.83	1.72
1970 12		15,690	48.87	13,615	42.37	2,793	8.76	31,898	26,819	0.69	0.51	1.20	1.22	1.06	2.50
13 13		16,769	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	16,840	20,648	48.56	19,221	45.21	2,649	6.23	42,618	38,940	0.63	0 . 49	1.09	1.24	1,16	2.66
1973 17		7,163	15.81	36,846	81.46	1,233	2.73	46,232	44,738	0.16	0.82	1.01	0.41	2,09	2.57
1974 21		24,561	39.34	32,236	51.63	5,842	9.04	62,439	56,258	0.44	0.58	1.13	1.12	1.47	2.85
1975 20		15,750	37.09	23,138	64.49	3,573	8.41	42,461	50,579	0.31	0.45	0.84	0.78	1.15	2.11
1976 21	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		15,766	37.12	23,456	55.22	3,266	7.67	42,477	48,746	0.37	0.48	0.87	0.82	1.22	2.21
1978 26		30,340	37.20	46,651	57.20	4,567	5.60	81,658	72,732	0.42	0.64	1.12	1.20	1.84	3.2
1979 21		23,156	38.69	33,070	55.25	3,625	6.06	59,861	57,404	0.40	0.58	1.04	1.05	1.50	2,61
1980 15	19,611	16,457	33.96	27,588	60.60	2,477	5.44	45,522	49,899	0.31	0.55	0.91	0.79	1.4.1	2.33
1981 14		8,557	30.68	17,852	64.00	1,485	6.32	27,894	34,305	0.25	0.52	0.81	09.0	1.25	6.1
1982 12	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		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
		6,780	33.24	12,647	62.01	969	4.76	20,396	27,244	0.25	0.46	0.75	69.0	1.10	1.77
		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
	_	8,819	36.95	14,158	59.31	894	3.76	23,869	30,312	0.29	0.47	0.79	0.73	1.17	1,97
		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
		19,100	36.66	31,556	58.91	2,906	6,43	53,562	51,726	0.37	0.61	1.04	1.13	1.86	3.16
	16,987 ·	16,323	36.88	27,794	61.10	1,370	3.01	45,487	50,631	0.32	0.55	0.90	96.0	1.64	2.68
		11,010	28.29	26,115	67.10	1,797	4.62	38,922	44,452	0.25	0.59	0.83	0.75	1.79	2.53
1991 14		12,073	34.60	21,310	61.07	1,514	16.4	34,8 97	42,517	0.35	0.50	0.82	0.84	1.48	2.42
		16,017	33.73	29,146	66.47	366	0.80	44,518	46,136	0.33	0.63	0.96	1.00	1.94	2.97
1993 12	12,029	6,650	36.05	11,040	60,84	467	2.62	18,147	36,390	0.18	0.30	0.50	0.55	0.92	1.5.1
1994 9	9,827	6,908	36,62	11,865	62.90	58	0.47	18,862	27,510	0.25	0.43	0.68	0.70	1.21	1.91
1996 10		13, 140	44.83	16,172	66.17	5	0.00	29,312	36,591	0.77	0.87	0.82	2.79	3.00	2.91
1996 14	14,702	29,667	48.63	31,365	51.47	*	0.00	60,922	62,711	0.97	0.97	0.97	4.16	4.13	4.14
1897 10		14,861	47.63	16,337	62.37	•0	0.00	31,198	39,304	0.77	0.81	0.79	3.11	3.01	3.06
	4.812.78	470,952	1	696,487	1	63,866	1	1,236,295	1,308,933	1	1	:	1	1	1
Averages (1963-96) 14	14.324	13.562	38.97	20.004	55.64	1.878	6.73	36.444	37.371	0.40	0.66	0.94	1.03	1.42	2.36

5

ļ

l

Ľ

1
8
3-1997
က်
g
÷
_
2
ō
콜
-
- 2
- 2
-
Ē
⊒
드
멷
à
- 60
Ö
핖
₽
23
ē
냃
265
2
ġ
득
2
3
9
ā
ъ
₫
Ŧ
ರ
ъ
2
(e a
llue and r
ž
ш
~
e 17.
Table 17
ā
-

Current Circust Croust Fronta Fron	Season Length Close 7 10/16	Aggregate Bac Limits	ate
Grouse Harvest Harvest Harvest Harvest Harvest Harvest Affeld Afferd 322 5,457 31,307 5,253 31,307 5,457 31,307 32,31 31,337 </th <th>Season Length Close ? 10/16</th> <th>Bag Limi</th> <th></th>	Season Length Close ? 10/16	Bag Limi	
HarvestHarvestHarvestHarvestHarvestAffeld \mathbf{Open} $5,470$ $7,372$ $13,608$ $7,425$ $12,313$ 7 $5,564$ $6,685$ $12,691$ $6,487$ $10,566$ 9226 $5,354$ $6,685$ $12,321$ $6,487$ $10,566$ 9228 $5,356$ $4,553$ $12,321$ $6,683$ $12,387$ 9228 $8,476$ $4,553$ $12,321$ $6,683$ $12,387$ 9228 $8,476$ $4,553$ $12,321$ $6,683$ $12,337$ 9228 $8,476$ $4,553$ $12,324$ $3,563$ $12,775$ $28,577$ 9228 $8,476$ $3,515$ $31,901$ $13,363$ $24,572$ 923 9228 $15,759$ $13,748$ $31,901$ $13,363$ $28,4572$ 9128 $20,648$ $19,221$ $42,518$ $16,640$ $38,940$ 9222 $20,648$ $19,221$ $42,518$ $16,640$ $38,940$ 9222 $20,648$ $19,221$ $42,518$ $16,640$ $38,940$ 9222 $20,648$ $19,221$ $42,518$ $16,640$ $38,940$ 9222 $20,648$ $19,221$ $42,523$ $24,517$ 9228 $15,756$ $33,5158$ $32,5162$ $42,477$ $19,402$ 9117 $23,5561$ $35,666$ $45,522$ $19,5102$ $56,528$ 9118 $15,756$ $23,562$ $19,5178$ $12,920$ 9118 $15,756$ $23,562$ $19,5178$ $12,932$ 9118 </th <th>Close 7 10/16</th> <th></th> <th>its</th>	Close 7 10/16		its
5,470 $7,372$ $13,608$ $7,425$ $12,313$ $5,354$ $6,685$ $12,321$ $6,683$ $12,321$ $6,683$ $12,337$ $5,354$ $6,685$ $12,321$ $6,683$ $12,327$ $10,566$ $105,074$ $5,354$ $6,685$ $12,321$ $6,683$ $12,327$ $10,566$ $105,074$ $8,476$ $6,773$ $17,526$ $9,420$ $17,773$ $17,773$ $17,773$ $9,490$ $10,413$ $21,438$ $12,663$ $32,414$ $13,061$ $28,651$ $9,490$ $10,413$ $21,438$ $12,775$ $24,572$ $24,572$ $24,572$ $7,153$ $36,846$ $45,232$ $11,366$ $62,439$ $21,920$ $56,579$ $20,6481$ $9,221$ $42,451$ $13,363$ $29,400$ $72,732$ $24,557$ $33,7307$ $65,422$ $14,738$ $24,768$ $25,579$ $24,571$ $13,363$ $21,920$ $55,258$ $14,326$ $24,572$ $25,7566$ $45,272$ $15,726$ $12,732$		Days Dally	Possession
5,354 6,685 12,691 6,487 10,566 3,225 4,924 8,773 17,526 9,420 17,773 8,476 8,773 17,526 9,420 17,773 17,773 8,476 8,773 17,526 9,420 17,773 17,773 9,490 10,419 21,498 12,575 28,619 17,773 9,490 10,419 21,498 12,575 28,619 17,773 15,7580 13,749 31,900 13,363 28,457 28,651 20,648 19,221 42,414 13,066 38,464 47,775 28,561 20,648 19,221 42,613 21,363 21,920 56,519 24,572 20,648 19,211 28,446 20,102 26,579 26,579 26,579 21,153 36,846 45,232 11,768 64,477 26,579 26,579 21,576 23,138 42,447 19,1188 44,738 27,244 23,156 </td <td>10/16</td> <td>4</td> <td>-</td>	10/16	4	-
3,225 4,924 8,669 6,005 105,074 8,476 6,773 17,526 9,420 17,773 17,048 12,659 12,321 6,683 12,387 15,650 13,515 31,898 12,525 9,400 15,759 13,515 31,898 12,523 26,619 15,759 13,749 31,901 13,353 24,672 15,759 13,749 31,901 13,353 24,672 20,648 19,221 42,518 16,640 38,940 7,153 36,846 45,518 14,738 24,473 20,648 19,221 42,517 26,578 38,940 7,153 36,846 54,512 21,353 24,677 20,648 19,221 42,532 11,363 24,477 23,551 35,546 53,436 21,358 22,138 23,555 35,562 42,477 19,188 44,738 30,340 45,552 19,510 27,44 23,404 15,766 23,436 42,457 20,102 26,		21 4	- 00
6,966 4,659 12,321 6,683 12,387 17,048 12,650 13,515 31,806 12,775 26,619 15,560 13,515 31,806 12,775 26,619 17,773 15,560 13,515 31,806 12,775 26,619 17,773 15,758 13,749 31,901 13,553 36,846 45,232 17,568 20,648 19,221 42,518 31,901 13,353 24,577 26,619 27,153 36,846 45,232 17,588 12,776 26,619 27,153 36,846 45,232 17,588 44,738 24,577 24,575 35,5168 65,233 17,688 44,738 27,732 25,556 35,5108 82,4467 1012 66,423 34,420 23,456 42,477 19,188 48,738 27,424 23,456 42,477 19,188 48,728 7,404 25,516 37,406 15,552 16,511 <t< td=""><td>10/22</td><td>28 4</td><td></td></t<>	10/22	28 4	
8,476 $6,773$ $17,526$ $9,420$ $17,773$ $17,048$ $12,650$ $13,515$ $31,808$ $12,775$ $26,619$ $15,550$ $13,515$ $31,808$ $12,775$ $26,619$ $15,750$ $13,749$ $31,901$ $13,353$ $24,572$ $20,648$ $19,221$ $42,518$ $12,775$ $26,619$ $7,153$ $36,846$ $45,232$ $17,756$ $26,579$ $24,557$ $32,236$ $62,433$ $21,920$ $65,558$ $15,756$ $32,3456$ $42,477$ $19,102$ $56,579$ $23,456$ $32,439$ $21,920$ $66,579$ $26,579$ $23,557$ $32,3456$ $42,477$ $19,188$ $48,746$ $23,156$ $33,070$ $59,851$ $21,138$ $74,46$ $23,156$ $33,070$ $59,851$ $21,138$ $72,738$ $23,156$ $33,070$ $59,851$ $21,138$ $72,734$ $23,156$ $33,070$ $59,851$ $21,384$ $28,767$ $11,366$ $15,552$ <td< td=""><td>10/21</td><td>28 4</td><td>) aŭ</td></td<>	10/21	28 4) aŭ
17,048 $12,604$ $32,414$ $13,061$ $28,657$ $9,490$ $10,419$ $21,498$ $12,775$ $26,619$ $15,789$ $13,749$ $31,900$ $13,363$ $29,400$ $20,6448$ $19,221$ $42,518$ $16,640$ $38,940$ $7,153$ $36,846$ $45,232$ $17,568$ $24,572$ $26,619$ $7,153$ $36,846$ $45,232$ $17,756$ $26,579$ $26,579$ $24,557$ $32,236$ $62,433$ $21,1920$ $56,258$ $44,7738$ $23,300$ $30,3406$ $62,433$ $21,1920$ $56,579$ $26,579$ $23,4561$ $33,070$ $59,851$ $21,198$ $66,422$ $34,305$ $23,1562$ $33,070$ $59,851$ $21,198$ $66,422$ $34,305$ $23,1563$ $45,552$ $19,588$ $21,198$ $66,422$ $34,305$ $23,1563$ $16,558$ $25,318$ $27,178$ $21,328$ $21,328$ $23,1563$ $12,718$ $45,328$ $14,332$ $34,305$ $34,305$ 74	10/31	39	, ec
9,490 $10,419$ $21,498$ $12,523$ $24,572$ $15,580$ $13,515$ $31,901$ $13,353$ $29,100$ $15,758$ $13,749$ $31,901$ $13,353$ $29,100$ $20,648$ $19,221$ $42,518$ $16,640$ $38,940$ $7,153$ $36,846$ $45,232$ $17,568$ $44,738$ $24,561$ $32,236$ $62,433$ $21,1588$ $44,738$ $24,561$ $32,2365$ $62,433$ $21,186$ $65,422$ $15,750$ $23,455$ $42,477$ $20,102$ $50,579$ $23,303$ $46,656$ $63,436$ $21,186$ $64,222$ $23,456$ $63,436$ $21,186$ $64,422$ $26,422$ $23,303$ $46,657$ $21,186$ $44,738$ $44,738$ $23,300$ $33,3070$ $59,851$ $21,186$ $44,738$ $23,156$ $33,070$ $59,851$ $21,322$ $23,732$ $23,750$ $45,522$ $21,938$ $23,746$ $23,732$ $23,750$ $14,432$ $21,328$	10/29	32 4	, œ
15,650 13,515 31,898 12,775 26,619 15,758 13,749 31,901 13,363 29,100 7,153 36,846 45,232 17,568 44,738 7,153 36,846 45,232 17,568 44,738 7,153 36,846 45,232 17,568 44,738 24,561 32,236 62,433 21,920 55,258 15,750 23,136 42,477 19,188 44,738 23,551 35,566 63,435 21,186 56,422 23,551 35,566 63,437 19,188 48,746 30,3070 59,851 21,186 56,422 23,156 53,456 42,477 19,188 48,746 30,3070 59,851 21,938 27,732 23,746 23,150 15,552 19,561 45,552 19,511 21,732 23,150 12,647 20,308 14,328 21,778 23,536 3,511 13,552 27,984 14,323 34,530 34,530 8,571 13,562	11/02	37 4) ac
15,759 13,749 31,901 13,363 29,100 7,153 36,846 45,232 17,588 44,738 7,153 36,846 45,232 17,588 44,738 26,561 32,236 62,439 21,920 55,258 15,750 23,138 42,461 20,102 50,579 23,551 35,660 63,436 21,186 56,423 15,766 23,455 81,558 21,186 56,423 23,156 23,456 42,477 19,188 48,746 30,340 46,651 81,552 17,186 56,422 35,156 23,456 42,477 19,188 48,746 30,340 46,651 81,552 19,188 48,746 33,156 85,522 17,186 56,433 57,404 23,156 24,552 17,78 12,933 57,404 25,178 45,522 17,78 14,328 34,305 8,557 17,894 14,328 14,328 34,305 8,5101 13,414 23,933 34,305	11/06	42	• •
20,648 19,221 42,518 16,640 38,940 7,153 36,846 45,232 17,588 44,738 24,561 32,236 62,439 21,920 55,258 15,750 23,138 42,451 20,102 50,579 23,551 35,860 63,439 21,920 55,258 15,766 23,455 42,477 19,188 48,746 30,340 46,651 81,552 13,858 21,136 57,404 30,340 46,651 81,552 17,186 56,423 38,940 30,340 46,651 81,552 19,1188 48,746 57,404 30,340 46,655 82,433 21,138 71,993 57,404 23,156 23,168 14,329 34,305 57,404 25,417 19,318 44,329 34,305 57,404 8,557 77,884 14,329 34,305 57,404 8,557 77,865 14,328 14,328 34,305 8,571 15,417 20,306 14,328 34,305	11/30	57 A) ac
7,153 $36,846$ $45,232$ $17,688$ $44,738$ $24,561$ $32,236$ $62,439$ $21,920$ $56,258$ $15,750$ $23,138$ $42,451$ $20,102$ $50,579$ $15,756$ $23,456$ $63,436$ $21,186$ $66,422$ $15,756$ $23,456$ $63,436$ $21,136$ $57,792$ $30,340$ $46,651$ $81,558$ $21,1983$ $48,746$ $30,340$ $46,651$ $81,5582$ $81,511$ $49,8993$ $5,457$ $73,070$ $59,851$ $21,993$ $57,404$ $23,156$ $33,070$ $59,5522$ $19,511$ $49,8993$ $3,5307$ $45,522$ $14,329$ $34,305$ $23,756$ $12,7784$ $14,329$ $34,305$ $7,509$ $12,71784$ $14,329$ $34,305$ $7,509$ $12,7138$ $21,7784$ $12,394$ $28,767$ $7,509$ $12,71784$ $12,394$ $28,767$ $7,509$ $12,7386$ $12,7176$ $34,305$ $8,701$ $13,416$ $23,0077$ $12,646$ $31,2900$ $8,101$ $13,416$ $23,0077$ $12,646$ $31,2900$ $8,101$ $13,416$ $23,0077$ $12,646$ $31,2900$ $8,101$ $13,416$ $23,0077$ $12,646$ $31,2200$ $8,101$ $13,416$ $23,0077$ $12,646$ $31,2200$ $15,0117$ $28,912$ $14,6437$ $44,6437$ $44,6371$ $10,0100$ $28,116$ $36,3200$ $44,6518$ $14,4221$ $15,0177$ $29,130$	11/30	59 4) ac
24,561 32,236 62,439 21,920 55,258 15,750 23,138 42,441 20,102 55,258 15,766 23,455 42,477 19,186 56,422 15,766 23,455 42,477 19,186 56,422 23,156 33,070 59,851 21,993 57,404 30,340 46,651 81,558 25,318 72,732 23,156 33,070 59,851 21,993 57,404 30,340 45,552 19,511 49,893 57,404 15,457 27,588 45,522 19,511 34,305 7,509 12,138 21,778 12,384 13,414 34,530 8,501 12,647 20,088 13,414 34,530 34,305 8,701 12,647 20,306 13,414 34,530 34,305 8,701 13,566 53,652 14,331 41,47 30,312 11,366 16,352 20,306 12,648 31,290 8,746 8,701 12,646 31,3414 34,452 17,284	11/30	4 4) a
15,750 23,138 42,461 20,102 50,579 15,766 23,456 42,477 19,186 56,422 23,551 35,660 63,436 42,477 19,186 56,422 23,156 33,070 59,851 21,993 57,404 23,156 33,070 59,851 21,993 57,404 23,156 33,070 59,851 21,993 57,404 15,457 27,588 45,522 19,511 49,893 8,557 17,862 27,884 14,329 34,305 7,509 12,138 21,778 12,384 14,329 8,701 13,416 23,436 14,329 34,530 8,701 13,416 23,098 13,414 37,230 8,701 13,416 23,652 14,321 31,290 8,701 13,416 23,652 16,947 61,728 8,701 13,416 23,652 16,947 61,728 15,811 28,652 16,947 61,728 66,531 15,811 28,652 16,947 <td< td=""><td>11/30</td><td>54 4</td><td></td></td<>	11/30	54 4	
23,551 35,660 53,436 21,186 56,422 15,766 23,455 42,477 19,188 56,422 23,156 33,070 59,851 21,993 57,404 23,156 33,070 59,851 21,993 57,404 15,457 27,588 45,522 19,518 72,732 23,156 33,070 59,851 21,993 57,404 15,457 27,588 45,522 18,511 49,899 8,557 17,865 16,955 20,088 13,414 34,530 7,509 12,138 21,778 12,384 14,329 34,530 8,701 12,647 20,396 14,329 34,530 34,305 8,701 13,416 23,097 12,646 31,290 8,819 14,156 23,097 12,646 31,290 8,819 14,156 23,652 16,947 61,728 15,811 28,756 13,414 27,724 30,312 15,811 28,522 16,947 14,421 44,452 15,811 <t< td=""><td>11/30</td><td>72 4</td><td>) =0</td></t<>	11/30	72 4) =0
15,766 23,455 42,477 19,188 48,746 23,156 33,070 59,851 21,993 57,404 23,156 33,070 59,851 21,993 57,404 15,457 27,588 45,522 19,511 49,899 8,557 17,852 27,884 14,329 57,404 7,509 12,138 21,778 12,384 34,305 7,509 12,138 21,778 12,384 34,305 7,509 12,138 21,778 12,384 14,329 8,701 13,416 23,097 12,646 31,230 8,701 13,416 23,097 12,646 31,230 8,701 13,416 23,097 12,646 31,230 8,701 13,416 23,097 12,646 31,220 15,811 28,652 16,947 14,431 41,428 15,811 28,562 16,947 61,732 12,142 15,911 28,562 16,947 61,732 12,128 15,911 28,522 16,947 16,947	11/30	74 4	• •
30,340 46,651 81,558 25,318 72,732 23,156 33,070 59,851 21,993 57,404 15,457 27,588 45,522 19,511 49,899 8,557 17,852 27,834 14,329 57,404 7,509 12,138 21,778 12,384 28,767 11,366 18,955 30,088 13,414 28,767 11,366 18,955 30,088 13,414 28,767 11,366 18,955 30,088 13,414 27,244 8,701 13,416 23,097 12,646 31,290 8,701 13,416 23,097 12,646 31,290 8,701 13,416 23,097 12,646 31,290 8,810 14,156 23,097 12,646 31,290 8,811 28,552 16,947 21,177 30,312 15,819 13,416 23,562 16,947 51,728 15,810 31,556 53,562 16,947	11/30	75	. 00
23,156 33,070 59,851 21,993 57,404 15,457 27,588 45,522 19,511 49,899 8,557 17,852 27,894 14,329 34,305 7,509 12,138 21,778 12,394 28,767 11,366 16,955 30,088 13,414 34,530 8,701 13,416 23,097 12,646 31,290 8,701 13,416 23,097 12,646 31,210 8,701 13,416 23,097 12,646 31,212 8,701 13,416 23,097 12,646 31,212 8,701 13,416 23,097 12,646 31,220 8,819 14,156 23,097 12,646 31,220 15,811 14,156 23,565 16,987 41,423 15,100 26,115 38,922 16,987 44,452 15,017 29,1366 55,652 14,423 44,452 15,017 29,1310 34,897 14,423 44,452 15,017 29,1316 18,147 12,029 <	11/30	76 4	
15,457 27,588 45,522 19,511 49,899 7,509 12,138 21,778 14,329 34,305 7,509 12,138 21,778 12,334 28,767 11,366 16,965 30,088 13,414 34,530 6,780 12,647 20,396 14,511 27,244 8,701 13,416 23,097 12,646 31,290 8,701 13,416 23,097 12,646 31,290 8,701 13,416 23,097 12,646 31,290 8,819 14,156 23,097 12,646 31,290 8,811 14,156 23,526 14,831 41,428 19,100 31,556 53,526 14,831 41,428 15,017 28,131 38,922 14,431 51,728 15,017 28,146 45,487 16,947 50,631 11,010 26,115 38,922 14,421 42,452 15,017 29,136 14,4521 44,452	11/30	77 4	00
8,557 17,852 27,894 14,329 34,305 7,509 12,138 21,778 12,394 28,767 11,366 16,965 30,088 13,414 34,530 8,770 12,647 20,396 13,414 34,530 8,701 13,416 23,097 12,646 31,290 8,701 13,416 23,097 12,646 31,290 8,819 14,156 23,097 12,646 31,290 8,819 14,156 23,097 12,646 31,290 8,819 14,156 23,097 12,646 31,220 15,010 31,556 53,552 14,831 41,428 15,010 26,115 38,922 14,831 41,428 16,017 28,146 45,487 16,987 50,631 11,010 26,115 38,922 14,4221 42,652 15,017 28,136 44,518 16,421 42,652 16,017 28,146 44,518 16,44,652 <td>11/30</td> <td>72 4</td> <td>- 00</td>	11/30	72 4	- 00
7,509 12,138 21,778 12,384 28,767 11,366 16,955 30,088 13,414 28,757 8,701 13,416 23,097 12,646 31,530 8,701 13,416 23,097 12,646 31,290 8,701 13,416 23,097 12,646 31,290 8,819 14,156 23,097 12,646 31,290 8,819 14,156 23,869 12,117 31,312 15,811 33,565 53,565 14,831 41,428 15,101 28,187 16,947 51,726 16,323 27,794 45,487 16,947 50,631 11,010 28,115 38,922 14,431 44,453 15,017 29,1310 34,897 14,421 42,4517 15,017 29,146 44,518 15,000 46,136 15,017 29,146 18,147 12,029 36,390 6,650 11,040 18,147 12,029 36,390 <td>11/30</td> <td>73 4</td> <td>~ ~~~</td>	11/30	73 4	~ ~~~
11,366 16,955 30,088 13,414 34,530 6,780 12,647 20,396 11,511 27,244 8,701 13,416 23,097 12,646 31,290 8,701 13,416 23,097 12,646 31,290 8,811 13,4156 23,097 12,646 31,290 8,811 28,068 45,326 14,831 41,428 19,100 28,068 45,326 14,831 41,428 19,100 28,177 46,487 16,947 51,726 16,312 27,794 45,487 16,947 50,631 11,010 28,115 38,922 14,438 44,453 11,010 28,115 38,922 14,421 42,453 15,017 29,1310 34,897 14,421 42,451 15,017 29,146 44,518 15,000 46,136 15,017 29,146 18,147 12,029 36,390	11/30	74 4	00
6,780 12,647 20,396 11,511 27,244 8,701 13,416 23,097 12,646 31,290 8,819 14,156 23,097 12,646 31,290 8,819 14,156 23,097 12,646 31,290 15,811 28,068 45,326 14,831 41,428 19,100 31,556 53,562 16,947 51,726 19,100 31,556 53,562 16,947 51,726 11,010 26,115 38,922 14,433 44,453 11,010 26,115 34,897 14,421 42,151 15,017 29,146 44,518 15,000 46,136 15,017 29,146 44,518 15,000 46,136 5,650 11,040 18,147 12,029 36,390	11/30	75 4	-
8,701 13,416 23,097 12,646 31,290 8,819 14,156 23,869 12,117 30,312 15,811 28,068 45,326 14,831 41,428 19,100 31,556 53,562 16,987 50,631 16,323 27,794 45,487 16,987 50,631 11,010 26,115 38,922 14,591 44,452 15,017 29,146 44,518 15,000 48,136 15,017 29,146 18,147 12,029 36,390 6,650 11,040 18,147 12,029 36,390	11/30	4 4	80
8,819 14,156 23,869 12,117 30,312 15,811 28,068 45,326 14,831 41,428 19,100 31,556 53,562 16,987 50,631 19,100 31,556 53,562 16,987 50,631 16,323 27,794 45,487 16,987 50,631 11,010 26,115 38,922 14,591 44,452 12,073 21,310 34,897 14,421 42,517 15,017 29,146 44,518 15,000 48,136 6,650 11,040 18,147 12,029 36,390	11/30	78 4	. 00
15,811 28,068 45,326 14,831 41,428 19,100 31,556 53,562 16,947 51,726 19,100 31,556 53,562 16,987 50,631 16,323 27,794 45,487 16,987 50,631 11,010 26,115 38,922 14,591 44,452 12,073 21,310 34,897 14,421 42,517 15,017 29,146 44,518 15,000 46,136 6,650 11,040 18,147 12,029 36,390	11/30	79 4	- 60
19,100 31,556 53,562 16,947 51,726 16,323 27,794 45,487 16,987 50,631 11,010 26,115 38,922 14,591 44,452 12,073 21,310 34,897 14,421 42,517 15,017 29,146 44,518 15,000 46,136 6,650 11,040 18,147 12,029 36,390	11/30	80 4	- 00
16,323 27,794 45,487 16,987 50,631 11,010 26,115 38,922 14,591 44,452 12,073 21,310 34,897 14,421 42,617 15,017 29,146 44,518 15,000 48,136 6,650 11,040 18,147 12,029 38,390	11/30	82 4	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
11,010 26,115 38,922 14,591 44,452 12,073 21,310 34,897 14,421 42,617 15,017 29,146 44,518 15,000 48,136 6,650 11,040 18,147 12,029 38,390	-	82 4	00
12,073 21,310 34,897 14,421 42,517 15,017 29,146 44,518 15,000 48,136 6,650 11,040 18,147 12,029 38,390	11/30	82 4	~
15,017 29,146 44,518 15,000 48,136 5,650 11,040 18,147 12,029 38,390	11/30	77 4	-
6,650 11,040 18,147 12,029 36,390	11/30 7	79 4	60
	11/30	82 4	œ
6,908 11,865 18,862 9,827	11/30 8	81 4	~
1995 13,140 16,172 29,312 10,088 35,591 9/9	11/30	82 4	- 00
	11/30	84 4	- 00
61 16,337 31,198 10,206	11/30 8	80 4	. 00

Į

ť

l

1007
enmusru
Joedo
han
Fold
Concar
Enrost
ę
- Prior

I

		ALL HUNTS						COMPLETE HUNIS			•
Region and	Total	Totat	Total	Total	Birds/ 400 Hz	Complete Hunte	Total Huntere	Total Hours	Totai Rirds	Birds/ Hunter	Birds/ 100 Hr
County	Lanes	uniter s		- 1				6 1001			
Northern Region											
Box Elder	ł	1	I	1	1	ł	1	1	1	ł	1
Cache	42	88	132.0	25	19	42	68	132.0	25	0,28	ę.
Davis	1	1	:	:	;	1	1	:	1	ł	2
Morgan	1	1	ł	1	:	1	:	ı	ł	;	1
Rich	1	:	1	;	1	ł	;	1	ł	:	I
Summit	I	1	1	1	1	ł	:	1	1	1	1
Weber	67	124	262.5	28	11	57	124	252.5	28	0.23	£
REGIONAL TOTALS	66	213	384.5	53	4	66	213	384.5	63	0.25	1
Central Region											
Juab	1	:	:	;	:	1	1	:	1	:	ł
Salt Lake	ł	1	:	ł	1	1	1	ł	1	i	:
Sanbete	1	ł	1	1	1	:	1	I	1	1	I
Tooele	ł	1	1	ł	1	ł	1	:	1	ł	:
Utah	1	I	:	ł	1	;	1	1	:	1	1
Wasatch	:	1	ł	:	1	:	1	I	1	1	1
REGIONAL TOTALS	5	6	13.5	-	2	6	4	12.0	0	0.00	0
Southern Region											
Beaver	1	:	1	1	ł	I	I	ł	ł	1	:
Garfield	ł	ł	1	:	1	ł	1	1	ł	:	ï
Iron	I	I	1	:	I	I	ł	ł	I	:	:
Kane	ł	I	1	ł	1	1	ł	1	I	I	;
Millard	ł	1	:	ł	1	I	ł	I	1	:	1
Piute	I	ł	ł	ł	ł	ł	1	I	1	;	ł
Sevier	1	ł	1	ł	I	1	ł	I	1	;	1
Washington	ł	t	1	ł	1	1	ł	I	I	;	ł
Wayne	I :	I	1	I	I	1	1	1	1	1	1
REGIONAL TOTALS	1	ł	1	1	1	1	ł	1	I	Ŧ	I
Northeastern Region											
Daggett	ł	I	1	ł	1	:	1	1	I	1	1
Duchesne	ł	1	I	ł	1	•	1	ł	I	:	1
Uintah	1	1	1	1	I	:	1	1	1	1	1
REGIONAL TOTALS	I	1	1	1	I	1	1	1	1	I	I
Southeastern Region											
Carbon	ł	I	t	:	1	I	1	1	1	1	:
Emery	1	ł	1	1	ı	1	I	ı	1	1	1
Grand	ю	0	7.5	0	120	40	8	7.5	đ	1.00	120
san Juan	I	1	1	I	1	1	1	1	1	1	1
REGIONAL TOTALS	10	0	7.5	6	120	10	Ø	7.5	6	1.00	120

Region and County Birds/ Hunter Northern Region 0.58 Box Elder 0.58 Davis 0.77 Burnit 0.77 Summit 0.77 Weber 0.70 Rich 0.70 Summit 0.70 Vaber 0.70 Summit 0.70 Vab 0.70 Juab 0.70 Juab 0.82 Vasatch 0.82 Wasatch 0.82 Nasatch 0.82	명태 전 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Humder	8000 2000 ······························	Hunder	1400 1411 1211 1411 1411 1411 1411 1411 1411	Birds/ Hunder 0.43 0.43 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100 Hr 100 Hr 8 + 1 : 1 : 1	Birds/ Hunter 0.17	8 8	Birds/ Hunter	Birds/ 100 년 : 13 : 13 :
are and and and are				Hunders 0.59 0.59 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		Hunder 0.43 0.42 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	81.45 100 Hr 8 + 1 : 3	Birds/ Hunter 0.17	Birds 100 # 5	Birds/ Hunter	Birds/ 100 Hr 19 +
n Region ler Region h AL TOTALS h AL TOTALS n Region stern Region be						0.43	, set co : : ;	0.17	4		1 ¹ ¹
IAL TOTALS A IIIII A IIII A IIII A IIII A IIII A IIII A IIII A IIIII A IIIII A IIII A IIIII					. *	0.43	चrco : : ;	0.17	4		ı گ ا
AL TOTALS AL Region AL TOTALS AL Region A AL TOTALS A A A A A A A A A A A A A A A A A A				0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			₩ 00	0.17	4 ;		ı گ ا
AL TOTALS Region AL TOTALS AL TOTALS IAL TOTALS Bton Bton stern Region ne				0 9 9 9 9 9 9 9 9 9 9 9 9 1 1 1 1 1 1 1	*	· · · · · · · · · · · · · · · · · · ·	co		č	:	€ :
AL TOTALS Region AL TOTALS AL TOTALS In Region gton at TOTALS stern Region		3 1 1 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4				0 42		1.28	20	0.28	: :
IdL TOTALS Region A Mat TOTALS Mat TOTALS Mat TOTALS Mat TOTALS stern Region ne	1111 111001			50 50 10 10 10 10 10 10 10 10 10 10 10 10 10	1611 4 1111			1	1	1	
IAL TOTALS // IAL X// IAL	1111 111001			020 1 1 0 020 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 2		1	I	1	1	ł
AL TOTALS Region e e e e e e e e e e e e e e e e e e e	· · · · · · · · · · · · · · · · · · ·	5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 		60 · · · · · · · · · · · · · · · · · · ·		0.42	1	ł	1		
IAL TOTALS Region IAL TOTALS IAL TOTALS IAL TOTALS IAL TOTALS stern Region	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8 1 1 1 2 2 1 1 8 8 8				.: 0.42	i		l	1	ł
AL TOTALS Region AL TOTALS AL TOTALS I AL TOTALS I Region gton stern Region e e				890 · · · · · · · · · · ·	12	. : 0.42	I		1	1	1
Region In Region In Region gton stern Region In Region	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1			z	0.42	1	1.23	31	0.23	11
Region te Matrotats Matrotats Matrotats Matrotats stern Region	1116516					::	~	1.19	31	0.25	#
te h AL TOTALS Ban Ban AL TOTALS stern Region ne	111676					: :				Ĩ	
te h AL TOTALS n Region gton stern Region ne	1167					:	1	1	1	1	1
h IAL TOTALS IAL TOTALS Bton Bton stern Region ne	116576						:	I	f	;	
h AL TOTALS In Region gton AL TOTALS stern Region	1 😇 1 🕯					1	;	ł	1		ł
n AL TOTALS In Region gton AL TOTALS stern Region	œ 1 ¢		: :		1 1 1	1		}	1	1	ł
h IAL TOTALS In Region gton IAL TOTALS stern Region ne	2 1 2		: 1			Ι.	I	ł	1	I	1
AL TOTALS In Region gton AL TOTALS stern Region			1		1 1	ł	I	;	ł	ł	:
at 101ALS gton AL TOTALS stern Region				:	1	;	•	:	1	1	1
in Region gton AL TOTALS stern Region	0	1	:			:	;	:	I	0.00	0
gton AL TOTALS stern Region			ł								
gton IAL TOTALS stern Region	I	1	ł	:	:	:	1	;	;	1	ł
gton IAL TOTALS stern Region ne	ł	:	1	1	I	ł	:	1	;	t	:
gton <u>AL TOTALS</u> stern Region ne	1	1	ł	:	ł	:	ł	1	;	ł	1
gton <u>AL TOTALS</u> stern Region ne	1	1	1	1	1	1	;	ł	I	1	1
gton <u>AL TOTALS</u> stern Region ne	1	1	I	1	ł	ł	I	:	1	1	1
gton <u>AL TOTALS</u> stern Region ne	I	;	1	ł	ł	I	ł	1	I	1	ł
gton AL TOTALS stern Region ne	I	:	1	I	t	ł	1	I	:	I	1
AL TOTALS stern Region ne	ł	:	ł	I	I	1	1	ł	:	ł	:
<u>VAL TOTALS</u> astern Region t ine	1	;	1	I	:	1	;	1	1	I	1
astern Region t ine	1	ı	:	1	ł	1	1		1	:	1
t ine		1	:								
ine	50	:	1	I	1	0.13	ю	ł	:	I	ł
	1	:	1	1	1	1	1	ł	I	1	1
	100	1	1	0.25	7	0,00	•	I	;	;	3
	69	1	1	0.25	-	0.12	-			1	.
Southeastern Region		ł	1								
Carbon	ł	;	1	Į	I	1	;	1	ł	I	ł
Emery	I	I	1	ł	1	1	1	1	1	;	1
Grand	1	I	ŧ	1	1	;	Ł	ł	1	1.00	120
San Juan	1	:	1	K	:	I	1	1	1	I	1
REGIONAL TOTALS	1	1	1	1	1	ł	I	1	,	1.00	120
	87	I	1	0.53	13	0.40		1.19	3	0.27	15

Table 19. Forest grouse hunter success trend as determined by field bag checks. 1992-87.

Table 20.	Sex and	i age com	noosition	of harvested	ruffed grouse,	, 1997.

5

Ľ

l

ŀ.,

: :

Table 20. Sex and age Region and	Sample		Adults			Toung		Young/	Young/
County	Size	M	F	Total	M	<u> </u>	Total	100 Adults	<u>100 Hens</u>
Northern Region									
Box Eider		_		_		-	-	-	-
Cache		_		_		-	—	-	-
Davis		-		-		-	—		-
Morgan	_							-	-
Rich		_		_			_	_	-
Summit		_			_				-
Weber	_		_			_		_	
REGIONAL TOTALS		_		_	-		-		-
Central Region									
Juab	_		_	_			_		
Sait Lake	_					-		_	-
Sanpete	_						_		-
Tooele	_					-	—		-
Utah	_				_		_	-	
Wasatch		_							-
REGIONAL TOTALS	43	_		16		_	27	169	_
Southern Region				•					
Beaver	_					_		_	-
Garfield		-					_	-	
iron	_	_			_	_		_	-
Kane						_	_		
Millard	-	_	_				_	_	_
Piute		_	_			_	_	-	
Sevier			_	_			_	_	_
Washington	_					_		-	
Wayne							_	_	_
REGIONAL TOTALS		_					_	_	_
Northeastern Region									
Daggett	_	_				-	_	_	_
Duchesne		-	_		_	-		-	-
Uintah	_	_			-		_	_	_
REGIONAL TOTALS			_		_				_
Southeastern Region		-							
Carbon	-	_		_			-	_	
Emery	_					_	_	_	_
Grand	-	_	_		_	-			
San Juan	_	_		-	_	-	_	_	_
REGIONAL TOTALS					_		<u>-</u>		
STATE TOTALS	43			16			27	169	_

Table 21.	Sex and age	composition of harvested blue grouse,	1997
		sempenden er nar rested blue grouse,	1001.

Region and	Sample		Adults			Young		Young/	Young/
County	Size	M	F	Total	M	F	Total		<u>100 Hens</u>
Northern Region									
Box Elder	-	_		_	_		_	_	_
Cache	_					_		-	_
Davis		_			_		-	_	_
Morgan	-		_		-	_	_		_
Rich	_				_		_	_	-
Summit		-						-	_
Weber				_			_		
REGIONAL TOTALS	_					_			
Central Region									
Juab		_	_			-		-	_
Salt Lake	_					_	_	_	
Sanpete	_	-		_	-				
Tooele				-	-			_	-
Utah	_	_	-						_
Wasatch	-	_	_		-	_	-	_	
REGIONAL TOTALS	42	6	3	9	19	14	33	367	1.100
Southern Region									
Beaver	-						_		-
Garfield	_			-	_	-		_	
Iron	-	-		_	_	-		-	-
Kane					_	_	_	-	-
Millard					_	-		_	
Piute	_	_			_	_	-	_	_
Sevier				-	_		-	_	
Washington						_	_		_
Wayne		-		—	_	-			
REGIONAL TOTALS		-	-						
Northeastern Region				••••					
Daggett	_		-		***	_	_		_
Duchesne		_		-			—		-
Uintah	-					-			
REGIONAL TOTALS		-	_		·	_		_	_
Southeastern Region							•		
Carbon			_		-		_		
Emery	-	_		-		-	_		_
Grand	-			_				_	-
~ ·		-	-			_	_	-	
San Juan	_	-	-			_			-
San Juan REGIONAL TOTALS STATE TOTALS		_						_	 1,100

ľ

ļ

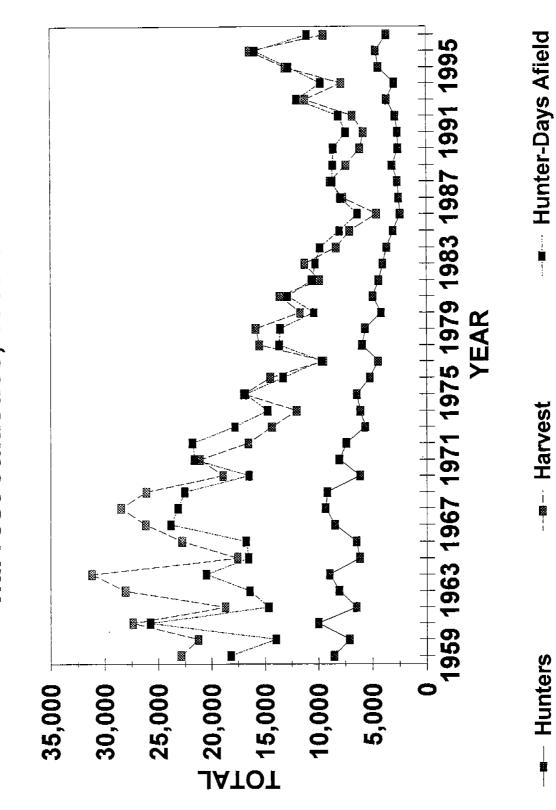


Statewide harvest statistics, when compared to 1996, showed a decrease in total hunters and in total harvest. Hunter success (birds per hunter-day) decreased 17 percent and remained below average statewide. Hunter-days afield decreased 31 percent from 1996.

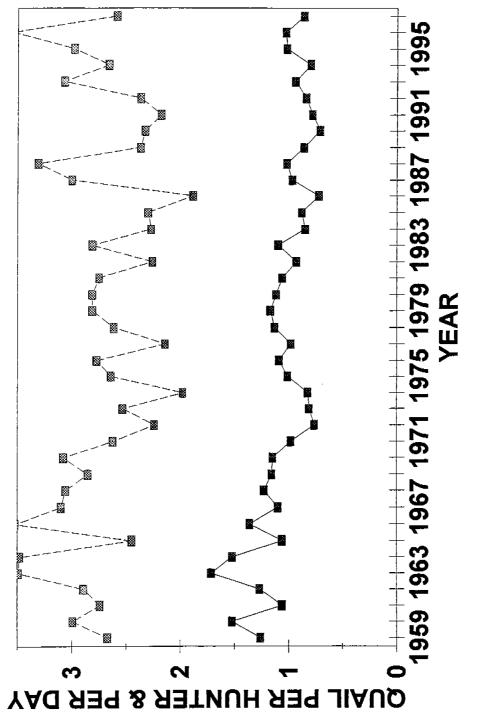
California quail are found primarily in urban areas of Utah. Hunter access to these birds is limited.



Figure 1. Statewide trends of quail harvest statistics, 1959-97.







---- Quail Per Hunter-Day ----- Quail Per Hunter

Brood Counts

Results of the annual random brood counts for quail for 1997 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. Gambel's quail long period waterhole count trends are shown in Table 10. Survey results for 1997 compared to 1996 and the 10-year (1987-96) average follow:

	<u>1997</u>	Percent change from 1996	Percent change from Average
Total quail observed	82		-72
Young per 100 adults	290		-5
Mean brood size	6.67		-7
Quail observed per 100 hours	2,343		+16
Total hours effort	3.5		-81

Harvest

Results of the annual hunter questionnaire for 1997 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 1997 season to 1996 and the 38-year average follow:

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Quail hunters	3,637	-21	-31
Quail harvested	9,436	-42	-35
Hunter-days afield	11,016	-31	-18
Quail per hunter-day	0.86	-17	-18
Quail per hunter	2.59	-27	-2

Quail hunters decreased 21 percent from 1996, and remain 31 percent below the long-term average. Quail harvest decreased 42 percent from 1996.

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

Field Bag Checks

No field bag check data was collected in 1997 as shown in Table 11.

Region and	- 63	DistInct Broods		Mean	Mixed Young & Adults		Adults w/o	Total		Youna/	Vehicle	T	Hours of Effort			Birds/
County	*		Young	Brood	Adults	Yound	Yound	Adults	Young	100 Adults	Miles	Vehicle	Horse	Walk	Total	100 H
Northern Region									1							
Box Elder	ł	:	ł	ł	I	1	;	I	1	:	1	I	;	1	1	1
Cache	ł	:	1	;	:	ł	;	I	1	ł	1	1	:	1	1	I
Davis	1	ł	ł	:	I	1	:	:	ł	ł	1	ł	;	1	1	1
Morgan	1	ı	I	1	:	:	:	I	r	ł	1	ł	I	I	ł	1
Rich	1	1	1	:	:	1	:	1	1	I	1	ł	:	1	I	1
Summit	ſ	I	I	ţ	:	1	:	ł	1	I	1	1	ı	:	1	1
Weber	;	1	1	ł	i	I	;	ł	ł	ł	ł	ł	ł	1	1	i
REGIONAL TOTALS	1	I	I	I	1		I	1	1	:	1	1	I	1	1	1
Central Region																
Juab	1	1	ł	1	1	1	ł	1	1	;	:	I	I	ł	1	1
Salt Lake	ł	1	ł	1	1	1	ł	1	1	:	1	1	1	:	1	ł
Sanpete	ł	;	:	1	1	;	1	1	1	1	1	:	1	1	ł	1
Tooele	:	:	I	:	:	ł	1	I	1	1	;	:	:	1	ł	ł
Utah	:	1	I	1	ł	:	ł	:	:	:	ł	ł	:	:	1	;
Wasatch	:	1	1	;	I	:	:	;	:	:	I	I	1	:	ļ	;
REGIONAL TOTALS	;	1	1	1	ł	ł	1	1	;	1	1	I	1	:	1	1
Southern Region																
Beaver	1	:	:	1	;	ł	;	1	1	ł	ı	1	:	ł	1	1
Garfield	I	I	I	I	1	I	1	:	ł	1	1	1	1	1	ł	1
lron	ł	i	1	1	ı	1	I	I	ł	;	1	1	ł	I	1	I
Kane"	ł	ı	1	1	ł	ł	ł	1	1	1	1	1	I	1	1	ł
Milard	ł	I	I	1	ı	1	1	1	1	ł	1	ł	1	I	ł	1
Plute	1	ł	1	I	I	I	1	I	1	1	t	ł	1	1	1	ł
Sevier	t -	1	1	1	I	ł	1	1	1	1	ı	1	1	1	I	I
Washington"	9	-0	ę	6.67	I	3	16	21	61	290	1	3.5	1	1	3.5	2,343
wayne"	1	1	:	:	1	1	1	•	1	1		1	1	1	1	1
REGIONAL TOTALS	8	0	9	6.67	•	21	16	21	8	290	-	3.5	0	0	3.5	2,34,3
Northeastern Region	1	I	!	1	1	I	ł	ı	ł	:	ł	I	ı	1	1	I
Daggett	ı	I	;	I	1	I	1	1	I	ł	ı	ł	1	2	1	ł
Ducnesne	;	:	:	L	ł	ł	1	1	1	1	ı	I	ł	1	1	3
UINtan Deroioning Control	,	2	1	•	1	I	1	1		1	:	I	:	1	1	1
REGIONAL TOTALS	;	1	1	1	;	1	1	1	1	ł	I	ł	t	1	1	1
Southeastern Region	I	ł	ł	1	1	ł	ł	1	I	ł	ı	I	ł	1	1	ł
Carbon	1	I	1	1	;	1	1	1	ł	ł	1	I	1	1	ł	;
Emery	1	I	ī	1	1	I	ł	ł	1	1	1	1	1	1	1	1
Grand	ł	I	ł	1	1	1	ł	t	I	I	I	I	ı	ł	1	ł
San Juan	1	1	I	1	I	1	I	1	2	1	2	ł	1	1	1	ľ
REGIONAL TOTALS	1	1	1	ł	I	I	1	1	ı	1	1	1	1	1	1	1
0 4 4 4 1 4 5 4 4 1 5 1 5 4 4 5 5 5 5 5 5	•			20.0	c	10	40		24	000		4	•	•		

Î

O a strategy												
county	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-1996
Northern Region												
Box Elder	ł	ł	I	ł	ł	ł	I	ł	1	ł	ł	
Cache	ł	ł	ł	1	1	ł	ł	ł	ł	ł	ł	
Davis	ł	1	ł	ł	ł	ł	ł	ł	I	ł	I	
Morgan	ł	;	1	1	I	ł	ł	ł]	1	ł	
		1			1				Į	1	ł	
KICU	1	I	ł	I	I	ł	ł	1	ł	;	I	
Summit	ł	ł	1	1	ł	1	1	ł	ł	ł	ł	
Weber	1,400	ł	1	1	ł	ł	ł	1	I	ł	1	
REGIONAL TOTALS	1,400	224	1	656	:	1	1	1	3	1	1	760
Central Region										ł		
Juab	1	ł	1	1	I	ł	I	ł	ł	1	ł	
Salt Lake	ł	I	I	I	I	1	I	1	ł	ł	ł	
an Lanc			ł	ł	ł	ł	l	I	ł	ł	ł	
oanpere	ł	1	ł	I	I	1	ł	ł	1	I	I	
Tooele	3	ł	1	1	1	I	1	1	:	1	ł	
Utah	220	1	ł	ł	006	ł	ł	1	ł	I	ł	
Wasatch	I	1	;	1	ł	ł	ł	1	1	ł	ł	
REGIONAL TOTALS	220	ł	I	:	906	1	1	1	1	1	1	560
Southern Region										1		
Beaver	1	ł	ł	I	ł	I	I	1	I	I	ł	
Garfield	ł	ł	ł	ł	ł	ł	1	1	I	ł	ł	
Iron	I	;	1	1	ł	ł	ł	ł	ł	ł	1	
Kane*	ł	I	1	ı	I	I	1	I	I	ł	I	
Millard	545	790		179	1	ł	ł	I	I	ł	1	
Piute	ł	ł	ł	1	ł	ł	ł	1	1	ł	ł	
Sevier	I	1	1	1	ł	ł	1	1	ł	1	1	
Washington*	250	126	194	367	ł	1	294	132	194	ł	290	
Wayne*	I	ı	ł	1	1	ł	1	ł	1	ł	1	
REGIONAL TOTALS	272	242	194	252	1	1	294	132	194	1	290	226
Northeastern Region										1	1	
Daggett	ł	1	:	1	I	1	I	ł	ł	I	1	
Duchesne	ł	300	1	ł	375	1	400	1	ł	ł	I	
Uintah	1	126	420	667	I	370	333	1	145	ł	1	
REGIONAL TOTALS	1	177	420	667	375	370	336	1	145	1	1	356
Southeastern Region										1	1	
Carbon	I	I	ł	ł	1	767	I	ł	1	ł	1	
Emery	1	I	1	ł	ł	ł	ł	ł	I	:	ł	
Grand	1	ł	1	ľ	ł	ł	ł	1	1	1	1	
San Juan	I	1	I	I	ł	1	1	I	I	I	ł	
REGIONAL TOTALS	l	1	1	1	1	767	1	1	. 1	1	1	767
STATE TOTALS	224	376	000	100	101	163	900	4 2 3	100		000	000

Table 2. Trend of quail young per 100 adults, 1987-97

126

Ą

Region and						Year			1			Average
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	ł	;	ł	1	ł	I	1	ł	I	ł	ł	
Cache	ł	I	ł	ł	ł	ł	ł	ł	I	ł	ł	
Davie		C 33		14 00								
	ł	· · · ·	I	00.1	I	ł	ł	ł	ł	ł	ł	
Morgan	ł	I	I	I	ł	ł	ł	ł	ł	ł	ł	
Rich	ł	ł	ł	ł	ł	ł	1	ł	I	ł	ł	
Summit	ł	1	ł	ł	ł	ł	ł	ł	ł	ł	ł	
Weber	1	14.00	ł	ł	ł	1	ł	ł	1	ł	ł	
DEGIONAL TOTALS	14 00	5 22		11 20								10.28
Central Region	20.1	22.0		8				ł		I	I	20.0
Juab	1	1	ł	ł	ł	ł	ł	ł	ł	ł	ł	
Salt I ako	Ì	5	1	;	1	ł	ł	I	ł	1	ł	
	ł	i				}				ł		
Sanpere	1	1	ł	ł	ł	ł	ł	ł	ł	ł	ł	
Tooele	ł	ł	ł	ł	ł	ł	ł	ł	ł	ł	1	
Utah	11.00	I	ł	ł	9,00	I	ł	ł	I	ł	ł	
Wasatch	1	I	ł	ł	ł	ł	1	ł	I	ł	ł	
REGIONAL TOTALS	11.00	1		:	00 6	1	1	1	1	1	:	10.00
Southern Region												
Beaver	I	I	ł	1	ł	1	I	ł	I	ł	ł	
Garfield	ł	I	I	I	ł	ł	I	ł	I	I	ł	
Iron	1	1	I	I	ł	ł	1	ł	I	I	ł	
Kane*	ł	1	I	ł	1	1	ł	١	ł	1	ł	
Millard	12.00	11.28	ł	12.50	I	ł	I	1	1	ł	ł	
Piute	1	ł	1	ł	I	I	I	1	1	ł	}	
Sevier	ł	ł	ł	I	ł	ł	1	ł	1	1	ł	
Washington*	5,59	4 64	I	11 00	1	1	6 05	6 00	6 60	I	6.67	
Wavne*	2		1	3	1	1	3	; 1	; ;	I	5 1	
REGIONAL TOTALS	616	7 99		11 00			8 05	6 00	6.60		6 67	717
Northeastern Region	2						2012	3	2	1	5 1	
Daggett	I	1	I	I	ł	ł	ł	1	1	I	ł	
Duchasna	ł	000	ł	ł	ł	1	4 00	ł	l	1	1	
Lintah	I	8 50	4 50	6 70	1	7 AN	00 2	ł	7 50	1	1	
DEGIONAL TOTAL S		8 4F	A KO	6 70		2 40	5 3E		7 20			6 75
Southeastern Region		2	201				24.0		201	1	1	
Carbon	I	I	ł	1	ł	7.67	i	ł	1	I	ł	
Emery	1	I	I	ł	ł	1	I	1	ł	ł	I	
Grand	1	ł	I	I	ł	1	ł	1	I	ł	ł	
San Juan	i	ł	ł	ł	I	1	I	I	I	I	1	
REGIONAL TOTALS	l	I	1	I	ł	7.67	1	1	I	ł	I	7.67
		1							i i			

County 1987 1988 1989 1990 1991 199 Box Elder	1992		1		-	1	1987-96 1,300 1,300
Thegion let $ -$							1,300
ler i 1,100							1,300
Image Image <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>1,300</td></t<>							1,300
Image: sector secto							1,300
Image: constraint of the sector of the s							1,300
Image: state of the state o							1,300
t -							1,300
t -							1,300
VAL TOTALS 1,500 Region Region Region Region Region 1,600 1,000 MAL TOTALS 1,600 In Region In Region							1,300
NAL TOTALS 1,500 1,100							1,300
VAL TOTALS 1,500 1,100		1 1 1 1 1 1 1 1			1 1 1 1 1	1 1 1 1 1 1 1	1,300
Region		1111111					1,300
(e -							1,300
(e -					1 1 1		1,300
h 1,600 - - 1,000 h - - - 1,000 mRegion - - - 1,000 mRegion - - - 1,000 mRegion - - - 1,000 gton* 2,029 530 53 1,050 watern Region - - - - ine - - - -							1,300
b 1,600 - - 1,000 h - - - 1,000 MAL TOTALS 1,600 - - 1,000 MRegion - - - 1,000 m Region - - - 1,000 m Region - - - 1,000 gton* 2,029 530 53 1,050 - vAL TOTALS 1,958 527 53 1,013 - ustern Region - - - - - - te -					11		1,300
h h 1,000 MAL TOTALS 1,600 1,000 m Region 1,000 m Region 1,000 			1 1 1 1	1 1 1 1	1	1 1 1	1,300
1,600 - - 1,000 tch - - 1,000 nem Region - - 1,000 nem Region - - - 1,000 nem Region - - - 1,000 eld - - - - - * - - - - - - eld - - - - - - - * - <td></td> <td>I I I I I</td> <td></td> <td>1 1 1</td> <td>-</td> <td>1 1</td> <td>1,300</td>		I I I I I		1 1 1	-	1 1	1,300
ch	1 1 1 1 1	1 1 1 1	1 1 1	1	ł	I	1,300
NAL TOTALS 1,600 1,000 em Region - 1,000 f - - 1,000 id - - id - - id - - id 1,303 1,271 975 ngton* 2,029 530 53 1,050 * iastern Region it isne	1 1 1 1	1 1	III	I	ł		1,300
Immedia		1 1	1		1		22
r		11	I		:		
Id 1,303 1,271 975 ngton* - ngton* 2,029 530 53 1,050 ** - - - ** - - - - ** - - - - ** - - - - - ** - - - - - ** - - - - - ** - - - - - ** - - - - - ** - - - - - ** - - - - - ** - - - - - ** - - - - - ** - - - - - ** - - - - - <	1 1	ł		1	ł	ł	
ngton* 2,029 530 53 1,050	1		1	ł	ł	ł	
ngton* 2,029 530 53 1,050		ł	ł	1	ł	ł	
I 1,303 1,271 - 975 - - - - - - - - ngton* 2,029 530 53 1,050 - * - - - - - - * - - - - - - * - - - - - - * - - - - - - * - - - - - - * - - - - - - * - - - - - - * - - - - - - * - - - - - - * - - - - - - * - - - - - - * - - - - - - * - - - - - - * - - - - - -	I	I	ł	ł	1	1	
r	ł	1	ł	1	ł	I	
r	3	ł	1	1	ł	1	
2,029 530 53 1,050 	ľ	1	2	1	1	ł	
z,uzs 330 33 1,030 CTALS 1,958 527 53 1,013 I Region 356 475 1 800 371 767	ľ		0000	040	•		
L TOTALS	1	,/88	2,903	1,250	N 1	2,343	
L TOTALS 1,958 527 53 1,013 ern Region	1		1	1	1	1	
ern Region	-	7,788	2,963	1,250	- 2,	2,343	2,384
	1				ł	I	
		ł	ł	1	ł	1	
1 800 371 767	1	250	1	ł	ł	1	
	4.700 3	3.033	ł	1.520	1	I	
NAL TOTALS - 717 371 767 475	4.700 1	1.920	1	1.520	I		1.496
					1		
: : :	1,300	ł	ł	I	1	1	
1 1 1	1	I	ł	1	ł	1	
Grand	I	ł	1	ł	ł	1	
San Juan	I	ł	1	I	1	1	
T TOTALS	1.300	1	1	1	1		1.300
1 984 823 524 1 564 580		5 531	2 Q63	1 400	6	242	2 0 25

Ĩ

I

Ĵ

j

j

Ĩ

Í

Table 5.	Summary of	quail	hunter	success	anđ	distribution	of	harvest	and	hunting
	pressure by	y regio	on and o	county,	1997.					

REGION AND	SAMPLE SIZZ*	HUNTER-DAYS	BIRDS	BIRDS PER	% OF	\$ OF
COUNTY		AFTELD	BAGGED	. HUNTER-DAY	PRESSURE	EARVEST
NORTHERN REGION						
BOX ELDER	3	124	0	0.00	1.13	0.00
CACHE	2	103	41	0.40	0.94	0.44
DAVIS	6	519	394	0.76	4.72	4.19
MORGAN	0	0	0	0.00	0.00	0.00
RICH	0	0	0	0.00	0.00	0.00
SUMMIT	0	0	0	0.00	0.00	0.00
WEBER	9	415	166	0.40	3.77	1.76
REGIONAL TOTALS	20	1,163	602	0.52	10.57	6.39
CENTRAL REGION						
JUAB	2	83	20	0.25	0.75	0.22
SALT LAKE	2	62	83	1.33	0.57	0.88
SANPETE	1	41	62	1.50	0.38	0.66
TOOELE	3	249	0	0.00	2.26	0.00
UTAH	23	1,330	831	0.63	12.08	8.81
WASATCH	2	103	0	0.00	0.94	0.00
REGIONAL TOTALS	33	1,870	997	0.53	16.98	10.57
SOUTHERN REGION						
BEAVER	0	0	0	0.00	0.00	0.00
GARFIELD	1	20	Ō	0.00	0.19	0.00
IRON	0	0	0	0.00	0.00	0.00
KANE	0	0	Ō	0.00	0.00	0.00
MILLARD	8	457	436	0.95	4.15	4.63
PIUTE	0	0	0	0.00	0.00	0.00
SEVIER	6	249	83	0.33	2.26	0.88
WASHINGTON	28	1,870	1,579	0.84	16.98	16.74
WAYNE	1	20	20	1.00	0.19	0.22
REGIONAL TOTALS	44	2,618	2,120	0.81	23.77	22.47
NORTHEASTERN REGION						
DAGGETT	0	0	0	0.00	0.00	0.00
DUCHESNE	38	2,535	2,452	0.97	23.02	25.99
UINTAH	36	2,411	3,097	1.28	21.89	32.82
REGIONAL TOTALS	74	4,946	5,549	1.12	44.91	58.81
SOUTHEASTERN REGION						
CARBON	0	0	0	0.00	0.00	0.00
EMERY	8	249	166	0.67	2.26	1.76
GRAND	1	41	0	0.00	0.38	0.00
SAN JUAN	0	0	0	0.00	0.00	0.00
REGIONAL TOTALS	9	290	166	0.57	2.64	1.76
UNKNOWN	1	124	0	0.00	1.13	0.00
STATE TOTALS	181	11,016	9,436	0.86	100.00	100.00

_

*Total hunter-trips from questionnaire returns.

Table 6. Summary of quail bagged per hunter-day by region and county, 1990-97.

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	0.71	0.38	1.21	0.36	0.75	1.21	1.18	0.00
Cache	0.10*	0.00*	1.00*	0.00*	1.86*	0.25*	1.00*	
Davis	0.15	0.83	0.60	1.25	0.64	0.33	0.78	0.76
Morgan	2.00*	0.00*	0.00*		0.00*	0.00*	0.00*	
Rich	0.00*	0.00*	0.00*		4.00*	0.00*	0.00*	
Summit	0.00*	0.00*			0.00*	0.00*	0.00*	
Weber	0.50*	0,54	0.56	0.73	0.22	1.43	0.64	0.40
REGIONAL TOTALS	0.39	0.41	0.63	0.55	0.57	0.72	0.92	0.52
Central Region								
Juab	0.19	7.25	0.00	1.50	1.67	0.00	1.00	0.25
Salt Lake	0.42	2.17	1.89	0.00	1,40	0.00	3.00	1.33
Sanpete	0.00*				1.00*	0.00*	1.67*	
Tooele	0.60*				1.43*	0.00	0.00	0.00
Utah	0.75	0.61	0.54	0.48	0.63	1.18	0.74	0.63
Wasatch	0.00*				2.00*	1.63*	0.33*	
REGIONAL TOTALS	0-55	0.88		0.47	0_85	1.15		0.53
Southern Region								
Beaver	0.00	0.00	0.00	0.00	0.40*	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	1.63	1.00*	0.67*	0.97*	
Kane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Millard	1.06	0.08	1.50	0.58	0.73	0.75	0.73	0.95
Piute	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sevier	0.00	1.80	0.47	0.43	0.50	0.15	1.29	0.33
Washington	0.60	0.84	1.04	1.57	0.93	1.08	1.15	0.54
Wayne	0.00	0.00	0.00	0.00	5.00*	0.00*	3.00*	1.00
REGIONAL TOTALS	0.66	0.71	1,01	1.25	0.90	1.00	1.07	0.81
Northeastern Regio	האר							
Daggett	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Duchesne	0.91	1.16	1.01	1.04	1.10	1.27	1.22	0.97
Uintah	0.98	0.47	0.90	0.63	0.76	0.75	1.41	1.28
REGIONAL TOTALS	0.95	0.65		0_82	0.88	OF COMPANY AND	1.33	100 - 1 - 1 - 1 - 1 - 1 - C - C - C - C - C
o								
Southeastern Regio					_			
Carbon	1.11	4.50	1.12	1.33	0.00	3.67	0.00	0.00
Emery	1.86	2.11	0.97	0.92	0.57	1.19	0.29	0.67
Grand	2.00	0.00	0.00	0.00	0.00	2.80	0.85	0.00
San Juan	0.00	0.00	0.00	0.00	0.00	1.50	0.00	0.00
REGIONAL TOTALS	1.68	2.85	1.02	0.91	0.49	1.57	0.38	0.57
Unknown counties	0.00	0.00	1.50	0.00	6.00	0.00	0.00	0.00

*Closed Season

Table 7. Percentage distribution of quail harvest by region and county, 1990-97.

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	4.05	1.51	4.45	0.68	1.35	2.54	5.68	0.00
Cache	0.34*	0.00*						
Davis	1.35	1.51	2.36	1.70	1.57	2.24	0.99	4.19
Morgan	0.68*	0.00*						
Rich	0.00*							
Summit	0.00*	0.00*						
Weber	5.41	2.11	3.67		1.80			1.76
REGIONAL TOTALS	11.83		11_78			10.15		6.39
Central Region								
Juab	1.69	8.74	0.00	0.51	1.12	0.00	0.14	0.22
Salt Lake	2.70	3.92	4.45	0.00	3.15	0.00	1.28	0.88
Sanpete	0.00*	0.00*						
Tooele	1.01*	0.60*				0.00	0.00	0.00
Utah	16.89	17.17	12.31	8.49	10.56	11.79	9.23	8.81
Wasatch	0.00*	0.00	0.00*					
REGIONAL TOTALS				9.17		15.67		
Southern Region								
Beaver	0.00	0.00	0.00	0.00	0.90*	0.00*	0.00*	0.00
Garfield	0.00	0.00	0.00	0.00	0.90*			
Iron	0.00	0.00	0.00	2.21	2.70*			
Kane	0.00	0.00	0.00	0.00	0.00	0.00	4.20"	
Millard	5.74	0.90	6.28	4.41	4.94	0.00		0.00
Piute	0.00	0.00	0.28	4.41 0.00	4.94		2.27	4.63
Sevier	0.00	2.71	1.83	2.55	0.00	0.00	0.00	0.00
Washington	17.57	34.64	13.88	48.05		0.30	3.13	0.88
Wayne	0.00	0.00	0.00		39.33	28.81	9.94	16.74
EGIONAL TOTALS	23.31	38.26	21.99	0.00 57.22	1.12* 49.22	0.00* 30.75	0.43* 20.03	0.22 . 22.4 7
	ne Samodana () andre ') na Vistana keloninikanja				- ALCOLOGIC TARABATI	inan Kata hini T anà		
lortheastern Regi								
Daggett	0.00	0.30	0.00	0.00	0.00	0.00	0.85	0.00
Duchesne	7.10	6.63	18.33	9.00	7.64	19.85	26.56	25.99
Uintah	13.85	8-13	18-85-	6,11	9.44	12.84	24.43	3282
EGIONAL TOTALS	20.95		37.18	15.11	17:08	32.69	51-85	58.81
Southeastern Regi				_				
Carbon	3.38	5.42	4.97	0.68	0.00	1.64	0.00	0.00
Emery	17.57	5.72	7.33	7.98	6.07	5.67	2.70	1,76
Grand	0.68	0.00	0.00	0.00	0.00	2.09	1.56	0.00
San Juan	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0,00
EGIONAL TOTALS		11.15	12.31	8.66	6.07	9.85	4.26	1.76
nknown counties	0.00	0.00	0.00	3.57	0.00	0.90	0.85	0.00
TATE TOTALS	100.00				100.00	100.00	100.00	

*Closed Season

.

Table 8. Percentage distribution of quail hunting pressure by region and county, 1990-97.

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	4.09	3.06	3.08	1.75	1.45	2.14	4.98	1.13
Cache	2.40*	1.41*			1.27*	1.83*		
Davis	6.25	1.41	3.30	1.27	1.99	6.88	1.32	4.72
Morgan	0.24*	0.00*			0.72*	0.00*		
Rich	0.00*	0.00*			0.18*	0.00*		
Summit	0.72*	0.71*			0.00*	0.00*		
Weber	7.69	3.06	5.51	4.77	6.51	3.52	4.10	3.77
REGIONAL TOTALS	21.39	- 1 · · · · · · · · · · · · · · · · · ·	15.64	A ADD DOWN & RED WASHING IN IN	12 12	へきょう・グ たいせいかんし	12.15	
Central Region								
Juab	6.49	0.94	0.22	0.32	0.54	0.31	0.15	0.75
Salt Lake	4.57	1.41	1.98	0.64	1.81	0.00	0.44	0.57
Sanpete	0.24*	0.94*	0.00*	0.16*	0.18*	0.61*	0.44*	
Tooele	1.20	1.65*	1.54*	0.48*	1.27*	0.31	0.15	2.26
Utah	16.11	22.12	19.16	16.54	13.56	10.25	12.88	12.08
Wasatch	0.24*	0.00*	0.22*	• 0.00*	0.72*	2.45*	2.64*	
REGIONAL TOTALS	28.85	27.06	23.13	18.13	18.08	13.92	16.69	1 6.98
Southern Region								
Beaver	0.00	0.00	0.00	0.16	1.81	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	0.22	1.27	2.17	1.83*	4.54*	
Kane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Millard	3.85	8.47	3.52	7.15	5.43	0.61	3.22	4.15
Piute	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sevier	0.00	1.18	3.30	5.56	0.36	1.99	2.49	2.26
Washington	20.91	34.24	11.23	28.62	34.18	27.22	8.93	16.98
Wayne	0.00	0.00	0.00	0.16	0.18	0.00*	0.15*	
REGIONAL TOTALS	25.00	41.89	18.28	42.93	44.12			23.77
er o. onio koloniski prislavni i en istiiniski piiski piiski piiski piiski piiski piiski piiski piiski piiski p	nigalahistaka (MARA) ni dalah Majatanga darah ka	alaan in alaan dhaan dhiga dhiga dhiga	din din ta da	en tradistación destacem	i mali i di la distributi dana adala i res	aa kano ahti kaanjaalah administratika (palikatik	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - La cala di senta da cala da cal	a-gammaralanana
Northeastern Regio								
Daggett	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00
Duchesne	5.53	4.47	15.20	8.11	5.61	16.06	22.40	23.02
Uintah	10.10	13.41	17.62	9.06	9.95	17.43	17.86	21.89
REGIONAL TOTALS	15.63	.18.12	32.82	17.17	15.55	33.49	40.27	44.91
Southeastern Region								
Carbon	2.16	0.94	3.74	0.48	0.54	0.46	0.00	0.00
Emery	6.73	2.12	6.39	8.11	8.50	4.89	9.66	2.26
Grand	0.24	0.00	0.00	0.32	0.90	0.76	1.90	0.38
. San Juan	0.00	0.00	0.00	0.00			0.00	0.00
REGIONAL POTALS	9.13	3.06	10.13	8.90	9.95		11.57	2.64
Unknown counties	0.00	0.24	0.00	2.23	0.18	0.15	0.00	1.13
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Closed Season

Table	9. Statewide summary	y of a	ruail harvest	statistics.	1951-97.

Į

Î

Ń

Year	Total Hunters	Total Harvest	Hunter-Davs Afield	Quail Per Hunter-Day	
1951	3,856	6,362	7,069	0.90	<u>Qual Per Hunt</u> 1.65
1952	2,694	6,105	5,500	1.11	
1953	2,676	5,753	4,494	1.28	2.27
1954	3,855	7,479	8,696	0.86	2.15
1955					1.94
1956		-	-	0.17	2.10
1957	_	-		-	2.26
1958	-		-	-	1.85
1959	8,554			_	3.73
1960		22,854	18,174	1.26	2.67
1961	7,117	21,272	13,971	1.52	2.99
	9,980	27,362	25,746	1.06	2.74
1962	6,462	18,710	14,660	1.27	2.89
1963	8,059	28,088	16,383	1.71	3.49
1964	8,951	31,189	20,510	1.52	3.48
1965	6,163	17,532	16,528	1.06	2.45
966	6,465	22,771	16,720	1.36	3.52
1 9 67	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	
977	4,446	9,496	9,646	0.98	2.77
978	5,924	15,491	13,649		2.14
979	5,632	15,821	13,550	1.13	2.61
980	4,156	11,690		1.17	2.81
981	4,946		10,400	1.12	2.81
982	4,368	13,586	12,843	1.06	2.75
983		9,870	10,575	0.93	2.26
984	4,012	11,248	10,232	1.10	2.81
	3,654	8,303	9,805	0.85	2.27
985 985	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	8,68 <u>2</u>	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
992	2,861	6,788	8,068	0.84	2.37
993	3,649	11,192	11,952	0.94	3.07
994	2,936	7,822	9,721	0.80	2.66
995	4,374	13,023	12,712	1.02	2.98
996	4,622	16,351	15,862	1.03	3.54
997	3,637	9,436	11,016	0.86	2.59
otals					2.33
951-97)	224,975	617,909	575,801	_	_
verages					

Table 10. Gambel's quail fong period waterhole count trend on the west slope of the Beaver Dam	Mountains, Washington County, 1978-97. These counts have been conducted since 1962.	-
Table 10. Gambel's	Mountains, Washing	

							•	Year												4	Verage
Index	1978	1979	978 1979 1980 1981 1982	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 1	1991 1	1992	1993	1994	1995	1996	1997	1978-96
Total Volind			72	37	85	114	166	47	163	348	59	35	33		415	465	135	33	ł	61	152
Total Aduite			52	25	33		8 6	11	48	139	47	18	6		128	158	102	17	ł	21	57
Total Otal		330	124	62	118	128	252	58	211	487		53	42	243	543	623	237	50	I	82	209
Yound per 100 Adults		353 329	138	148	258	~	193	427	340	250	126	194	367		324	294	132	194	1	290	304
						1															

Į

	:	ALL HUNTS					Ū	COMPLETE HUNTS	TS		
Region and Countv	Total Parties	Total Huntere	Total	Total	Birds/	Complete		Total		Birds/	Birds/
Northern Region	2011	Innice	elhou			SIUNH	HUNTERS	Hours	Birds	Hunter	100 Hz
Box Elder	ł	ł	ł	I	•	1	ł	ł	1		
Cache	I	I	ł	1	1	1	ł		I	ł	ł
Davis	ł	ł	I	ł	1	:	ł	1	8	1	ł
Morgan	ł	ł	ł	ł	1	1	1	1	F I	1	ł
Rich	I	ł	1	1	1	1		ł	ł	ł	ł
Summit	I	1	8			1	ł	1	I	I	ł
Weber	1		8	1	ĭ	1	ł	I	1	ł	ł
DEGIONAL TOTALS		3	1	1	I	1	1	1	1	:	1
- AIVINAL IVIALS	1	8	1	ł	1	1	1	1	I	I	ł
Central Region	I	ł	ł	1	1	;	ł	1	Ŧ	1	:
Juab	ł	ł	ł	ł	:	;	1	ł	I	ł	1
sait Lake	ł	ł	ł	1	, I	ł	1	1	1	1	i
Sanpete	1	I	1	1	•	1	1	ł	1		1
Tooele	ł	;	1	ł	1	I	ł		ł	ł	l
Utah	ł	1	I	ł	1	ł	: 1		I	ł	1
Wasatch	ł	I	I	ł	1	_	[]	1	ł	1	1
REGIONAL TOTALS	1	1	1				l	ł	I	1	1
Southern Region	1						1	1	1	1	I
Beaver	ł	[]	I	1	1	1	I	1	I	ł	ł
Garfield	1	ł	ł	ł	1	I	ł	ł	I	ł	ł
Iron	[]	ł	ł	1	ł	1	1	ł	I	ł	I
Kane	1	ł	1	I	1	1	:	1	1	ł	I
Millard	ł	ł	I	ł	: 	ł	ł	I	ł	ł	ł
Dinta Dinta	I	ł	ł	I	I	1	I	ł	l	ł	ł
lie Liet	ł	1	ł	1	;	ł	ł	I	I	I	ł
Jevier Monhimter	1	ł	I	1	1	I	1	ł	ł	1	ł
Snington	1	ł	ł	ł	1	I	I	I	I	ł	I
Wayne Broioilli Tomii o	1	I	:	1	1	I	I	ł	ł	ł	I
REGIONAL FULALS	1	1	I	1	1	1	1	E	1	1	1
Norrheastern Kegion	ł	ł	ł	ł	1	1	ł	I	1	I	1
Daggett	ł	1	i	ł	I	1	ł	1	I	ł	I
Ducnesne	ł	I	ľ	ł	I	1	I	I	I	ł	ł
Uintah	8	I	1	1	1	ł	1	1	I	I	I
REGIONAL TOTALS	1	ł	I	I	1		3	I			
Southeastern Region											1
Carbon	ł	ł	ł	I	ł	ł	ł	I	1	1	ł
Emery	ł	1	ł	1	1	1	ł	I	ł]	[]
Grand	ł	I	ł	ł	1	ł	1	ł	ł	I]
san Juan	1	1	1	ł	I	1	I	ł	ł	I	1
REGIONAL TOTALS	1	ł	ł	I		1	1	1			
									l		



The 1997 hunt data indicated slightly increased hunting pressure on Huns when compared to 1996. The number of Huns harvested decreased 32 percent in 1997. Total hunters and days afield remain 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 (CRP). 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. In 1993, the dramatic decrease in number of Huns harvested probably resulted because of poor over-winter survival during 1992-93. Renewal of CRP under the 1996 Farm Bill should help to increase and maintain Hun populations in northern Utah.

Brood Counts

Results of the annual random brood counts for 1997 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 1997 compared to 1996 and the 10-year (1987-96) average follow:

-		Percent change from	Percent change from
	<u>1997</u>	<u>1996</u>	<u>Average</u>
Total Huns observed			
Young per 100 adults	→ –		
Mean brood size			
Huns observed per 100 hours			
Total hours effort			

No brood count data was collected in 1997.

Harvest

Hunter Questionnaire

Results of the annual hunter questionnaire for 1997 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 1997 season compared to 1996 and the previous 38-year average follow: **Percent Percent**

		change	change	
		from	from	
	<u>1997</u>	<u>1996</u>	<u>Average</u>	
Hungarian partridge hunters	2,382	+1	-32	
Hungarian partridge harvest	5,071	-32	-31	
Hunter-days afield	6,443	-13	-24	
Huns per hunter-day	0.79	-22	-3	
Huns per hunter	2.18	-33	+6	

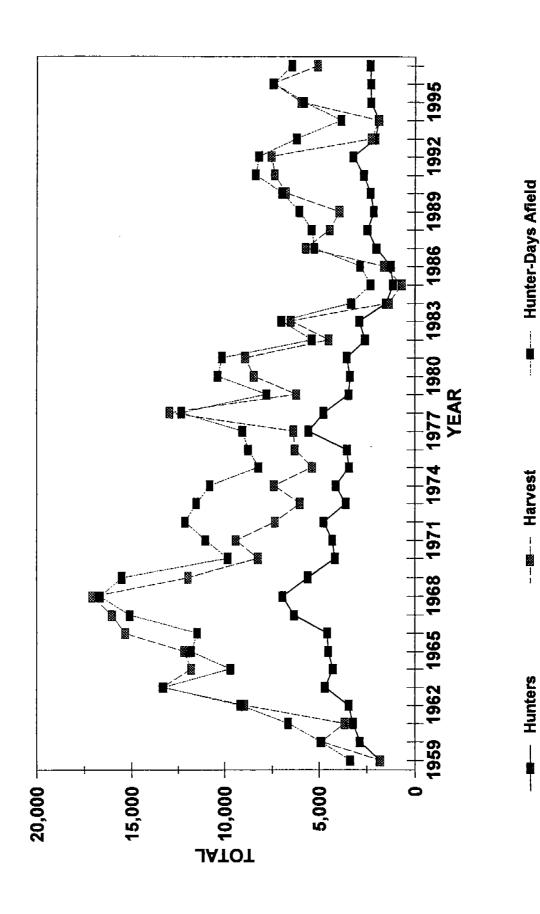
Hungarian partridge hunting success decreased 32 percent from 1996. Harvest was 31 percent below the long-term average.

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

Field Bag Checks

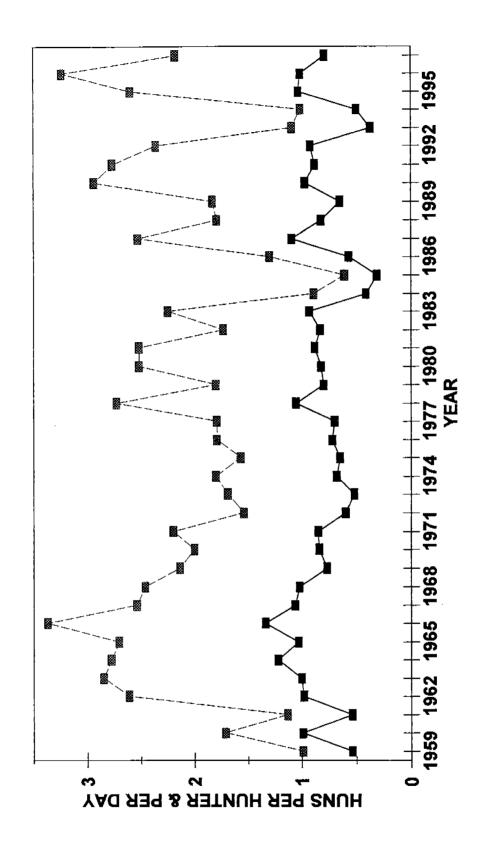
Hungarian partridge field bag check data collected in 1997 is shown in Table 10. Hunter success trends determined via this method are shown in Table 11. No data was collected in 1997.





Ì

Figure 2. Statewide trends of Hun hunter success rates, 1959-97.



Internal # Burrows Internal Int	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Distinc	Distinct Mixed Mixed	Mach	Mixed Yo	Young	المعادية	T.4.1	Tetel	,				2		·
Freejon Image: second sec	Cilener Region Cilener Regio		*	Adults	Yound		Adults Y	Duno		Adults	Young	100 Adult	Venicle Miles	/ehicle	Horse Horse		Total	Birds/
rt or c c c c c c c c c c c c c c c c c c	Constrained	Jorthern Region						7										
AL TOTAL	cristentione c	ox Elder	ł	ł	1	;	1	ļ	I	;	1	:	J	I	ł	;	ł	1
All TOTAL	000000000000000000000000000000000000	acha	1	1	ł	1	ł	ł	ł	-						ł	ł	I
AL TOTAL	Mark Description Descrip_1 = 12 Description <	aute	I	ł	ł	ł	ł]	I	I	I	I	ł	ł	ł	:	ł	1
Total - <td>Organization Image: constrained by the c</td> <td>avis</td> <td>I</td> <td>:</td> <td>1</td> <td>ł</td> <td>1</td> <td>I</td> <td>I</td> <td>ł</td> <td>ł</td> <td>ł</td> <td>ł</td> <td>I</td> <td>ł</td> <td>;</td> <td>1</td> <td>1</td>	Organization Image: constrained by the c	avis	I	:	1	ł	1	I	I	ł	ł	ł	ł	I	ł	;	1	1
1 1	Induction	organ	ł	ł	ł	:	1	1	1	I	ł	ł	ł	1	1	1	;	ł
ML TOTAL	Immunit	ich	ł	ł	ł	ł	ł	1	I	I	1	1	ł	1	ł	ł	I	ł
MI TOTAL	elefer	ummit	ł	ł	1	;	1	:	1	ł	1	1	ł	1	I	:	1	I
WL TOTAL	Celonal. ToTAl	feber	ł	ł	1	:	;	ł	ł	ł	1	:	1	;	1	1	I	ł
al Region	mital Region mital Region atal Region mital Region atal Region mital Region mital Region mital Region mital Region mital Region mital Region mital Region Bistord	FOIDNAL TOTAL	•			1	:		1	:	1							
ale 1	ab lister in the second	entral Region															F	
alse 1	aft data aft da	ciniai itegioli lak				1												
alse :: <	alse -		1	1	ł	ł	1	ł	I	I	ł	1	1	ł	:	ł	ł	:
Ree r	minetes ::	alt Lake	1	ł	1	ł	1	1	1	I	ł	ł	ł	;	1	:	ł	ł
e r	Oele :: :	anpete	ł	1	I	:	ł	1	1	ł	1	:	1	ł	;	ł	ł	ł
Chi I	th I TOTAL I I I I I I I I I I I I I I I I I I I	oele	ł	ł	ţ	ł	1	ł	I	1	1	2	ł	ł	1	ł	ł	1
th -	th	lah	ł	ł	1	I	ł	1	I	I	ł	:	I	ł	1	1	ł	ł
		asatch	ł	ł	1	:	1	ł	1	I	ł	1	I	i	1	1		
NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE O 0 0 ERR 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE O 0 0 ERR 0 0 0 0 0 ERR - 0 0 0	FGIONAL TOTAL	:	:	,	:	1			1	1							
NOT APPLICABLE	NOT APPLICABLE	outhern Region												1				
NOT APPLICABLE	NOT APPLICABLE	arfield																
NOT APPLICABLE	NOT APPLICABLE	Ĕ																
NOT APPLICABLE	NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE 0 0 0 ERR 0 - 0	ane						~	IOT APPLI	ICABLE								
NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE O 0 0 KR - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE O 0 0 ERR 0 0 0 0 ERR - 0 0 0 0 0	illard																
NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE O 0 0 ER 0 0 0 0 0 ER - 0 0 0	NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE 0 0 0 ERR 0 0 0 0 ERR - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ute																
NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE O 0 0 ERR 0 0 0 0 0 ERR - 0 0 0	NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE 0 0 0 ERR 0 0 0 0 ERR 0 - 0	evier																
NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ashington																
NOT APPLICABLE	NOT APPLICABLE NOT APPLICABLE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ayne																
NOT APPLICABLE NOT APPLICABLE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NOT APPLICABLE NOT APPLICABLE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EGIONAL TOTALS																
NOT APPLICABLE NOT APPLICABLE 0 0 0 0 0 0 0 0	NOT APPLICABLE NOT APPLICABLE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ortheastern Regiou	F															
NOT APPLICABLE NOT APPLICABLE 0 0 0 0 0 0 0 0	NOT APPLICABLE NOT APPLICABLE 0 0 0 ERR 0 - 0	aggett																
0 0 0 ER 0 0 0 0 ER - 0	Intah EGIONAL TOTALS Outheastern Region arbon arbon arbon an Juan an Juan I an Juan I ATE TOTALS 0 0 0 RR - 0 0 - 0	uchesne						2	IOT APPLI	ICABLE								
0 0 0 ER 0 0 0 0 ER - 0	EGIONAL TOTALS outheastem Region arbon mery rand an Juan EGIONAL TOTALS 0 0 0 RR 0 - 0 TATE TOTALS 0 0 0 RR 0	intah																
O O O ER O O O O ER - 0	0 0 0 ERR 0 0 0 ERR - 0 - 0	EGIONAL TOTALS																
0 0 0 ER 0 0 0 0 ER - 0	0 0 0 ERR 0 0 0 ERR - 0 - 0	outheastern Regio	=															
0 0 0 ERR 0 0 0 0 ERR 0	0 0 0 ERR 0 0 0 ERR - 0 - 0	arbon																
0 0 0 ERR 0 0 0 0 ERR 0 - 0	0 0 0 ERR 0 0 0 0 ERR - 0 - 0	nery				-		Z	IOT APPLI	ICABLE								
0 0 0 ERR 0 0 0 0 ERR 0 - 0	0 0 0 ERR 0 0 0 0 ERR 0 - 0	rand																
0 0 0 ERR 0 0 0 0 ERR 0 - 0	EGIONAL TOTALS TATE TOTALS 0 0 0 ERR 0 - 0	an Juan																
0 0 0 ERR 0 0 0 0 ERR 0 - 0	IATE TOTALS 0 0 0 ERR 0 0 0 0 0 ERR 0 0	EGIONAL TOTALS																
		TATE TOTALS		0	•	ERR	0	0	0	0	0	ERR	1		0	1	0	ERR

1

Ì

1

Ĩ

Ì

Kegion and				Year		Year						Averag
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
u.												
Box Elder	569	307	ł	396	793	711	I	ł	2,000	ł	I	
Cache	1	400	ł	433	ł	260	ł	ł	ł	ł	ł	
Davis	ł	ł	ł	1	I	ł	ł	ł	I	1	I	
Morgan	ł	ł	ł	ł	ł	ł	ł	ł	I	ł	ł	
Rich	1	1	ł	ł	ł	ł	1	I	ł	1	I	
Summit	I	ł	I	I	ł	ł	I	ł	1	I	ł	
Weber	ł	ł	1	ł	ł	ł	ł	I	1	ł	ł	
REGIONAL TOTALS	569	324	425	400	793	550	:	1	2,000	1	1	723
Central Region										I	1	
Juab	1	ł	I	ł	ł	800	I	ł	I	I	ł	
Salt Lake	ł	ł	ł]	ł	ł	ł		I	ł	ł	
Sanpete	ł	ł	1	ł	ł	ł	ł	ł	1	ł	I	
Tooele	1	1	ł	ł	ł	ł	ł	I	ł	ł	ł	
Utah	1	1	1	ł	ł	ł	ł	ł	1	ł	ł	
Wasatch	1	400	I	ł	ł	I	1	I	ł	I	I	
REGIONAL TOTALS	1	400	1	I	1	800	1	1	1	1	1	009
Southern Region Beaver Garfield Iron												
Kane					NOT A	NOT APPLICABLE	ABLE					
Miliard Dinte												
Sevier												
Washington												
Wayne	1											
REGIONAL TOTALS												
Northeastern Region												
Daggett							ł					
Duchesne							ł					
Uintah							750					
REGIONAL TOTALS	1						750					750
Southeastern Region												
Emery					NOT A	NOT APPLICABLE	ABLE					
Grand San Juan												
REGIONAL TOTALS												
STATE TOTALS	034											

,

1987 1988 1989 1990 1992 1993 1996 1996 1996 1996 1996 1996 1996 1996 1996 1996 1996 1996 1996 1996 1996 1996 1 1 1 1 8 8.60 8.50 8.20 12.50 9.00 20.00	County1987Brn Region11.88Ider11.88In- <tr< th=""><th>8.60 8.60 8.60 4.00 4.00</th><th></th><th></th><th>1991</th><th>1992</th><th>1993</th><th>1001</th><th>3441</th><th>1996</th><th>1997</th><th>20 2001</th></tr<>	8.60 8.60 8.60 4.00 4.00			1991	1992	1993	1001	3441	1996	1997	20 2001
Introduct 11.88 8.50 8.50 8.50 8.50 9.00	ern Region Ider 11.88 In 11.88 In 11.88 In Region 11.88 Al Region 11.88 In Reg	8.60 8.60 4.00 4.00	8.50 8.50 8.50					オカカビ	077)))	->>>	1987-96
Ider 1138 8:50 8:50 8:50 8:50 9:0 - 20.00 - 0 - 20.00 - 20.00 - 0 - 20.00 - 20.00 - 0 - 20.00 - 2 - 20.00 - 0 - 20.00 - 2	Ider 11.88 In 11.88 In 11.88 NAL TOTALS 11.88 In Region 11.88 In Region 11.88 In Charles 11	8.60 4.00 4.00 7.00 7.00 7.00 7.00 7.00 7.0	8:50 8:50 8							1	1	
In <	In Integion Integion Integion Integrated Int	4 4 4 6 1 1 1 1 1 8 8 1 1 1 1 1 4 4 1 00	80 20 8	9 9 9 9	12.50	9.00	1	ł	20.00	ł	ł	
In <	ift	4. 00 4. 00	88 220		1	ł	}	ł	ł	ł	ł	
Interface Interface <t< td=""><td>an</td><td>4.00 4.00</td><td>8.50</td><td> </td><td>ł</td><td>1</td><td>ł</td><td>ł</td><td>ł</td><td>ł</td><td>ł</td><td></td></t<>	an	4. 00 4. 00	8.50		ł	1	ł	ł	ł	ł	ł	
the second secon	nit	4 4 1 1 1 1 1 1 1 1 1 1	8.50	ł	ł	ł	I	ł	ł	ł	1	
It	nit	4 1 1 1 1 1 1 1 1 1 1	8.50		I	I	ł	ł	I	1	ł	
NAL TOTALS - - - - - - - - - - - - - - - 20.00 - 20.00 - 20.00 - 20.00 - 20.00 - 20.00 -	r ONAL TOTALS	8.60 4.00 4.00	8.50	ł	ł	ł	I	ł	ł	I	ł	
Nat rorats 11.88 8.60 8.50 9.50 9.50 9.50 9.50 9.50 9.50 9.50 9.50 9.50 9.50	ONAL TOTALS 11.88 al Region	8.60	8.50	1	I	ł	ł	ł	ł	ł	1	
l Region lee	al Region ake	4.00			12.50	9.00	;		20.00	1	1	11.34
Ke T T T S.00 T T Re T T T T T T T Re T T T T T T T T Re T<	ake ake ete ete transitioner ake transitioner transitioner transitioner ake ete ete ete ete ete ete ete ete ete e	4. 00 4. 00								1	1	
Ite	ake = = = = = = = = = = = = = = = = = = =	4.00	I	ł	ſ	8.00	I	ł	ł	ł	ł	
image	H H AAL TOTALS	4.00	1	ł	ł	1	I	ł	ł	1	;	
ch - - - - - - - MAL TOTALS - - 4.00 - - - - In AL TOTALS - 4.00 - - - - - In Region - - 4.00 - - - - - In Region - - - - 8.00 - - - In Region - - - - 8.00 - - - In AL TOTALS - - - - - - - - In AL TOTALS - - - - - - - - - In AL TOTALS - - - - - - - - - In AL TOTALS - - - - - - - - In AL TOTALS - - - - - - - - In AL TOTALS - - - - - - - - In Statem Region - - - - - - <t< td=""><td>H H AAL TOTALS</td><td>1 1 4.00</td><td>I</td><td>:</td><td>I</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>ł</td><td></td></t<>	H H AAL TOTALS	1 1 4.00	I	:	I	1	1	1	1	1	ł	
ch	h AAL TOTALS	4.00	ł	ł	ł	ł	1	ļ	}			
ch MAL TOTALS <u>- 4.00 8.00 </u>	tch ONAL TOTALS	4.00	ſ	5	1	I	ł	I	1	1	1	
th - 4.00 -	AL TOTALS	4.00	I	1	ł	ł	:	:	ł	1	ł	
NAL TOTALS - 4.00 00	1	4.00	F	ł	1	ł	ł	I	I	ł	ł	
ern Region d ngton ngton astern Region tt sne MAL TOTALS astern Region n NOT APPLICABLE 15.00 MAL TOTALS astern Region n NOT APPLICABLE 15.00 MAL TOTALS astern Region n NOT APPLICABLE 15.00 MAL TOTALS astern Region n NOT APPLICABLE			ł	1	1	8.00		1		1	1	6.00
ngton ngton MAL TOTALS astern Region astern Region tt sne MAL TOTALS astern Region 15.00 astern Region n NOT APPLICABLE an NOT APPLICABLE an NOT APPLICABLE	outnern region Beaver Sarfield											
ngton MAL TOTALS MAL TOTALS astern Region tt sne NAL TOTALS MAL TOTALS MAL TOTALS astern Region NAL TOTALS MAL TOTALS astern Region NOT APPLICABLE MAL TOTALS and NOT APPLICABLE												
ngton MAL TOTALS MAL TOTALS astern Region tt sne MAL TOTALS MAL TOTALS astern Region NAL TOTALS AND TOTALS AND TOTALS AND TOTALS AND TOTALS	ane				VOT A	PDI ICA	ц Ц					
ngton MAL TOTALS astern Region tt sne tt sne tt sne 15.00 MAL TOTALS astern Region NAL TOTALS NOT APPLICABLE IAN TOTALS	lilard			-) 						
ngton MAL TOTALS astern Region tt sne MAL TOTALS MAL TOTALS astern Region n NOT APPLICABLE an ian	liute											
ngton MAL TOTALS astern Region astern Region MAL TOTALS astern Region NOT APPLICABLE MAL TOTALS an	evier											
MAL TOTALS astern Region tt sne MAL TOTALS astern Region NOT APPLICABLE an NAL TOTALS ANAL TOTALS	Vashinaton											
MAL TOTALS astern Region tt tsne sne MAL TOTALS astern Region NOT APPLICABLE INAL TOTALS and NOT APPLICABLE INAL TOTALS	Varne											
astern Region tt sne												
tt sne	lortheastern Region											
sne 15.00 MAL TOTALS 15.00 eastern Region NOT APPLICABLE an NAL TOTALS NAL TOTALS	Jaggett						I					
NAL TOTALS 15.00 Sastern Region NOT APPLICABLE an NAL TOTALS NAL TOTALS	Juchesne						I					
NAL TOTALS 15.00 Bastern Region NOT APPLICABLE IN NAL TOTALS	lintah						15 00					
astern Region NOT APPLICABLE Ian INAL TOTALS	REGIONAL TOTALS						15.00					15.00
NOT APPLICABLE Ian INAL TOTALS	ioutheastern Region											
ian NAL TOTALS	arbon											
ian NAL TOTALS	imery			-	VOT AF	PLICA	BLE					
ian NAL TOTALS	brand											
ALS	an Juan											
11.88 7.83 8.50 8.90 12.50 8.83 15.00 - 20.00 -	ALS 11.88	7.83	8.50		12.50		15.00	1	20.00	1	1	11.68

į

ļ,

È

Region and						Year	Year					Average
County	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
Northern Region												
Box Elder	561	438	1	529	327	96	ł	I	175	ł	1	
Cache	ł	ľ	88	538	I	257	ł	ł	ł	I	ł	
Davis	I	ł	ł	I	1	ł	ł	1	ł	1	ł	
Morgan	I	I	ł	ł	ł	ł	ł	1	I	1	ł	
Rich	1	ł	I	ł	ł	ł	I	ł	I	I	ł	
Summit	ł	I	ł	ł	ł	ł	I	ł	ł	1	I	
Weber	1	I	ł	ł	1	l	ł	ł	1	ł	I	
REGIONAL TOTALS	435	240	88	517	327	110	5	1	175	1	1	270
Central Region												
Juab	I	1	1	I	1	450	I	1	ł	ł	I	
Salt Lake	ł	ł	I	ł	ł	I	I	ł	1	ł	ł	
Sanpete	1	1	ł	ł	ł	ł	ł	ł	ł	I	ł	
Tooele	1	ł	ł	ł	1	ł	1	ł	1	I	ł	
Utah	1	I	ł	1	1	1	1	ł	ł	ł	ł	
Wasatch	ł	500	ł	1	ł	ł	ł	ł	ł	1	1	
REGIONAL TOTALS	1	500	1	1	1	450	1	I	1	1	1	475
southern region Beaver												
uarrieiu Iron												
Kane Kane					NOT A	NOT APPLICABLE	ABLE					
Milard												
Plute							·					
Sevier												
Washington												
Wayne												
REGIONAL TOTALS												
Northeastern Region												
Daggett							1					
Duchesne							ł					
Uintah							8,500					
REGIONAL TOTALS							8,500					8,500
Southeastern Region												
Carbon												
Emery					NOTA	NOT APPLICABLE	ABLE					
Grand San Juan												
REGIONAL TOTALS												
0111110	1											

Table 5.	Summary of Hungarian partridge hunter success and distribution of harvest
	and hunting pressure by region and county, 1997.

REGION AND	SAMPLE	HUNTER-DAYS	BIRDS	BIRDS PER	\$ OF	S OF
COUNTY		AFTELD		HUNTER-DAY		HARVEST
NODITION PROTOT						
NORTHERN REGION						
BOX ELDER CACHE	71	3,990	3,429	0.86	61.94	67.63
	29	1,933	1,226	0.63	30.00	24.18
DAVIS	1	20	0	0.00	0.32	0.00
MORGAN	5	228	124	0.55	3.55	2.46
RICH	1	20	0	0.00	0.32	0.00
SUMMIT	0	0	0	0.00	0.00	0.00
WEBER	1	20	0	0.00	0.32	0.00
REGIONAL TOTALS	108	6,214	4,780	0.77	96.46	94.27
CENTRAL REGION						
JUAB	1	20	0	0.00	0.32	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	103	103	1.00	1.61	2.05
UTAH	2	20	83	4.00	0.32	1.64
WASATCH	0	0	0	0.00	0.00	0.00
REGIONAL TOTALS	7	145	187	1.29	2.26	3.69
SOUTHERN REGION						
BEAVER	0	0	0	0.00	0.00	0.00
GARFIELD	0	0	0	0.00	0.00	0.00
IRON	1	20	20	1.00	0.32	0.41
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	20	20	1.00	0.32	0.41
NORTHEASTERN REGION						
DAGGETT	0	0	0	0.00	0.00	0.00
DUCHESNE	1	41	41	1.00	0.65	0.82
UINTAH	1	20	41	2.00	0.32	0.82
REGIONAL TOTALS	2	62	83	1.33	0.97	1.64
SOUTHEASTERN REGION						
CARBON	0	0	0	0.00	0.00	0.00
EMERY	0 0	Ő	0 0	0.00	0.00	0.00
GRAND	ő	ő	Ő	0.00	0.00	0.00
SAN JUAN	0 0	· O	0 0	0.00	0.00	0.00
REGIONAL TOTALS	ŏ	Ő	0 0	0.00	0.00	0.00
UNKNOWN	0	0	0	0.00	0.00	0.00
STATE TOTALS	118	б,443	5,071	0.79	100.00	100.00

* Total hunter-trips from questionnaire returns.

÷

Ī

Ì

Table 6. Summary of Hungarian partridge bagged per hunter-day by region and county, 1990-97.

Region and					Year			
County	1990	1901	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	1.11	1.02	1.00	0.24	0.47	1.26	0.99	0.86
Cache	0.86	0.86	1.07	0.56	0.80	0.95	1.15	0.63
Davis	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Morgan	0.00	0.00	0.04	0.57	0.00	0.00	2.00	0.55
Rich	2.13	1.35	0.76	0.53	0.80	0.00	0.00	0.00
Summit	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Weber	1.00	0.40	0.00	0.00	0.00	0.45	0.25	0.00
REGIONAL TOTALS	1.02	0.97	0.95	0.35	0.52	1.11	1.05	0.77
Central Region								
Juab	0.00*	0.00*	2.00	0.00	0.00	0.00	0.00	0.00
Salt Lake	0.00*	0.00*			0.00*	0.00*	0.00*	0.00
Sanpete	0.00*	0.00*			0.00*	1.25*		0.00
Tooele	0.46	0.02	0.25	0.50	1.50	0.00	0.00	.1.00
Utah	0.00*	0.00*			0.00*	0.00*	0.25*	4.00
Wasatch	0.00*	0.00*			0.00*	0.50*		 0.00
REGIONAL TOTALS	-0.40	0.02	0.40			0.40		1.29
Southern Region								
Beaver	0.00*	0.00*	2.00*	0.00*	0.00*	0.00*	0 70+	
Garfield	0.00*	0.00*			0.00*	0.00*	0.78*	0.00
Iron	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*	1.00
Millard	0.00*	0.00*			0.00*	0.00*		0.00
Piute	0.00*	0.00*			0.00*	0.00*	0.00*	0.00
Sevier	3.00*	0.00*			0.00*		0.00*	0.00
Washington	0.00*	0.00*			0.00*	0.00*	0.00*	0.00
Wasatch	0.00*	0.00*				0.00*	0.00*	0.00
REGIONAL TOTALS	0.00	0.00*	1.40	0.00	0.00*	0.00*	0.00* 0.78	0.00

Northeastern Regio								
Daggett	0.00*	1.25*			0.00*	0.00*	0.00*	0.00
Duchesne	0.00*	1.00*			0.00*	0.17*	0.00*	1.00
Uintah	0.00*	0.00*			0,00*	0.00*	0.00*	2.00
REGIONAL TOTALS	0.00	1.20	0.00	0.00	0,00	0.13	0.00	1.33
Southeastern Regi	on							
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*	0.17*	0.00*	0.00
Grand	0.00*	0.00*	0.00*		0.00*	0.00*	0.00*	0.00
San Juan	0.00*	0.00*	0.00*	0.00*	0.00*	6.00*	0.00*	0.00
REGIONAL TOTALS	0.00	0.00	0.00	2.00	0.00	1.00	0.00	0.00
Unknown counties	0.00	0.00	10.00	0.00	0.00	0.00	0.83	0.00
STATE TOTALS	0.97	0.88	0.92	0.37	0.50	1.03	1.01	0.79

*Closed Season

Table 7. Percentage distribution of Hungarian partridge harvest by region and county, 1990-97.

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	60 00	72 02	C1 41	22.24	FF 07	60 07	50.00	
	60.80	73.82	61.41	33.34	55.97	62.87	52.96	67.63
Cache Davis	31.01	16.75	30.59	37.51	33.95	29.97	39.88	24.18
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Morgan Rich	0.00 5.17	0.00 6.37	0.24 3.76	3.33 7.50	0.00 7.34	0.00	0.61	2.46
Summit	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Weber					0.00	0.98	0.00	0.00
with the second to a second three stands and the	0.30	1.42 98.35	0.00	0.00	0.00	1.63	0.31	0.00
REGIONAL TOTALS	97.28	1. 78. 30.	96.00	81.68	97.25	95.45	93.78	94.27
Central Region								
Juab	0.00*	0.00*	0.47	0.00	0.00	0.00	0.00	0.00
Salt Lake	0.00*	0.00*	0.24*	0.00	0.00*	0.00*	0.00*	0.00
Sanpete	0.00*	0.00*	0.00*	1.67	0.00*	1.63*	0.62*	0.00
Tooele	1.82	0.24	1.18	2.50	2.75	0.00	0.00	2.05
Utah	0.00*	0.00*	0.47*	3.33	0.00*	0.00*	0.31*	1.64
Wasatch	0.00*	0.00*	0.00*	0.00	0.00*	0.33*	0.00*	0.00
REGIONAL TOTALS	4.76	1.82	0.24	2.35	7.50	2.75	0.93	3.69
Southern Region								
Beaver	0.00*	0.00*	0.47*	0.00	0.00*	0.00*	2.18*	0.00
Garfield	0.00*	0.00*	0.00*	0.83	0.00*	0.00*	0.00*	0.00
Iron	0.00*	0.00*	0.00*	0.00	0.00*	0.00*	0.00*	0.41
Kane	0.00*	0.00*	0.00*	0.00	0.00*	0.00*	0.00*	0.00
Millard	0.00*	0.00*	0.00*	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	0.91*	0.00*	1.18*	0.00	0.00*	0.00*	0.00*	0.00
Washington	0.00*	0.00*	0.00*	0.00	0.00*	0.00*	0.00*	0.00
Wayne	0.00*	0.00*	0.00	0.00	0.00*	0.00*	0.00*	0.00
REGIONAL TOTALS	0.91	0.00*	1.65*	0.83	0.00	0.00	2.18	0.41
Northeastern Regi	on							
Daggett	0.00*	1.18*	0.00*	0.00	0.00*	0.00*	0.00*	0.00
Duchesne	0.00*	0.24*	0.00*	0.00	0.00*	0.33*	0.00*	0.82
Uintah	0.00*	0.00*	0.00*	0.00	0.00*	0.00*	0.00*	0.82
REGIONAL TOTALS	0.00	0.00*	0.00*	0.00	0.00	0.33	0.00	1.64
Southeastern Regi	on							
Carbon	0.00*	0.00*	0.00*	0.00	0.00*	0.00*	0.00*	0.00
Emery	0.00*	0.00*		1.67	0.00*	0.33*	0.00*	0.00
Grand	0.00*	0.00*		0.00	0.00*	0.00*	0.00*	0.00
San Juan	0.00*	0.00*		0.00	0.00*	1.95*	0.00*	0.00
REGIONAL TOTALS	1.59	0.00	1. A.	38.90% 137 ////	222.2.2.1.2.2.2.2.2.2.2.2.2.2.1.1.2	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.00	 March 1997 And State Total State Total
Unknown counties	0.00	0.00	0.00	8.33	0.00	0.00	3.12	0.00
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Closed Season

Table 8. Percentage distribution of Hungarian partridge hunting pressure by region and county, 1990-97.

Region and _					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	53.10	64.04	56.41	51.23	60.09	51,17	53.61	61.94
Cache	34.81	17.26	26.25	24.85	21.10	32.44	64.80	30.00
Davis	0.00	0.42	0.87	0.00	1.83	0.00	0.00	0.32
Morgan	2.36	0.42	5.21	2.15	1.83	0.00	0.31	3.55
Rich	2.36	4.16	4.56	5.22	4.59	0.00	0.00	0.32
Summit	0.00	0.00	0.00	0.92	0.92	1.00	0.00	0.00
Weber	0,30	3.12	0.00	2.15	2.29	3.68	1.25	0.32
REGIONAL TOTALS	92.93				92.67	88.30	89.97	and the second second
Central Region								
Juab	0.59*	0.00*	0.22	0.31	0.46	0.33	0.00	0.32
Salt Lake	0.00*	0.00*	0.22*	0.31*	0.00*	0.00*	0.00*	0.00
Sanpete	0.00*	0.00*	0.00*	0.61*	0.92*	1.34*	0.63*	0.00
Tooele	3.84	9.15*	4.34	1.84	0.92	0.67	0.00	1.61
Utah	0.00*	0.21*	0.65*	9.20*	0.46*	2.01*	1.25*	0.32
Wasatch	0.00*	0.00*	0.00*	0.00*	0.00*	0.67*	0.31*	0.02
REGIONAL TOTALS	4.43	9.36	5.42	12.27	2.75	5.02	2.19	2.26
Southern Region								
Beaver	1 10+	0 01+	0 00+	0 00+	0 1 C 1			
Garfield	1.18*	0.21*	0.22*	0.00*	0.46*	0.33*	2.82*	0.00
	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00
Iron	0.00*	0.00*	0.22*	0.00*	0.00*	0.00*	0.00*	0.32
Kane Millard	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00
Piute	0.00*	0.00*	0.00*	0.61*	0.00*	0.00*	0.31*	0.00
	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00
Sevier	0.30*	0.00*	0.65*	0.00*	0.46*	0.00*	0.00*	0.00
Washington	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0_00
Wayne	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00
REGIONAL TOTALS	1.48	0.21	1.08	0.61	0,92	0.33	3.13	0.32
Northeastern Regi								
Daggett	0.00*	0.83*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00
Duchesne	0.00*	0.21*	0.00*	0.00*	1.38*	2.01*	0.94*	0.65
Uintah	0.00*	0.00*	0.22*	0.00*	1.46*	0.67*	0.00*	0.32
REGIONAL TOTALS	0.00*	1.04	0.22	0.00	1.83*	2.68*	0.94	0.97
Southeastern Reg	ion							
Carbon	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00
Emery	1.18*	0.00*	0.00*	0.00*	1.83*	2.01*	0.00*	0.00
Grand	0.00*	0.00*	0.00*	0.31*	0.00*	0.00*	0.00*	0.00
San Juan	0.00	0.00*	0.00*	0.00*	0.00*	0.33*	0.00*	0.00
REGIONAL TOTALS	1.18	0.00	0.00	0.31	1.83	2.34	0.00	0.00
Unknown counties	0.00	0.00	0.00	0.31	0.00	1.34	3.76	0.00
STATE TOTALS	100.00	100.00 1	.00.00 1	.00.00 1	L00.00	100.00	100.00 1	.00.00

*Closed Season

· ·· · · · · -

	Total	Total			
Year	Hunters	Harvest	Hunter-Days Afield	Huns Per Hunter-Day	
955				~~	0.39
956			-		0.89
957			-	-	0.45
958	_			-	1.34
959	1,846	1,820	3,354	0.54	0.99
960	2,847	4,877	4,929	0.99	1.71
961	3,205	3,648	6,645	0.54	1.13
962	3,440	8,970	9,153	0.98	2.61
963	4,676	13,343	13,291	1.00	2.85
964	4,249	11,812	9,688	1.22	2.78
965	4,498	12,183	11,7 9 8	1.03	2.71
966	4,549	15,348	11,473	1.34	3.37
967	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
76	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
987	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
909 990	2,305	5,920 6,770	6,976	0.97	2.94
991	2,305 2,662	7,376	8,367	0.88	2.54 2.77
992	2,662 3,198	7,553	8,192	0.92	2.36
992 993			6,192 6,194	0.32	2.36 1.09
	2,090	2,280 1,916			
994	1,899		3,832	0.50	1.01
995	2,294	5,967	5,812	1.03	2.60
996	2,299	7,455	7,409	1.01	3.24
997	2,328	5,071	6,443	0.79	2.18
otals	404 057	000 400	***		
959-97)	131,657	283,160	330,290		
verages		7 640	0 500	0.04	2 00
959-96)	3,403	7,318	8,522	0.81	2.06

ì

日常調査ない

Table 9. Statewide summary of Hungarian partridge harvest statistics. 1955-97,

.

148

ł

Ì

I

ľ

ļ

ļ

U

◀

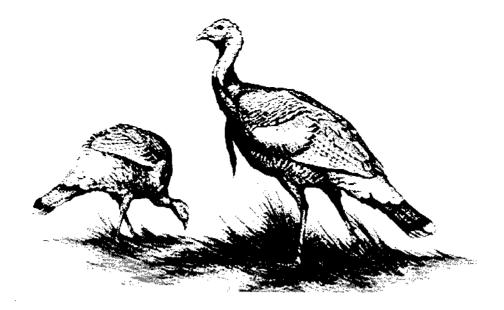
ļ

			All Hunts				U I	Complete Hunts	ts		
Region and	Total	Total	Total	Total	Birds/	Complete	Total	Total		Birds/	Birds/
County	Parties	Hunters	Hours	Birds	100 Hr	Hunts	Hunters	Hours	Birds	Hunter	100 Hr
Northern Region											
Box Elder	I	I	ł	ł	i 1	1	I	1	I	ł	ł
Cache	I	I	ł	I	1	1	I	I	1	ł	1
Davis	ł	ł	l	ł	1	1	ł	I	ł	3	1
Morgan	ł	ł	ł	ł	1	1	I	ł	ł	I	1
Rich	I	ł	ł	ł	1	1	ł	ł	I	ł	ł
Summit	I	1	ł	ł	i \$	1	I	I	ł	1	1
Weber	ł	1	ł	ł	1	ł	I	ł	ł	1	ł
REGIONAL TOTALS	1	1	1	1		1	I	1	1	1	1
Central Region	I	I	1	1	1	ł	1	1		1	1
Juab	ł	ł	ł	ł	1	ł	1	ł	I	I	ł
Salt Lake	ł	ł	ł	I	1	1	ł	ł	ł	ł	ł
Sanpete	1	1	ł	1	1	1	ł	ł	I	ł	ł
Tooele	ł	ł	ł	ł	1	ł	I	1	1	ł	ł
Utah	ł	1	ł	ł	1	I	I	I	ł	1	ł
Wasatch	ł	1	I	ł	1	ł	ł	ł	I	1	ł
REGIONAL TOTALS	ł	1	1	1	ĺ		I	ľ	1	1	1
Southern Region Beaver Garfield											
Iron						NOT APPLICABLE	ABLE				
Kane Millard											
Piute											
Sevier											
Washington											
Wayne											
REGIONAL TOTALS								•			
Northeastern Region Daggett											
Duchesne Uintah						NOT APPLICABLE	ABLE				
REGIONAL TOTALS								:			
Southeastern Region											
Carbon											
Errery Grand San Juan							ABLE				
REGIONAL TOTALS											
STATE TOTALS	1	1	1	1	1	1	1	1	1	1	1

Image: Control Image: Contro Image: Contro Image: Contro </th <th>Notify Numer Norm Numer Norm Numer Norm Numer in Region 1.50 50 </th> <th>Notify Notifier <</th> <th>Region and Birds/ Birds/ Birds/ Birds/ Birds/ Birds/ Birds/ Birds/ County County 400 United /th> <th>Birds/</th> <th>Birds/</th> <th>Birds/</th> <th>Birds/</th> <th>Birds/</th> <th>Birds/</th> <th>Birds/</th> <th>Birds/</th> <th>3</th> <th></th> <th>Birds/</th>	Notify Numer Norm Numer Norm Numer Norm Numer in Region 1.50 50	Notify Notifier <	Region and Birds/ Birds/ Birds/ Birds/ Birds/ Birds/ Birds/ Birds/ County County 400 United	Birds/	Birds/	3		Birds/						
ier 1.50 50 ML	ier 1.50 50 ML TOTALS 0.69 69 ML TOTALS	International 1.50 50 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 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <	county lorthern Region	HUNTER	H M	HUNTEL	100 HL	HUNTER		Hunter	100 1		HUNTER	HUNTER 100 HI
		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 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <td>Box Elder</td> <td>1.50</td> <td>50</td> <td>ł</td> <td>ł</td> <td>ł</td> <td>ł</td> <td>ł</td> <td>I</td> <td></td> <td>ł</td> <td>1</td>	Box Elder	1.50	50	ł	ł	ł	ł	ł	I		ł	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 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>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 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>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 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>Cache</td><td>ł</td><td>ł</td><td>ł</td><td>I</td><td>ł</td><td>ł</td><td>ł</td><td>ł</td><td></td><td>ł</td><td>ł</td></td>	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 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 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>Cache</td> <td>ł</td> <td>ł</td> <td>ł</td> <td>I</td> <td>ł</td> <td>ł</td> <td>ł</td> <td>ł</td> <td></td> <td>ł</td> <td>ł</td>	Cache	ł	ł	ł	I	ł	ł	ł	ł		ł	ł
1 0.55 86 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 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Image: Constraint of the state of the st	Davis	ł	1	ł	I	I	ł	1	I		ł	1
0.55 86 - - - - - - - MAL TOTALS - - - - - - - - MAL TOTALS - - - - - - - - - Region - - - - - - - - - Region - - - - - - - - - Region - - - - - - - - - Region - - - - - - - - - ML TOTALS - - - - - - - - ML TOTALS - - - - - - - ML TOTALS - - - - - - - ML TOTALS - - - - - - - ML TOTALS - - - - - - - ML TOTALS - - - - - - - <t< td=""><td>0.55 86 -</td><td>0.55 86 -<td>Morgan</td><td>ł</td><td>1</td><td>ł</td><td>ł</td><td>ł</td><td>1</td><td>1</td><td>ł</td><td>•</td><td>ł</td><td>1</td></td></t<>	0.55 86 -	0.55 86 - <td>Morgan</td> <td>ł</td> <td>1</td> <td>ł</td> <td>ł</td> <td>ł</td> <td>1</td> <td>1</td> <td>ł</td> <td>•</td> <td>ł</td> <td>1</td>	Morgan	ł	1	ł	ł	ł	1	1	ł	•	ł	1
Nature Nature <td>Natrotals </td> <td>Natronals </td> <td>Rich</td> <td>0.55</td> <td>86</td> <td>ł</td> <td>1</td> <td>ł</td> <td>ł</td> <td>ł</td> <td>ł</td> <td>ł</td> <td>-</td> <td>1</td>	Natrotals	Natronals	Rich	0.55	86	ł	1	ł	ł	ł	ł	ł	-	1
val TOTALS color	ML TOTALS Colored by to the transmission Region Colored by to the transmission Region Colored by to the transmission Region Colored by to the transmission Colored by to the transmission Colored by to the transmission M Colored by to the transmission Colored by the transmission Colored by the transmission	ML TOTALS 0.69 69 Region Region Region N N N N N N N N N N N I <	Summit	ł	ł	I	I	ł	ł	I	1	I		I
VAL TOTALS 0.69 69 - - - - - Region - - - - - - - - Region - - - - - - - - - Region - - - - - - - - - Region - - - - - - - - - Re - - - - - - - - - NaL - - - - - - - - - NaL - - - - - - - - - NaL - - - - - - - - - NaL - - - - - - - - - In - - - - - - - - In Not APPLICABLE - - - - - - In - - - - -	VAL TOTALS 0.69 69 Region Region Region Region Region M M M M M M M I M I	MAL TOTALS 0.69 69	Weber	I	1	1	1	1	1	ł	1	I		1
Region Region Not Alt TotALS In Region n Region	Region	Region	EGIONAL TOTALS	0.69	69	1	ł	1	1	I	ł	1		1
Re 1 1 1 1 1 Re 1 1 1 1 1 1 N 1 1 1 1 1 1 N 1 1 1 1 1 1 N 1 1 1 1 1 1 N 1 1 1 1 1 1 N 1 1 1 1 1 1 I 1 1 1 1 1 1 I 1 1 1 1 1 1 I 1 1 1 1 1 1 I 1 1 1 1 1 1 I 1 1 1 1 1 1 I 1 1 1 1 1 1 I 1 1 1 1 1 1 I 1 1 1 1 1 1 I 1 1 1 1 1 1 I 1 1 1 1 1 I 1<	(e 1 1 1 1 1 (e 1 1 1 1 1 1 (a 1 1 1 1 1 1 (a 1 1 1 1 1 1 (b) 1 1 1 1 1 1 (b) 1 1 1 1 1 1 (c) 1 1 1 1 1	(e e h h n Not appLicable if if if if if if if if if if <	Central Region			ł	ł	ł	ł	ł	1	ł		ł
ce <t< td=""><td>ce n n n n Not APPLICABLE n M n Not APPLICABLE n n Not APPLICABLE n n n </td><td>ce -</td><td>Juab</td><td>ł</td><td>ł</td><td>1</td><td>1</td><td>1</td><td>ł</td><td>ł</td><td>ł</td><td>ł</td><td></td><td>I</td></t<>	ce n n n n Not APPLICABLE n M n Not APPLICABLE n n Not APPLICABLE n n n	ce -	Juab	ł	ł	1	1	1	ł	ł	ł	ł		I
B <	e	e -	Salt Lake	ł	ł	ł	1	ł	:	ł	ł	1		I
h r	h NaL TOTALS <u></u>	h Val TOTALS	Sanpete	ł	ł	ł	1	ł	1	ł	ł	ł		ł
h r r r r r VAL TOTALS r r r r r MAL TOTALS r r r r r I NOT APPLICABLE NOT APPLICABLE r r I VAL TOTALS NOT APPLICABLE r r It NOT APPLICABLE NOT APPLICABLE r	h VAL TOTALS rn Region I NOT APPLICABLE NOT APPLICABLE I VAL TOTALS I VAL TOTALS NOT APPLICABLE Istern Region I NOT APPLICABLE Istern Region Istern Region	h - - - - - - VAL TOTALS - - - - - - MAL TOTALS - - - - - - In Region - - - - - - - In Region - - - - - - - - In Region - - - - - - - - - In LOTALS - - - - - - - - - VAL TOTALS - - - - - - - - -	ooele	ł	ł	1	1	1	1	ł	ł	ł		ł
h	h all TOTALS <u> </u>	h	Utah	ł	1	I	1	1	1	ł	ł	1		1
VAL TOTALS	VAL TOTALS	VAL TOTALS	lasatch	1	1	ł	ł	i	ł	1	ł	I		I
rn Region I NOT APPLICABLE I NOT APPLICABLE I NOT APPLICABLE I NOT APPLICABLE	rn Region I NOT APPLICABLE I NOT APPLICABLE VAL TOTALS Istern Region t NOT APPLICABLE	rn Region I NOT APPLICABLE Igton VAL TOTALS Istern Region t ine NOT APPLICABLE VAL TOTALS	EGIONAL TOTALS		1	1	1			1	1	1		I
gton VAL TOTALS sstern Region t	gton VAL TOTALS astern Region t	gton val TOTALS stern Region t ine val TOTALS	outhern Region											
gton VAL TOTALS stern Region t	gton VAL TOTALS stern Region t	gton vat TOTALS stern Region t ine vat TOTALS	Beaver											
gton VAL TOTALS stern Region t	gton VAL TOTALS stern Region t	gton VAL TOTALS stern Region ine VAL TOTALS	Garfield											
gfon VAL TOTALS astern Region t	gfon VAL TOTALS astern Region t	gfon VAL TOTALS sstern Region ine VAL TOTALS	Iron						NOT AP	PLICABL	Щ			
gton VAL TOTALS astern Region t	gton VAL TOTALS astern Region t	gton VAL TOTALS astern Region t ine VAL TOTALS	ane											
r ington e DNAL TOTALS eastern Region et essne	r ington e DNAL TOTALS eastern Region et essne	r ington e DNAL TOTALS eastern Region et essne n DNAL TOTALS	lillard											
			lute											
			evier fachinaton											
			ayne Colonal Total e											
			EGIUNAL IUIALS											
ste														
sne			aggett								1			
	intah	intah EGIONAL TOTALS	uchesne						NOT AP	PLICABL	щ			
EGIONAL TOTALS outheastern Region	outheastern Region		arbon											
EGIONAL TOTALS outheastern Region arthon	Southeastern Region Carhon	arhon							NOT AP	PI ICARI	ĽĽ			
NAL TOTALS astern Region	astern Region I										ł			
EGIONAL TOTALS outheastern Region arbon mery NOT APPLICABLE	astern Region I													
NAL TOTALS astern Region	astern Region I		an Juan											
NAL TOTALS astern Region an	astern Region - an		EGIONAL TOTALS											
NAL TOTALS astern Region a an AAL TOTALS	astern Region I an NAL TOTALS	an NAL TOTALS	STATE TOTALS	1	I	ł	1	;	ł	ł	I	ł		F

Brood Counts

Limited brood count data for 1997 is shown in Table 7.



In 1994, the entire state went to limited entry turkey hunting for both the Merriam's and Rio Grande sub-species. Drawing odds for each of the 1997 hunts is shown in Table 6.

Merriam's Turkeys

Merriam's turkey populations remain stable. Limited entry hunting was allowed on 4 units, during a total of 6 seasons. Two units were open for early and late seasons. A total of 362 permits were sold. A fall turkey hunting season was not held in Utah in 1997. A total of 81 Merriam's turkeys were harvested in 1997. Merriam's turkey hunters experienced a 24 percent success rate.

Rio Grande Turkeys

Two hundred forty permits were sold in 1997. A total of 127 Rio Grande turkeys were harvested in 1997 for a success rate of 55 percent.

Conservation Permits

Beginning in 1997, Sealed-bid and Auction Turkey Permits were replaced by Conservation Permits. Under the new Conservation Permits Rule (R657-41), wildlife conservation organizations obtain permits, authorized by the Utah Wildlife Board, and use them in fundraising activities to generate management funds for each species. Qualified wildlife conservation organizations typically keep 10 percent of funds generated for marketing, etc. Organizations, in some cases, can keep more than 10 percent of funds generated from permits if they propose habitat or management projects to benefit the species.

In 1997, the statewide turkey conservation permit was issued to the Utah Chapter National Wild Turkey Federation. The statewide turkey conservation permit allows the holder to hunt over an extended season (from the first date that any Utah turkey unit opens through the last date that any Utah turkey unit closes) on any open turkey unit in the state. In 1997, the statewide turkey conservation permit sold for \$1,000.00.

In 1997, seven area turkey conservation permits were issued to the Utah Chapter National Wild Turkey Federation. An area turkey conservation permit allows the holder to hunt over an extended season on one or a combination of open turkey units. In 1997, the seven area turkey conservation permits generated \$3,805.00.

Total turkey conservation permits funds generated in 1997 was \$4,805.00.

Harvest

Spring Merriam's Gobbler Season

Results of the 1997 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. Statewide summary of fall hunt statistics is in Table 3. The 1997 spring season survey compared to 1996 and the previous 28-year average follow:

		Percent change from	Percent change from
	<u>1997</u>	<u>1996</u>	Average
Permits sold	362	+2	+32
Hunters afield	339	+6	+37
Turkeys harvested	81	-4	+141
Hunter-days afield	1,208	+5	+57
Percent hunter success	24	-8	+96
Turkeys bagged per hunter-day	0.07	0	+58
Percent of hunters who observed	1		
turkeys	87	+12	+108

Beginning in 1994, a limited entry turkey hunting program was implemented in Utah. Total harvest decreased from 84 in 1996 to 81 in 1997. Hunter success rates decreased 24 percent from 1996 but were 141 percent above the long-term average.

Spring Rio Grande Gobbler Season

Results of the 1997 spring season are shown in Table 4 of this section. The trend of these data since 1991 is shown in Table 5 and Figures 3 and 4. The 1997 spring season compared to 1996 and the previous 6-year average follows:

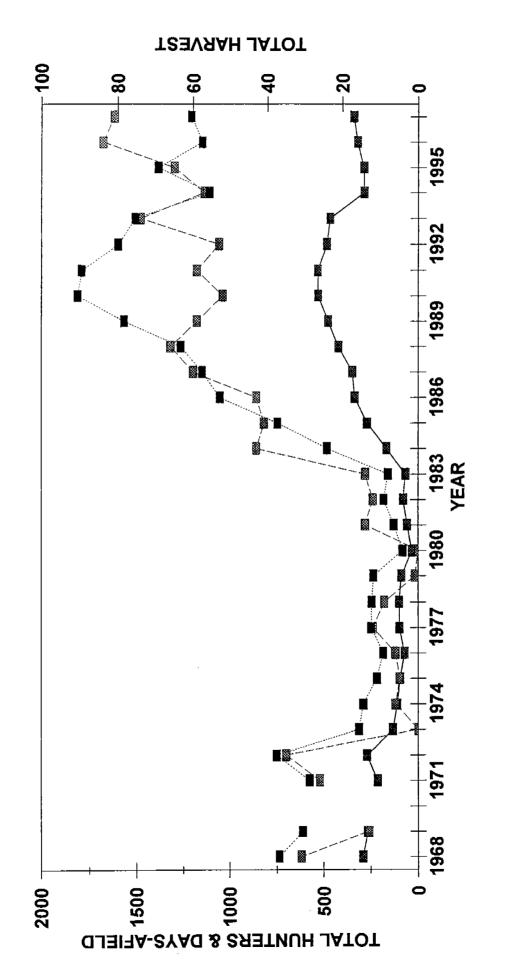
	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Permits sold	240	+38	+190
Hunters afield	229	+38	+190
Turkeys harvested	127	+19	+141
Hunter-days afield	920	+19	+151
Percent hunter success	55	-14	-18
Turkeys bagged per hunter-day	0.14	0	-11
Percent of hunters who observed			
turkeys	82	-7	

Two hundred twenty nine hunters averaged 4.02 days-afield each to harvest a total of 127 turkeys. Fifty-five percent of the hunters afield harvested a bird.

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

Turkey permit drawing odds for 1997 are found in Table 6.





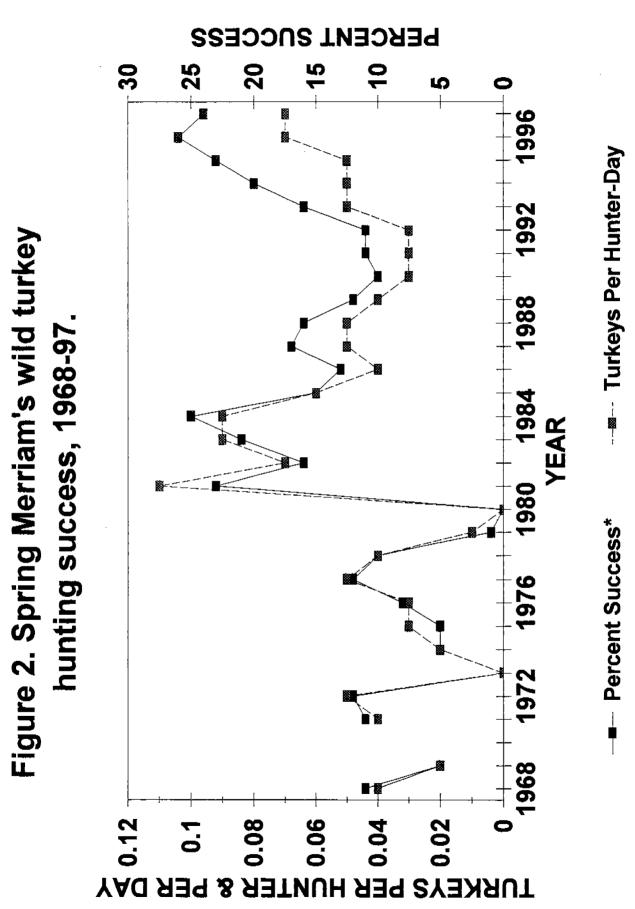


Table 1. Summary of the 1997 spring Merriam's turkey season.

	Boulder (early)	Boulder (late)	Unit Totals	Kolob L	LaSal (early)	LaSal (late\)	Unit Totals	Zion (early)) Zlon (late)	Unit Totals	STATE TOTALS
Hunt Number	201a	201b		8	203a	203b		204a	7		
Permits Sold	74	75	149	35	15	15	30	74	75	149	363
No Hunts	4	4	æ	0	ы	Ċ	ę	~	ŝ	12	23
Hunters Afteld	20	70	140	35	12	15	27	67	70	137	339
Total Hunter-Days	229	290	519	154	38	40	78	205	252	457	1,208
Average Hunter-Days Afield	3.3	4.1	7	4.4	3.2	2.7	9	3.1	3.6	~	9
Turkeys Bagged	22	7	24	14	ŝ	ŝ	1	22	1	33	5
Percent Success	ы Т	n	17	40	42	33	37	33	16	24	24
Turkeys Bagged Per											i
Hunter-Day	0.10	0.01	0.05	0.09	0.13	0.13	0.13	0.11	0.04	0.07	0.07
Reported Crippling Loss	0	¢	0	2	0	0	0	4	0	4	g
(Loss/100 Bagged)	0	0	0	14	ò	0	0	18	0	12	-
Turkeys Observed											
Gobblers	06	80	120	89	15	22	37	126	127	253	499
Hens	347	106	453	214	48	90	78	242	130	372	1.117
Unidentified	51	25	76	128	•	₽ 1	10	93	23	116	330
Number of Hunters											
Who Saw Turkeys	70	20	140	30	12	†	22	57	45	102	294
Percent of Hunters											
Who Saw Turkeys	100.00	100.00	100.00	85.00	100.00	72.70	86.35	86.10	64.10	75.10	86,61
Percent of Hunters											
Who Saw Gobblers	82,00	39.40	60.70	85.00	85.70	54.50	70.10	77.80	46.20	62.00	69.45
Beard Length 0"-<4" (% of Harvest)	33,33	00'0	16,67	12.50	0.00	0.00	0.00	18.18	20.00	19.09	12.06
Beard Length 4"-7" (% of Harvest)	8.33	100.00	54.17	12.50	0.00	25.00	12.50	18.18	0,00	6 0,6	22.06
Beard Length >7" (% of Harvest)	58.33	0.00	29.17	75.00	100.00	75.00	87.50	63.64	80.00	71.82	65.87
Blunt Spur (% of Harvest)	58.33	0.00	29.17	12.50	0.00	0,00	0.00	41.67	0.00	20,84	15,63
Rounded Spur (% of Harvest)	33.33	100.00	66,67	62.50	33.33	75.00	54.17	33.33	83.33	58.33	60.42
Sharp Spur (% of Harvest)	8.33	0.00	4.17	25.00	66.67	25,00	45.84	25.00	16.67	20.84	23,96

. _ _

K

ł

ľ

Í

		ŝ	Total Harvest	Hunter-Days	Percent Success*	Harvest Hunter-Days Percent Success* Turkeys Per Hunter-Day		Total
	Year	Arieid		Arield			Ubserving Lurkeys	Permits
STATE TOTALS	1968	290	3	738	1	0.04	41	310
	1969	267	13	612	<u>م</u>	0.02	22	276
	1970				NO SEASON			
	1971	215	26	576	4	0.04	38	223
	1972	269	35	751	12	0.05	39	285
	1973	135	0	311	0	0.00	9	150
	1974	112	9	289	ŝ	0.02	22	121
	1975	97	ŝ	219	J.	0.03	29	103
	1976	74	9	185	ø	0.03	32	81
	1977	66	12	248	12	0.05	39 3	108
	1978	101	6	246	6	0.04	42	116
	1979	06	-	237	-	0.01	æ	113
	1980	35	0	84	0	0.00	17	4
	1981	60	14	129	23	0.11	53	83
	1982	80	12	184	16	0.07	62	91
	1983	69	14	161	21	0.09	55	92
	1984	169	43	482	25	0.09	72	190
	1985	270	4	747	15	0.06	52	314
	1986	335	43	1,054	13	0.04	57	362
	1987	347	60	1,150	17	0.05	57	384
	1988	421	<u>66</u>	1,267	16	0.05	50	490
	1989	477	59	1,568	12	0.04	55	527
	1990	531	52	1,812	9	0.03	51	579
	1991	532	59	1,792	11	0.03	49	587
	1992	484	53	1,599	11	0.03	45	538
	1993	466	74	1,508	16	0.05	2	200
	1994***	285	57	1,112	20	0.05	I	335
	1995	287	65	1,386	23	0.05	4	335
	1996	320	84	1,151	26	0.07	78	355
	1997	339	81	1,208	24	0.07	87	362
STATE TOTALS								
(1968-97)		7,256	1,021	22,806				8,050
STATE AVERAGES								

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

**Total permits are sold on a statewide basis and not by unit, 1968-93. In 1994, permits were sold by unit.

***Beginning in 1994, a limited entry turkey hunting program was initiated.

	Permits	HUNTERS	Hunter-Days	Turkeys	Percent	Turkeys per	Crippling Loss/	Turkeys	Percent of Hunters
Year	Sold	Afield	Afield	Bagged	Success**	Hunter-Day	100 Bagged	Observed	Observing Turkeys
1964	229	211	362	81	38	0.22	15	1.158	60
1965	214	207	406	50	24	0.12	¢	730	29
-366 [×]	192	187	471	43	23	0.09	7	756	36
967	146	135	405	40	30	0.10	16	748	48
968*	368	344	883	183	38	0.21	15	2,321	54
969	223	210	549	36	7	0.06	19	466	17
970	197	174	418	58	24	0.14	9	564	31
971	184	174	444	60	21	0.14	80	451	28
972	124	118	303	12	7	0.04	9	173	21
973***	:	ł	1	;	ł	ł	ł	1	; ;
974	29	26	79	ę	12	0.04	33	83	38
1975	58	46	115	7	15	0.06	0	57	26
1976	68	56	136	15	27	0.11	-	182	32
577	60	53	133	~	15	0.06	0	48	-
1978*	102	88	223	~	σ	0.03	33	335	38
1979	46	36	71	ę	6	0.05	0	61	19
1980	43	35	69	1	32	0.16	38	127	44
1981	63	55	114	12	22	0.11	56	141	32
1982	56	50	136	÷	23	0.08	1 0	185	47
1983	61	49	112	15	28	0.13	0	303	49
984	97	86	193	28	32	0.14	14	380	49
1985***	ł	1	1	:	;	1	ł	ł	:
+++986	;	ł	1	:	I	I	1	ł	:
387 ***	1	1	1	1	ł	1	:	1	ł
988***	ł	;	ł	:	ł	:	;	:	ł
989***	ł	:	1	1	ł	ł	:	i	1
1990***	ł	ł	1	1	I	ł	:	;	:
1991***	1	;	1	1	1	1	I	;	:
1992***	ł	ł	ł	1	ł	ł	ł	ł	1
1993***	ł	ł	ł	ł	1	:	;	I	:
894***	ł	;	I	ł	:	ł	;	}	ł
1995***	ł	1	:	:	;	1	ł	1	ł
1996***	: :	11	::	: :	: :	1	; ;	;	ł
TOTALS									
(1964-84)	2,560	2,340	5,622	682	1	:	ł	9,269	:
AVERAGES (1964-84)	122	111	268	32	21	0.10	14	441	7
								F	L 0

**During 1968, the Boulder Mountain and East Zlon units had two-bird season limits and the LaSal 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.

*** No fall season.

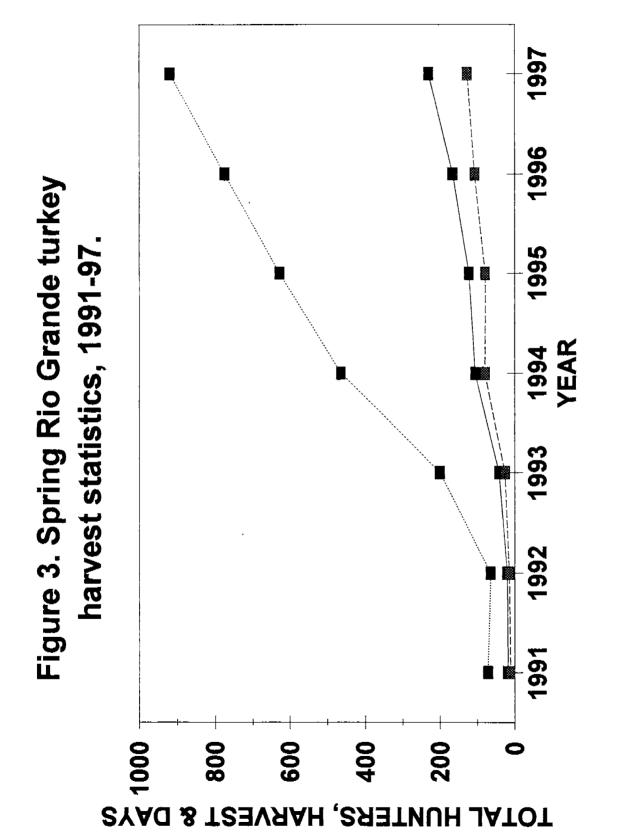
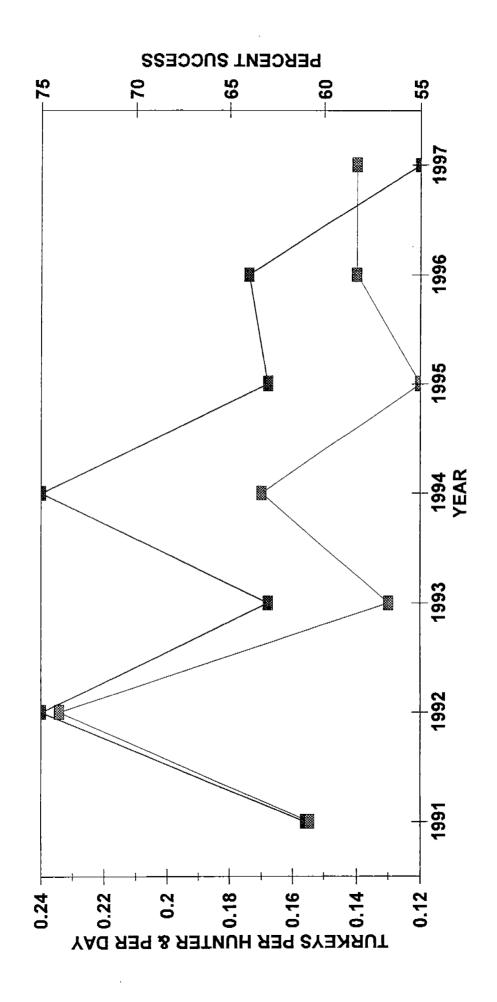




Figure 4. Spring Rio Grande turkey hunting success, 1991-97.



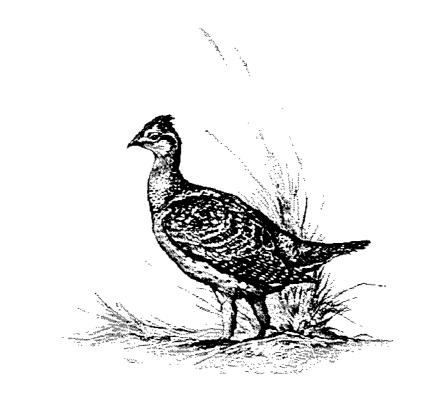
		Unit	Duchesne	Duchesne	L L L L	West Emery	Filmore	Colorado River	Colorado River	Cait	Green	Milford*	Monroe
	(late)	Totals C	County (early)	County (late)	Totals	County		(early)	(late)	Totals	River		Mountain
<u></u>	101b		102a	1025		103	104	105a	105b		106	107	108
	24	48	æ		16	ъ	9	ю	Q	6	ъ		\$
			0	0	0	0		0	Ċ	0	0		
	23	46	æ	8	16	ю	10	5	Q	10	ю		9
Hunter-Days 80.5	94.3	174.8	37	30	67	10	21	19	15	34	26		თ
Turkeys Bagged 11	~	18	7	e 1	9		10	÷	ю	4	ŝ		. 67
Percent Success 48	30	39	88	38	63	60	100	20	60	40	100		60
Turkeys Bagged Per								1	1				ł
Hunter-Day 0.14	0.07	0.11	0.19	0.10	0.14	0.30	0,48	0.05	0.20	0.13	0.19		0.33
Reported Crippfing Loss	0	0	•	0	0	0	0	0	0	ð	0		0
(Loss/100 Bagged) 0	0	0	0	0	0	0	0	0	0	0	0		0
Turkeys Observed					:		-						
Gobblers 89	31	120	24	29	53	e	56	69	40	109	39		4
Hens 189	65	254	08	27	107	10	132	123	63	186	61		;
Unidentified	:		on	0		0	:	e 2	0		45		:
Percent of Hunters											•		
Who Saw Turkeys 91.00	85.00	88.00	83.30	100.00	91.65	50,00	100.00	100.00	100.00	100,00	100,00		80.00
Percent of Hunters													
	79.00	82.50	83.30	100.00	91.65	50.00	100.00	100.00	100.00	100.00	100.00		60.00
Beard Length 0"-<4" (% of Harvest) 0.00	33.00	16.50	20.00	50.00	35,00	0.00	12.00	0.00	0.00	0.00	00.0		00.0
Beard Length 4"-7" (% of Harvest) 18.00	0.00	9.00	40.00	0.00	20.00	0.00	12.00	0.00	100.00	50.00	25.00		0.00
Beard Length >7" (% of Harvest) 81.00	67.00	74.00	40.00	50.00	45,00	100.00	75.00	100.00	0.00	50.00	75.00		100.00
Blunt Spur (% of Harvest) 0.00	26.00	12.50	0.00	0.00	0.00	0.00	12.00	0.00	0.00	0.00	0.00		0.00
Rounded Spur (% of Harvest) 36.00	26,00	30.50	20.00	50,00	35.00	0.00	12.00	0.00	100,00	50.00	40,00		0.00
Sharp Spur (% of Harvest) 63,00	50.00	56.50	80.00	50,00	65,00	100.00	75.00	100.00	0.00	50,00	60.00		100,00

Hunt Number Permits Sold No Hunts	San Juan S	San Juan		Uintah County U	County Uintah County	Unit	No. Utah	No. Utah	Unit	So. Utah	Wasatch	West Pine	STATE
	(early)	(late)	Totals	(early)	(late)	Totals C	County (early) County (late)	County (late)	Totals	County	County	Vallev	TOTALS
Permits Sold No Hunts	112a	112b		113a	113b		114a	114b		115	116	117	
No Hunts	10	10	50	ŝ	S	₽	15	15	30	60	S	ю	240
	÷	0	÷	0	¢	0						I	<i>с</i>
Hunters Afield	đh	10	19	ų	ŝ	₽	13	15	28	7	ß	ŝ	229
Hunter-Days	29	32	61	26	13	39	54,6	90.6	145.2	30.8	20	24	920
Turkeys Bagged	đ	8	17	4	ę	7	7	7	44	9	en en	N	127
Percent Success	100	80	6 8	80	60	70	54	47	50	86	60	40	50
Turkeys Bagged Per													
Hunter-Day	0.31	0.25	0.28	0.15	0.23	0.19	0.13	0.08	0.10	0.19	0.15	0.08	0.14
Reported Crippling Loss	-	61	1.5	0	0	0	7	0	6	0	0	0	ω
(Loss/100 Bagged)	41	25	5	0	0	0	29	0	44	0	0	0	4
Furkeys Observed			: ; ;								•		
Gobbiers	23	99	6 8	33	23	56	61	39	50	2	50	6	979
Hens	63	9 6	161	52	42	121	209	145	177	120	109	20	2.013
Unidentified	54	20		13	33		72	29	51	52	đ	;	165
Percent of Hunters										l	I		
	100.00	80.00	90.00	100.00	66.70	83,35	62.00	93.00	77.50	100.00	100.00	80.00	81.53
Percent of Hunters													
Who Saw Gobblers	100.00	80.00	90.00	100.00		83.35	:	:	:	1	:	40.00	61.24
₽	0.00	0.00	0,00	33.33	0.00	16,67	28.67	16.67	22.62	16.67	0.00	0.00	9.79
Beard Length 4"-7" (% of Harvest)	16.67	33,33	25.00	0.00		0.00	42.86	33.33	38.10	00'0	33.33	0.00	15.08
Beard Length >7" (% of Harvest)	83.33	66.67	75.00	66.67		83.34	28.57	50.00	39.29	83.33	66,67	100.00	69.12
Blunt Spur (% of Harvest)	16.67	50,00	33.34	100.00		50.00	28.57	14.28	21.43	16.67	0,00	0.00	11.85
est)	33.33	50.00	41.67	0.00		0.00	57,14	28.57	42.86	33,33	33,33	0.00	28.22
Sharp Spur (% of Harvest) t	50.00	0,0	25.00	0.00		50.00	14.29	57.14	35.72	50.00	66.67	100.00	53.96

		Hunters	Total	Hunter-Days	Percent	Turkeys Per	Percent of Hunters	Total
Hunting Unit	Year	Afield	Harvest	Afield	Success	Hunter-Day	Observing Turkeys	Permits
STATE TOTALS	1991	18	11	71	61	0.15	1	20
	1992	20	15	64	75	0.23	:	21
	1993	41	26	200	63	0.13	:	42
	1994	105	79	464	75	0.17	:	105
	1995	123	78	628	63	0.12	1	135
	1996	166	107	776	64	0.14	88	174
	1997	229	127	920	55	0.14	81.53	240
STATE TOTALS				-				
(1991-97)		702	443	3,123	ł	ł	;	737
STATE AVERAGES								
(1991-96)		79	53	367	67	0.16	1	83

									UNDERSUBSCRIBED																				UNDERSUBSCRIBED	UNDERSUBSCRIBED	
SODS	9	ю	ო	m	÷.	6	en	9		ო	4	26	ស	2	4	en	9	2	13	თ	ę	12	2	m	2	-	с	-	+	-	4
TOTAL APPLICANTS	145	135	20	27	57	187	15	28	4	15	18	232	108	57	43	28	30	37	190	134	88	61	11	214	167	37	44	19	62	51	2,264
RESIDENT APPLICANTS NONRESIDENT APPLICANTS TOTAL APPLICANTS (ODDS	0	ſĊ	0	0	2	0	o	0	0	0	0	Ŧ	ę	n	4	0	0	0	0	0	0	1	0	o	7	1	0	0	0	10	32
RESIDENT APPLICANTS	145	130	20	27	55	187	15	28	4	15	18	231	105	54	- 39	28	30	37	190	134	88	09	11	214	165	96	44	19	62	41	2,232
drawing odds for 1997 PERMITS AVAILABLE	24	24	ø	œ	2 L	9	5	5	ß	5	Q	6	24	24	0		2	5	15	15	6	5	ъ	74	75	35	15	15	74	75	603
I entry hunting unit drawing	T101A	T101B	T102A	T102B	T103	T104	T105A	T105B	7106	T108	T109	T110	T111A	T111B	T112A		T113A	T113B	T114A	T114B	T115	T116	T117	T201A	T201B	T202	T203A	T203B	T204A	T204B	
Table 6. Summary of wild turkey limited entry hunting unit drawing odds for 1997 [HUNT NAME HUNT NAME HUNT NUMBER PERMITS AVAILABLE	BEAVER (EARLY)	BEAVER (LATE)	DUCHESNE (EARLY)	DUCHESNE (LATE)	WEST EMERY COUNTY	FILLMORE	COLORADO RIVER (EARLY)	COLORADO RIVER (LATE)	GREEN RIVER	MONROE MOUNTAIN	MORGAN-SOUTH RICH	OGDEN	PINE VALLEY (EARLY)	PINE VALLEY (LATE)	SAN JUAN (EARLY)	SAN JUAN (LATE)	UINTAH COUNTY (EARLY)	UINTAH COUNTY (LATE)	UTAH COUNTY NORTH (EARLY)	UTAH COUNTY NORTH (LATE)	UTAH COUNTY SOUTH	WASATCH COUNTY	WEST PINE VALLEY	BOULDER MOUNTAIN (EARLY)	BOULDER MOUNTAIN (LATE)	KOLOB	LASAL (EARLY)	LASAL (LATE)	ZION (EARLY)	ZION (LATE)	TOTAL

		Distinct			Mixed		Adults w/o									
Region and		Broods		Mean	Observations		Poung	Total	Total	Young/	Vehicle		Hours of Effort			Birds/
County	*	Adults	Young	Brood	Adult	Young		Adults	Young	Young 100 Ad	Miles	Vehicle	Horse	Walk	Total	100 Hr
Northern Region																
Box Elder	ł	ı	1	1	;	ł	ł	1	1	1	I	ł	1	1	1	1
Cache	I	ł	I	1	1	ł	1	ł	1	I	1	1	I	1	1	ł
Davis	ł	1	I	I	ł	:	ł	:	1	:	ł	ł	ł	1	1	1
Morgan	ł	1	1	;	1	ł	;	1	ł	ł	I	ł	ł	ł	ł	t
Rich	I	ł	ł	ł	ł	ł	1	1	:	;	I	1	1	1	I	ł
Summit	ł	:	ł	ï	;	:	ł	ł	;	1	ĩ	ł	ł	ł	ł	1
Weber	1	1	ł	1	I	1	:	ł	ł	1	1	1	I	1	ł	ł
REGIONAL TOTALS	1	1	1	1	:	:	1	1	1	ł	1	:		1	:	1
Central Region																
Juab	2	2	20	10.00	ŝ	12	0	2	32	457	25	g	I	ſ	9	650
Salt Lake	ł	;	1	I	1	I	ł	ł	ł	:	I	1	1	1	1	1
Sanpete	I	1	I	:	1	;	;	1	1	ŧ	ł	I	ł	ł	1	ł
Tooele	ł	;	1	ł	ł	1	1	1	ł	ł	1	1	ł	ł	ł	I
Utah	0	0	0	1		30	2	15	30	200	20	ŝ	1	ł	40	006
Wasatch	-	-	2	2.00	4	12	~	12	14	117	20	ŝ	ļ	;	10	520
REGIONAL TOTALS	ę	с С	22	7.33	17	54	14	34	76	224	65	16	1	1	16	688
Southern Region																
Beaver	ł	I	1	I	1	1	ł	ł	ł	ł	1	1	1	I	ł	ł
Garfleld	I	1	I	I	1	1	1	1	1	1	1	1	1	١	1	ł
ron	ł	I	ł	1	1	1	I	1	ł	I	I	ı	1	I	1	ł
Kane	I	ł	I	1	ł	I	ł	I	1	I	I	1	1	1	1	1
Millard	1	1	1	1	1	I	ł	I	ł	1	ł	1	I	ł	1	1
Plute	ł	1	1	1	1	ł	1	ł	1	I	1	ł	1	I	1	I
Sevier	I	ł	I	I	1	1	1	1	ł	1	1	ł	1	1	ł	I
Washington	1	ł	1	ł	ı	1	1	1	ł	1	1	ı	ľ	ł	I	ł
Wayne	1	1	:	1	1	1	1	1	1	1	:	I	ł	ı	1	1
REGIONAL TOTALS	1	1	1	1	1	1	1	1	1	1	1	1	1	I	I	1
Northeastern Region																
Daggett	1	I	1	1	I	I	1	1	ł	1	1	I	1	I	ł	I
Duchesne	1	1	1	ŧ	ł	ł	I	ł	1	1	ł	1	1	1	I	I
Uintah	ı	1	1	1	I	1	1	1	ł	;	ı	F	ī	i	1	1
REGIONAL TOTALS	1	1	I	I	I	1	1	1	1	1	1	ł	I	1	I	1
Southeastern Region																
Carbon	I	1	:	ł	I	1	1	ł	ł	:	I	1	1	I	1	1
Emery	I	1	ł	ł	1	I	ł	1	1	1	1	ł	i	ı	ł	I
Grand	I	ł	I	1	1	ł	1	1	1	1	1	1	1	1	I	ł
san Juan	1	1	1	ı	I	1	1	1	1	1	1	1	1	1	1	1
REGIONAL TOTALS	I	ł	I	1	I	1	1	1	1	1	I	ı	1	1	I	ł



The Columbian sharp-tailed grouse is one of four species of grouse native to Utah. Sharptails 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, sharptail habitat was directly converted to farmland or was seriously impacted by heavy grazing. Pheasants now occupy areas that at one time supported habitat for sharptails.

There was no legal harvest of sharp-tailed grouse in Utah from 1980 through 1997. From 1986 through 1992, the number of birds present on active dancing grounds was substantially greater than in the previous years (Table 1.). 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 and 1992-93. The winter of 1992-93 devastated sharp-tailed grouse populations. In addition, wildland fires in the summer of 1994 destroyed countless acres of sharp-tailed grouse habitat in Box Elder County.

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 is benefitting sharp-tailed grouse populations by providing undisturbed nesting and brood-rearing cover.

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 four 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 in 1997 is shown in Table 2.

Table 1. §	Table 1. Summary of sharp-tailed grouse dancing ground counts, 1979-97.	und cou	nts, 1079.	97.															
County	Vanding Ground Name	1979	1980	1981	1982	1983 1	1984 1	1985 796		1987 1988	88 1989	1890	1981	1992	1993	1994	1995	1996	1997
Box Elder	 West Hills Complex (Located 1977) 	1	4	12		#	ð	8					**63	** 99	-0	æ	Ŷ	ъĊ	0 N
	Humaaker's Field (Located 1977)	ę	Ö	•	0	•	0		18		•	1	e0	32	-	~	ÿ	~	-
	South White's Valley (Located 1977)	•	•	•	•0	0	•	~					5	\$	I	~	ÿ	ю	Ŷ
	North White's Valley #1 (Located 1977)	•	•	0	0	0	•	•	-	18 11			2	10	en	•	ÿ	60	+
	North White's Valley #2 (Located 1996)																ę	ÿ	22
-													***	÷	64	9	¥	19	4
		~	•	\$	ŧ	7	5	 æ	20	20 19	181	÷	4	¥	1	~	ÿ	¥	Ŷ
	Blue Creek (Located 1991)												10	1	0	4	Ŷ	Ŷ	Ŷ
	Howell Valley #1 (Located 1991)												13**	; 9	I	ı	N	ÿ	ž
	Microwave Tower (Located 1957)								÷	~	•	1	1	Ă	1	t	Ŷ	¥	S.
	Sunset Pass (Located 1991)												: 8	1	,	1	Ŷ	Ŷ	N
	Nucor (Located 1991)												ŧ	5	۲	1	Ŷ	ÿ	Ņ
	Wellsville-Cottonwood (Located 1981)												* •0	æ	м	64	ŝ	0	N
	Snowville-Radio Tower (Located 1981)												1	<	•	ÿ	NC	ÿ	NC N
	Johnson Canyon (Located 1994)															g	Ŷ	Ň	•
•																			
Cache	Bankhead Well (Relocated 1976)	2	2	0	0	1	1					1	ž	Ż	I	ł	Ŷ	ÿ	N.
	Baxter Ridge (Rejocated 1975)	1	m •	•• ;			,					t	Ş	ÿ	1	1	ŝ	S i	N S
V	-		4	÷	•••	1	1	1	•	ф,	1	1	1	<u>ہ</u>	æ	œ (2	¥:	29
r	Pign Creek (Located 1951)			-	1	ĩ	ı					ł			1.	<u> </u>	2 g	2 3	ž
	Claimatoli (Localeu Feel) Enir Mile 44 / Anatad 4004)												3		<	7		2.	
	Four Rete #2 (Located 1994)												ţ	ž	1	t I		- 2	
	McKenzle Flat (Located 1992)												r	~	I	1	皇	ž	ŝ
	Cottonuovol (1 annitad 1875)	2												Ş			4	4	5
		5	. •	ı	ı	ı	ı	1		:		1	5	29	1	1	2	20	2
			•	1	I	I	1					ŧ	ž	ÿ	ł	ı	U I	¥	Q :
	Bonman Hollow (Located 1991)												-	ÿ	ı	1	ÿ	•	ÿ
Weber	Monastery (Located 1969)		ð	0	0				1		1	1	1	Ň	1	1	ÿ	NC	Ň
Total Grou	Total Grounds Counted	16	16	17	16								8	16	6	7	-	æ	-
Total Grou	Fotal Grouse Counted	2	2	25	3	28		58		90			236	210	38	99	1 8	89	42
Average N	Average Number of Grouse/Ground	4.70	1.60	3.40	2.10							4	13.00	13.00	2.89	6.60	18.00	7.33	8.40
Bae HgiH**	"High asgebrush precluded an accurate count-birds were counted when flushed	were cou	inted whe	n fluehed.															
Since vie.	Since visitation by famalas at any vivan time is jow, an astimuted 00% of the avail	in setting	Mand Breek	of the are		an the av	a sas pro-	and an											

.

Since visitation by females at any given time is low, an estimated 80% of the grouse seen on the ground are males. Therefore, this figure is an estimate of the males on the ground.

A = ACTIVE NA = NOT ACTIVE NC = NOT COUNTED

167

.

Table 2. Sharp-tailed grouse summer inventory, 1997.	Brout	Be summ	er invent	tory, 1997.													
ſ		Distinct			Mixed Young	_				1							
County	ž	Broods Adults	Yound	Brood	& Adults Adults	Yound	Adults w/o Young	Total	Total	Total	Young/	Vehicle	1.00	Hours of Effort		-	Birds/
Northern Region						R. 10.	Rino	SINNE	Binoi		LUU AUUTS	Sallw	Venicie	HOISE	walk Total	Total	100 Hr
Box Elder	ę	~	17	5.67	1	1	m	ę	17	23	283	1	I	er;	ł	c	787
Cache	ł	I	:	1	1	1	:	:	I	I	1	ł	ł	> 1	1	•	5
Davis	1	1	r	1	I	1	1	ł	:	:	I	ł	;	ł	1	1	
Morgan	1	ł	1	1	I	-1	1	1	1	;	;	1	1	1			1
Rich	ł	1	1	:	1	1	:	1	1	;	1	:	1	1		. 1	1
Summit	ł	ŧ	;	;	:	I	1	1	1	ł	:	1	1	1	1	1	1
Weber	:	•	;	1	:	1	1	1	1	:	ł	:	1	;	1	: 1	
REGIONAL TOTALS	e)	3	17	5.67	0	•	~	9	11	23	283	6		~		1	167
Central Region													•	2	>	2	
Juan Sala I ata																	
Topolo						S	NOT APPLICABLE										
litah Litah																	
Otan Monatata																	
PECIONAL TOTAL C																	
REGIONAL IOLALS																	
southern Hegion																	
Beaver																	-
Garrield																	
Iron																	
Kane						0 N	NOT APPLICABLE										
Millard																	
Piute																	
Sevier																	
Washington																	
Wayne																	
REGIONAL TOTALS										ļ							
Northeastern Region				ĺ													
Daggett																	
Duchesne						02	NOT APPLICABLE										
Uintah																	
REGIONAL TOTALS																	
Southeastern Region												Ì					
Carbon																	
Emery						2	NOT APPLICABLE										
Grand																	
San Juan																	
REGIONAL TOTALS																	
STATE TOTALS	ę	ę	17	5.67	0	0	-	9	11	23	283	-	0	er	-		787
							-								2		



The white-tailed ptarmigan (<u>Lagopus leucurus</u>) 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.

Since introduction in 1976, ptarmigan have dispersed into available habitat from the west, 100 miles to the east in the Uinta Mountains.

Breeding Territory and Brood Surveys

Surveys on the ptarmigan population continue, as time and manpower constraints allow. 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 years of survey data are found in Tables 1 and 2.

These surveys have not been conducted over the past several years due to the remoteness of ptarmigan habitat and other constraints on field biologist's time.

Harvest

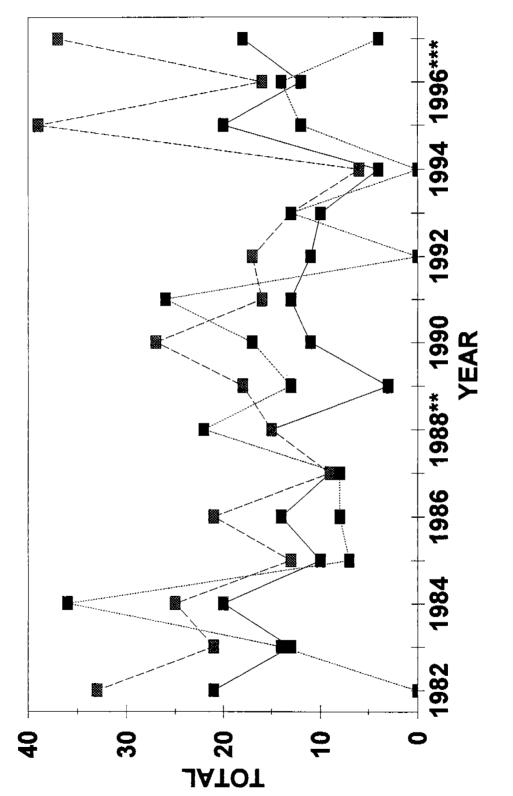
Forty-seven hunters obtained free permits to hunt ptarmigan in Utah in 1997 (Table 3). An estimated 18 hunters actually pursued ptarmigan and 4 birds were killed.

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

Results of the 1997 season are shown in Table 3 of this section. The trend of these data since 1982 is shown in Table 3 and Figures 1 and 2. The 1997 season compared to 1996 and the previous 15-year average follows:

		Percent change from	Percent change from
	<u>1997</u>	<u>1996</u>	Average
Permits sold	47	+57	+58
Ptarmigan hunters	18	+50	+45
Hunter-days afield	37	+131	+92
Ptarmigan harvest	4	-71	-68
Ptarmigan per hunter	0.22	-81	-81
Ptarmigan per hunter-day	0.11	-88	-85

Figure 1. Ptarmigan harvest statistics, 1982-97.



-- Hunters

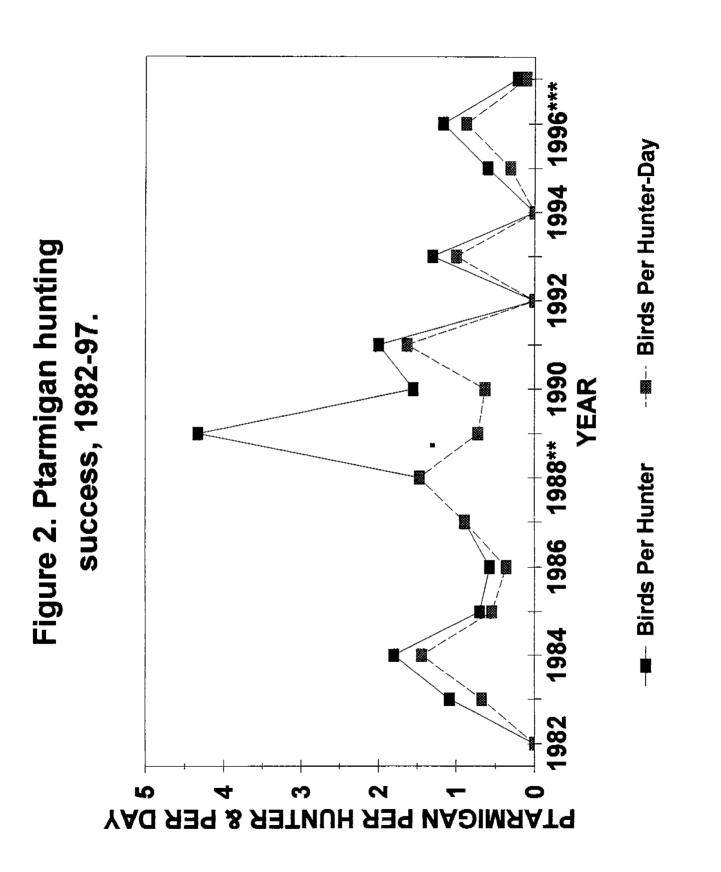


Table 1. Summary of white-tailed ptarmigan breeding territories (pairs), 1987-97.

lable I. o	lable 1, Summary of white-tailed plarmigan	uarringan		preeding territories (pairs), 1307-37.	i pairs),	1201-21.						
County	Location	1987	1988	1989(1)	1990	1991	1992	1993	1994	1995	1996	1997
Duchesne	Painter Basin											
Duchesne	Gilbert Basin		zo	zo	zo	z¢	zo	zo	zo		zc	zo
Duchesne	Duchesne Atwood Basin		,) (,) (. .) (,		,	، د
Duchesne	Duchesne Yellowstone River		ם כו מ	ם כ מ	ם כ מ	ם כ מ	ם כ מ	ם כ מ	<i>n</i> ⊃ a		<i>0</i> ⊃ 0	םכמ
Summit	Henry's Fork		< > I	< > L	2 > 1	< > ۱	< > ۱	د > د	< > L		< > u	< > u
Summit	Flat Top Mountain	ę	ע ≻	ע ≻	⊔≻	ע ≻	ע ≻	u ≻	⊔ ≻		⊔ ≻	u ≻
Summit	Lake Blanchard											
Summit	Beaver Creek											
Summit	Smith's Fork											
Summit	Burnt Fork Drainage								•	•		
Uintah	Leidy Peak											
(1) Investig	(1) Investigator was incapacitated.											

1987-97.	
inventory,	
n brood	
ptarmiga	
White-tailed	
Table 2.	

Area:					DATE						
Statistics	8/87 8/25-31	1/25-31	8/89	8/90 8/91 8/92	8/91	8/92	8/93	8/94	8/95	96/8	8/97
									I		
Painter Basin											
E	ł	ł	ł	I	I	1	ı	I	I	I	ł
Mean Brood	ł	1	ł	1	;	1	ł	ł	ł	ł	ł
Young/100 Adult Hens	1	ł	ł	ł	;	1	ł	ł	ł	I	ł
Hens w/o Broods	1	1	ł	I	ł	ł	;	ł	ł	ł	I
Adult Males	1	1	I	I	1	1	ł	1	I	1	1
Henry's Fork		(e)									
-	ო	~	1	1	ł	ł	I	ł	ł	ł	ł
Mean Brood	4.00	2.33	ł	I	ł	ł	:	1	ł	1	I
Young/100 Adult Hens	217	233	ł	ł	ł	ł	:	ł	ł	I	1
Hens w/o Broods	ę	9	I	1	ł	I	I	ł	I	I	ł
Adult Males	I		ł	ł	ł	ł	ł	ł	ł	ł	ł
Yellowstone											
E	1		7	↽	ł	1	ł	1	ł	ł	1
Mean Brood	ł		4.00	4.00	ł	t	ł	I	1	1	1
Young/100 Adult Hens	ł		366	40 0	ł	ł	١	ł	ł	I	ł
Hens w/o Broods	t		4	0	I	1	1	1	1	ł	ł
Adult Males	1		1 8	0	ł	I	1	1	I	I	I
Smith's Fork											
E			1	ł	1	ł	1	1	1	1	1
Mean Brood	6.00		1	1	ł	1	ŧ	1	ł	ł	1
Young/100 Adult Hens	120		ł	I	ł	ł	I	ł	1	ł	1
Hens w/o Broods	4		1	1	ł	1	1	1	1	I	1
Adult Males			I	1	I	I	I	I	I	1	1
Atwood Basin											
Ē			1	1		1	I	ł	ł	I	1
Mean Brood			1	1	2.00	1	1	ł	1	ł	1
Young/100 Adult Hens			I	ł	200	ł	I	1	ł	ł	ł
Hens w/o Broods			1	ł	0	ł	1	I	ł	ı	I
Adult Males			;	1	0	1	I	1	I	1	:

Area:					DATE					
Statistics	8/87	8/25-31	8/89	8/90	8/91	8/92 8	8/93 8/94	4 8/95	5 8/96	8/97
Flat Top Mountain		(e)								
	-) en	1	1	1				1	1
Mean Brood	6.00	4.33	I	I	ł	ł	;	1	ł	1
Young/100 Adult Hens	006	433	ł	ł	ł				ł	ł
Hens w/o Broods	•	đ	1	1	I				1	I
Adult Males	0	0	1	1	1				1	I
Little E. Fork - Black's Fork										
	1		:	1	ł				1	I
Mean Brood	I		1	I	ł				ł	1
Young/100 Adult Hens	1		1	ł	ł	ł	1		1	ł
Hens w/o Broods	I		ł	1	I				1	I
Adult Males	1		1	I	ł				1	1
Rainbow Basin										
	1		I	1	I	ł	1		I	1
Mean Brood	1		ł	1	I				I	1
Young/100 Adult Hens	I		ł	1	I				1	I
Hens w/o Broods	1		I	I	1				1	l
Aquit males	I		1	ı	I				1	1
Gilbert Basin										
li Masn Brood	1		I	1	ł				1	1
ream brow Younn/100 Adult Hens	11		1 1	11	1 1				1	1 1
Hens w/o Broods	. 1		I	1	1				ił	1
Adult Males	1		ł	ł	I	1	1	1	I	1
Samuel's Draw										1
-	1		ı	1	I	i	1	1	ł	ł
Mean Brood	1		1	I	I				1	ł
Young/100 Adult Hens	1		1	I	I				1	I
Hens w/o Broods	1		ł	I	I				1	ł
Adult Males	1		1	1	1				1	1
Leidy Peak	•									
•			1	1	ł				ł	I
Mean Brood	2:00		I	1	i	I	1	1	ł	ĩ
Toung/Tou Adult Hens	200		1	1	ł				l	I
Hens W/o Broods	5		1	1	I				1	t
Adun males	2		1	1	1				1	1

Table 2. (continued)											
Area:					DATE						
Statistics	8/87 8	8/87 8/25-31	8/89	8/90	8/91	8/92	8/93	8/94	8/95	8/96	8/97
East F. Black's Fork											
E	;		Ĩ	1	1	1	1	1	ł	ł	1
Mean Brood	;		1	1	ł	I	ł	1	1	1	ł
Young/100 Adult Hens	I		1	1	ł	1	I	1	1	ł	ł
Hens w/o Broods	1		1	1	ł	1	ł	1	ł	ł	ł
Adult Males	:		I	1	I	I	1	1	ł	1	1
Joulious Creek		(e)									
E)0	ł	ł	1	I	ł	ł	1	ł	\$
Mean Brood		0.00	1	ł	ł	ł	ł	1	ł	ł	ł
Young/100 Adult Hens		•	ł	1	ł	ł	;	ł	ł	ł	ł
Hens w/o Broods		4	1	1	1	ł	ł	ł	ł	1	1
Adult Males		0	1	I	1	1	t	ł	ł	1	:
TOTALS		(e)									
=) y	2	÷	-	1	1	I	ł	I	I
Mean Brood		3.33	4.00	4.00	2.00	ł	ł	ł	1	ł	I
Young/100 Adult Hens		333	366	40	200	1	ł	I	I	1	1
Hens w/o Broods		19	4	0	0	ł	ł	ł	1	1	1
Adult Males		•		•	0	1	1	I	I	1	I
Total Birds Observed		45	18	2	3	1	1	I	ł	ł	ł
e Mixed Adults n Number of Broods							1				

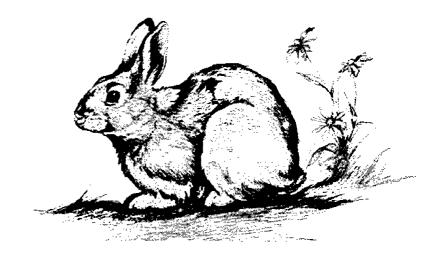
nples or projection factors.	
percent samples or	
tics, 1982-97. Estimates are caiculated based upon 100 percent samples	
Estimates are calcul	
cs, 1982-97.	
armigan harvest statisti	
ary of white-tailed pt	
Table 3, Summ	

Í

									% Hunters	
	Permits	Hunters	Hunter-Days	Total Harvest	Birds Per Hunter	Birds Per Hunter Birds Per Hunter-Day Crippling Loss	Crippling Loss/	Ptarmigan	Observing	Immatures per
Year	Sold	Affeld	Affeld				100 Bagged	Observed	Ptarmigan	100 Adults
1982	48	21	33	0	0.00	0.00	0	0	ſ	3
1983	31	13	21	14	1.08	0.67	0	25	30	ł
1984	28	20	25	36	1.80	1.44	0	I	I	:
1985	55	1	13	7	0.70	0.54	14	6	14	I
1986	49	14	21	80	0.57	0.36	0	œ	22	1
1987	45	0	6	æ	0.89	0,89	ł	1	1	1
1988**	28	15	15	22	1.47	1.47	ł	59	1	4.50(11)
1989	20	3	18	13	4.33	0.72	1	35	1	, 1
1990	17	1	27	17	1.55	0.63	0	28	35	1
1991	15	13	16	26	2.00	1.63	0	95	50	ł
1992	17	1	17	0	0.00	0.00	0	56	36	ł
1993	9	10	13	13	1.30	1.00	0	140	38	I
1994	14	4	9	0	0.00	0.00	0	ę	100	I
1995***	39	20	39	12	0.60	0.31	0	31	7	I
1996***	30	12	16	14	1.17	0,88	0	106	29	1
1997***	47	18	37	4	0.22	0,11	0	17	1	1
STATE TOTALS (1982-97)	493	204	326	194				612		
STATE AVERAGES (1982-96)	30	12	19	13	1.16	0,70		40	24	
For the first time a handling fee of \$2.00 per permit was charged *Permit still required. but at no charge	andling fr but at no	se of \$2.00 o charge) per permit was	charged.						
Broton Factor			A mina 91110030000 1	200	alte cold/number o	rmite coldinimher of guestionnelree refutned)				

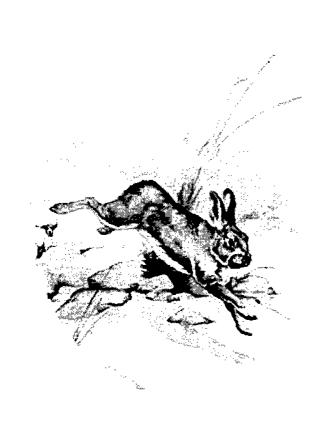
1.38235294118 (number of permits sold/number of questionnaires returned) 47 permits sold 34 questionnaires returned Projection Factor =

-



Cottontail populations remain below a high in 1988.

Summer roadside counts indicated a decreased population density statewide, and reproduction was below 1996. Harvest statistics indicated decreased hunter success, and is still 58 percent below average.



Hunter numbers decreased 16 percent from the previous year and remained well below average.

COTTONTAIL RABBIT

Roadside Counts

Results of the annual roadside counts for 1997 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 Tables 2 and 3. Indices for 1997 compared to 1996 and the 10-year (1987-96) average follow:

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Total miles driven	521	+5	-35
Total cottontails counted	127	-55	-56
Cottontails observed per mile	0.24	-58	-38
Young observed per 100 adults	98	-40	+28

Production data from roadside counts indicated an decrease in the statewide cottontail population. The cottontail young per 100 adults index decreased 40 percent from 1996, but was 28 percent above the long-term average.

Harvest

Hunter Questionnaire

Results of the 1997 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 1997 season compared to 1996 and the previous 30-year average follow:

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Cottontail hunters	26,263	-15	-47
Cottontail harvest	61,109	-26	-58
Hunter-days afield	52,587	-18	-45
Cottontails per hunter-day	1.16	-10	-19
Cottontails per hunter	4.98	-13	-16

Total hunters decreased 15 percent from 1996. Total harvest decreased 26 percent. Total harvest was 58 percent below average. Hunter success was 19 percent below average. Harvest data indicate another year of below average populations of cottontails.

Field Bag Checks

Results of field bag checks for 1997 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 1997 field bag check data to 1996 and the 10-year (1987-96) average.

	<u>1997</u>	Percent change from <u>1996</u>	Percent change from <u>Average</u>
Total hunters checked			
Total hours hunted	-		
Cottontails per hunter			
(complete hunts)			
Cottontails bagged per 100 hours			
Hours per hunter day			
Hours per cottontail bagged			
(complete hunts)			

No cottontail field bag check data was collected in 1997.

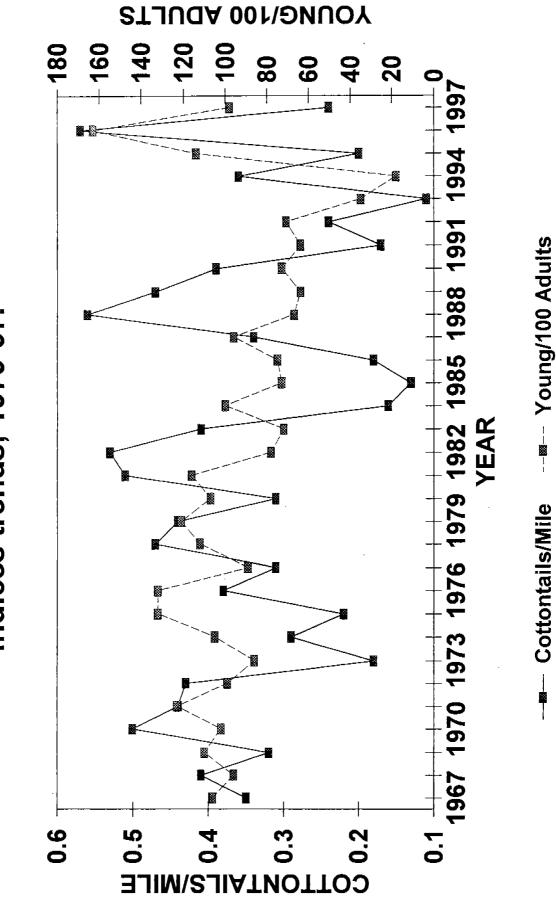


Figure 1. Cottontail rabbit population indices trends, 1979-97

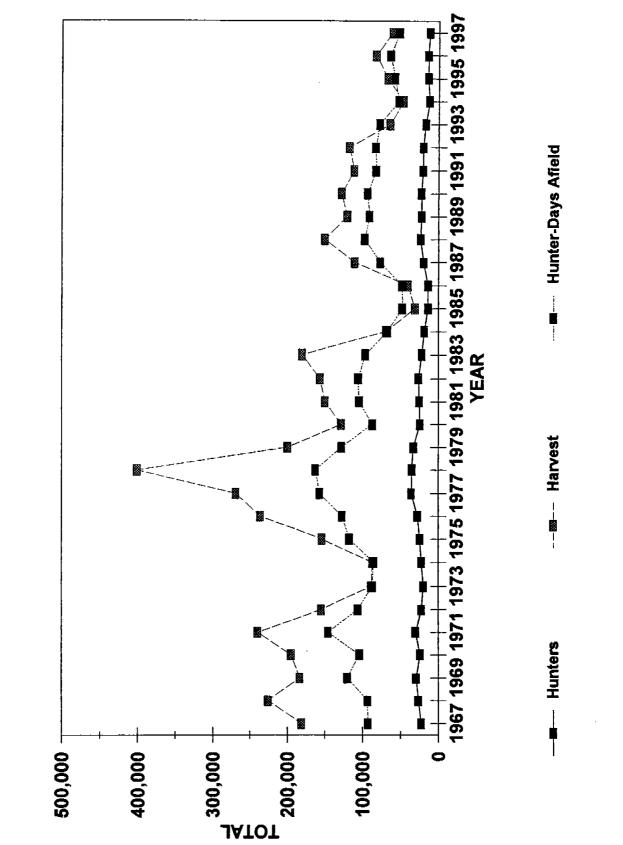
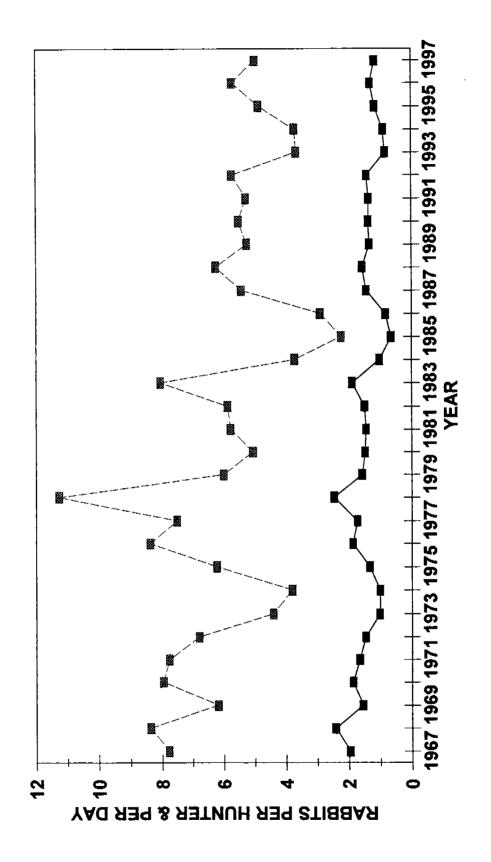


Figure 2. Statewide trends of c/t rabbit harvest statistics, 1967-97.

181

F

Figure 3. Statewide trends of c/t rabbit hunter success rates, 1967-97.





County C Northern Region Box Elder Cache Davis					.		
em Regio Ider	Driven	Adults	Young	Unclassified	Total	100 Adults	Mile
x Elder che vis							
che Vis	1	1	I	1	I	ł	1
vis	ł	ł	1	ł	1	ł	1
	1	1	I	ł	ł	1	1
Morgan	ł	1	1	ł	1	1	1
Rich	1	I	I	1	ł	1	1
Summit	ł	ł	ł	ł	ł	ł	1
Weber	I	ł	ł	;	:	1	ł
REGIONAL TOTALS	1	1	1	1	1	1	1
Central Region							
Juab	66	0	0	0	0	ERR	0.00
Sait Lake	ł	ł	ţ	ł	ł	1	1
Sanpete	06	0	•	0	0	ERR	0.00
Tooele	06	0	0	0	2	ERR	0.02
Utah	1	ł	1	ł	1	8	1
Wasatch	1	ł	1	ł	ł	ł	I
REGIONAL TOTALS	270	•	2	0	2	ERR	0.01
Southern Region							
Beaver	I	ł	I	ł	ł	1	1
Garfield	I	I	I	1	I	1	ı
Iron	E	I	ł	I	ł	I	I
Kane	ł	1	I	ł	ł	ł	ł
Millard	I	ł	I	ł	ł	ł	ł
Piute	1	1	ł	I	ł	ł	I
Sevier	ł	I	I	ł	ł	ł	ł
Washington	ł	ł	ł	ł	ł	I	1
Wayne	I	ł	ł	I	I	ł	ł
REGIONAL TOTALS	1	I	1	1	1	1	I
Daggett	20	28	25	n	56	89	0.80
Duchesne	91	10	1	σ	30	110	0.33
Uintah	06	17	16	9	39	94	0.43
REGIONAL TOTALS	251	55	52	18	125	95	0.50
Southeastern Region							
Carbon	ł	I	I	I	1	ł	1
Emery	1	I	1	ł	1	1	1
Grand	ł	1	I	1	ł	1	1
San Juan	1	1	1	ł	I	1	1
REGIONAL TOTALS	ł	1	1	1	1	ł	1
STATE TOTALS	521	55	54	18	127	98	0.24

County1987Northern Region0.03Box Elder0.03Cache-Davis-Morgan-Morgan-Norgan-Morgan-Morgan-Morgan-Morgan-Norgan-Morgan-Summit-Veber-Veber0.03Juab-Salt Lake-Sanpete-	37 1988 33 1988 33 1988 10 0.54	1989 0.03	1990	1991	1992	1993	1994	1995	1996	1997	1987-96
rn Region der t NAL TOTALS Region ke		0.03									
der t NAL TOTALS Region ke		0.03									
t NAL TOTALS Region ke		1 1	0.39	0.10	0.08	ł	1	ł	1	1	
an nit r ONAL TOTALS al Region ake		ł	ł	1	I	ł	ł	ł	1	1	
an nit r ONAL TOTALS al Region ake ete		i	1	ł	I	ł	1	ł	1	ł	
nit r ONAL TOTALS al Region ake ete		1	ł	ł	ł	I	1	1	ł	ł	
nit r ONAL TOTALS al Region ake ete		ł	1	ł	1	1	I	I	ł	1	
r ONAL TOTALS al Region .ake ete		1	ł	ł	1	ł	ł	1	ł	I	
ONAL TOTALS al Region .ake ete		ł	1	I	1	ł	I	ł	1	1	
al Region .ake ete		0.03	0.39	0.10	0.08	I	1	;	1	1	0.13
ake ete											
	1	0.30	0.23	1	ł	ł	ł	0.01	0.02	00'0	
		ł	ł	ł	ł	ł	ł	I	1	ł	
	. 0.47	0.22	0.65	0.09	0.15	0.01	1	0.07	0.14	0.00	
Tooele 0.02		1	I	ł	0.03	ł	ł	0.02	0.00	0.02	
Utah	1	ł	ł	ł	1	ł	ł	ł	ł	1	
Wasatch	I	1	1	I	I	1	1	1	ł	I	
AL TOTALS 0	o	0.26	0.45	0.09	0.08	0.01	1	0.04	0.06	0.01	0.15
Southern Region											
Beaver 0.04	0.06	ł	1	1	ł	I	1	1	1	ł	
Garfield	1	ł	I	ł	ł	ł	ł]	ł	1	·
lron 0.26		I	1	ł	ł	I	ł	1	ł	1	
Kane 0.97		ł	1	ł	ł	1	1	1	I	1	
T	90.0 90	ł	0.08	ł	ł	1	I	ł	i	1	
Plute 0.05	92 1	ł	I	1	I	ł	ł	ł	ł	I	
Sevier		ł	1	I	1	1	1	ł	1	I	
Washington 0.12		0.33	1	ł	1	ł	ł	1	I	1	
Wayne 0.24		I	I	0.83	0.21	1	1	1	1	1	
VAL TOTALS	27 0.33	0.33	0.08	0.83	0.21	1	1	1	1	1	0.34
stern Region						!		1		•	
Daggett 0.66	Ŭ	0.50	0.55	I	0.28	0.07	0.07	0.50	0.94	0.80	
Duchesne 0.86	36 1.49	1.04	0.23	0.03	0.60	0.23	0.56	0.39	1,69	0.33	
Uintah 0.36		1.40	1.00	1	0.18	0.17	0.24	0.23	0.82	0.43	
REGIONAL TOTALS 0.65	55 1.18	0.91	0.57	0.03	0.38	0.16	0.36	0.39	1.21	0.50	0.58
Southeastern Region				1							
Carbon 0.33	33 0.41	0.34	0.02	0.20	0.21	0.13	I	1	ł	I	
Emery 0.40		0.33	0.40	0.37	0.34	0.06	ł	ł	1	ł	
		90.06	0.01	0.05	0.13	0.20	ł	I	1	1	
		0.55	0.80	0.28	0.34	0.16	ı	1	I	I	
ALS	38 0.36	0.32	0.36	0.24	0.26	0.14	1	I	1	1	0.29
STATE TOTALS 0.34		0.47	0.39	0.17	0.24	0.11	0.36	0.20	0.57	0.24	0.34

Table 3. Summary of cottontail rabbit young per 100 adults, 1987-97	cottonta	il rabb	it youn	g per 1	00 adu	lts, 198	17-97.					
County	1987	1988	1989	1990	1991	1992 1992	1993	1994	1995	1996	1997	Average 1987-96
Northern Region												
Box Elder	25	ł	200	200	13	67	ł	ł	ł	1	1	
Cache	I	1	ł	1	ł	I	ł	ł	1	1	1	
Davis	ł	1	I	ł	ł	1	ł	1	ł	I	ł	
Morgan	ł	ł	ł	I	ł	ſ	ł	ł	ł	ł	ł	
Rich	1	ł	ł	1	I	ł	ł	ł	ł	ł	I	
Summit	ł	ł	1	I	ł	ł	ł	ł	1	1	ł	
	1	ł	I	1	1	ł	I	I	ł	ł	I	
REGIONAL TOTALS	25	1	200	200	13	67	ł	I	1	1	1	101
Central Region												
Juab	0	20	13	ł	I	ł	ł	ł	0	100	ł	
Salt Lake	ł	1	;	ł	ł	ł	1	1	1	ł	I	
Sanpete	I	88	40	40	50	50	1	ł	133	100	I	
Tooele	100	120	ł	ł	I	100	ł	I	E	1	ł	
Utah	1	1	I	ł	ł	ł	ł	I	I	:	ł	
Wasatch	I	ł	ł	ł	I	I	ł	ł	ł	ł	ł	
REGIONAL TOTALS	100	57	23	27	50	57	1	1	125	100	1	67
Southern Region												
Beaver	1	ł	ł	ł	ł	I	1	I	I	ı	I	
Garfield	ł	ł	ł	ł	ł	I	ł	I	1	1	ł	
łron	1	I	i	I	1	1	ł	1	1	ł	I	
Kane	111	149	I	1	ł	ł	ł	ł	1	ł	I	
Millard	114	110	I	100	ł	1	I	1	1	ł	ł	
Piute	ł	1	ł	ł	ł	ł	1	1	I	ł	ł	
Sevier	1	I	I	ł	ſ	ł	1	ł	ł	ł	1	
Washington	175	100	131	ł	ł	I	1	ł	I	ł	ł	
	2100	244	ł	I	369	138	1	ŧ	1	ł	I	
REGIONAL TOTALS	137	136	131	100	369	138	ł	1	1	1	1	168
Northeastern Region						1						
Daggett	116	30	59	55	I	89	33	1	100	177	89	
Duchesne	24	39	29	1	20	138	36	17	183	172	110	
Uintah	264	170	239	95	ł	10	80	50	50	156	94	
REGIONAL TOTALS	74	46	82	58	50	95	47	18	113	170	95	75
Southeastern Region									I.			
Carbon	567	500	400	400	I	25	I	1	ł	ł	I	
Emery	54	50	I	1	I	ł	I	1	I	I	I	
Grand	I	1	1	1	ł	6	ł	ł	ł	1	ł	
San Juan	47	49	80	60	54	37	18	ł	1	I	1	
REGIONAL TOTALS	100	64	110	67	100	33	18	1	1	I	1	70
STATE TOTALS	96	67	64	73	64	71	35	18	114	163	9 8	11
18						1				ì		

ł

ł

j

Ĩ

REGION AND	SAMPLE	HUNTER-DATS		RABBITS PER	1. March 6, 2, 5 March 10, 20	
COUNTY	SIZE	AFIELD	BAGGED	HUNTER-DAY	PRESSURE	HARVEST
NORTHERN REGION						
BOX ELDER	67	3,845	3,762	0.98	7.31	6.16
CACHE	11	290	83	0.29	0.55	0.14
DAVIS	0	0	0	0.00	0.00	0.00
MORGAN	7	270	124	0.46	0.51	0.20
RICH	18	623	353	0.57	1.19	0.58
SUMMIT	9	457	581	1.27	0.87	0.95
WEBER	6	207	124	0.60	0.40	0.20
REGIONAL TOTALS	118	5,695	5,030	0.88	10.83	8.23
CENTRAL REGION						
JUAB	34	2,224	1,621	0.73	4.23	2.65
SALT LAKE	8	789	872	1.11	1.50	1.43
SANPETE	19	1,288	872	0.68	2.45	1.43
TOOELE	76	4,780	2,660	0.56	9.09	4.35
UTAH	55	3,034	1,496	0.49	5.77	2.45
WASATCH	4	415	41	0.10	0.79	0.07
REGIONAL TOTALS	196	12,533	°4⊥ 7,565	0.60	23.83	12.38
SOUTHERN REGION						
BEAVER	6	290	353	1.21	0.55	0.58
GARFIELD	3	332	436	1.31	0.63	0.71
IRON	4	166	166	1.00	0.32	0.27
KANE	5	623	665	1.07	1.19	1.09
MILLARD	27	2,203	2,078	0.94	4.19	3.40
PIUTE	1	41	2,070	0.00	0.08	0.00
SEVIER	21	1,517	997	0.66	2.89	1.63
WASHINGTON	13	1,912	1,039	0.54	3.64	1.05
WAYNE	13	394	1,371	3.47		2.24
REGIONAL TOTALS	89	7,482	7,108	0.95	$\begin{array}{c} 0.75 \\ 14.23 \end{array}$	2.24 11.63
NORTHEASTERN REGION						
DAGGETT	22	1,184	3,388	2.86	2.25	5.54
DUCHESNE	76	5,632	8,355	1.48	10.71	13.67
UINTAH	86	9,976	19,392	1.94	18.97	31.73
REGIONAL TOTALS	184	16,794	31,136	1.85	31.94	50.95
SOUTHEASTERN REGION						
CARBON	27	3,284	3,200	0.97	6.25	5.24
EMERY	27	3,076	3,741	1.22	5.85	6.12
GRAND	9	1,205	665	0.55	2.29	1.09
SAN JUAN	16	2,307	2,535	1.10	4.39	4.15
REGIONAL TOTALS	79	9,873	10,143	1.03	18.77	16.60
UNKNOWN	1	207	124	0.60	0.40	0.20
STATE TOTALS	667	52,587	61,109	1.16	100.00	100.00

Table 4. Summary of cottontail rabbit hunter success and distribution of harvest and hunting pressure by region and county, 1997.

_..__..

*Total hunter trips from questionnaire returns.

Table 5. Summary of cottontail rabbits bagged per hunter-day by region and county, 1990-97.

- -

1997 6.16 0.14 0.00 0.20 0.58 0.95 0.20
0.14 0.00 0.20 0.58 0.95 0.20
0.14 0.00 0.20 0.58 0.95 0.20
0.14 0.00 0.20 0.58 0.95 0.20
0.00 0.20 0.58 0.95 0.20
0.20 0.58 0.95 0.20
0.58 0.95 0.20
0.95 0.20
0.20
and the could be be be be been as the first second s
8.23
2.65
1.43
1.43
4.35 2.45
0.07 12.38
a da ante da companya da ante br>Ante da ante da
0.58
0.71
0.27
1.09
3.40
0.00
1.63 1.70
2.24
2.24 11.63
Chilippe and the last
5.54
31.73 50.95
6.12
1.09
4,15 16.60
a a anna Shi a ta Shi Shi
0.20
0.20

Ż

Table 6. Percentage distribution of cottontail rabbit harvest by region and county, 1990-97.

and the second

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	9.84	9.06	13.30	7.38	8.84	8.29	6.84	6.16
Cache	1.07	1.61	1.50	2.04	1.60	0.55	0.39	0.14
Davis	0.02	0.14	0.00	0.03	0.00	0.14	0.45	0.00
Morgan	0.05	0.41	0.65	0.12	0.56	0.12	0.62	0.20
Rich	6.07	4.14	4.31	0.56	0.85	1.36	2.27	0.58
Summit	0.63	2.00	0.79	0.97	0.41	0.64	0.36	0.95
Weber	0.27	0.45	0.59	0.62	0.33	1.21	0.53	0.20
REGIONAL TOTALS		17.80	21.14	11.71	12.56	12.31	11.47	8.2
Central Region								
Juab	5.86	7.68	7.50	6.20	4.09	1.53	2.30	2.65
Salt Lake	0.68	0.36	1.09	0.97	0.30	0.35	3.03	1.43
Sanpete	3.34	2.80	3.39	0.97	4.09	1.62	2.55	1.43
Tooele	11.60	16.76	15.72	10.18	10.59	5.83	4.35	.4.35
Utah	6.51	6.20	6.42	5.28	4.42	5.52	7.69	2.45
Wasatch	0.44	1.09	1.10	0.59	0.41	0.32	0.08	0.07
REGIONAL TOTALS	28.43	34.88	35.22	24.20	23.89	15.16	20.00	12.3
Southern Region								
Beaver	0.44	0.92	1.51	0.18	3.90	0.92	0.31	0.58
Garfield	1.16	0.09	0.17	0.86	1.00	1.42	0.17	0.7
Iron	2.02	1.03	1.03	1.86	2.38	1.62	1.46	0.23
Kane	0.90	1.33	0.50	2.15	1.49	0.81	0.03	1.09
Millard	5.02	4.18	4.99	8.29	3.75	1.73	2.52	3.40
Piute	0.61	0.06	0.00	0.15	0.11	0.12	0.14	0.00
Sevier	3.07	1.75	1.79	2.27	2.23	0.64	4.10	1.63
Washington	2.02	1.34	0.94	6.96	6.24	5.95	2.75	1.70
Wayne	1.08	1.12	0.92		1.30	0_64	1.15	
REGIONAL TOTALS	34 4 4 1 1997 Aug 1998 5 1	1 1 1 1 1 1 X X X X X X X X X X X X X X	~ 14, v &		22.40		12.62	
Northeastern Reg	ion							
Daggett	2.37	3.28	1.63	3.13	1.19	1.13	1.85	5.54
Duchesne	8.55	10.98	8.67		5.83	17.48	17.39	
Uintah	13.44	9.10	7.25	8.29	11 55	21 55	22.05	
REGIONAL TOTALS	24.27	23.36	1755	24.37	18.57		41.29	50.9
Southeastern Reg	ion							
Carbon	, 5.83	5.04	6.05	4.22	10.25	6.09	5.29	5.24
Emery	4.20	3.26			4.20	5.00	5.64	
Grand	0.66	0.66			5.60	2.72	1.37	
San Juan	2.33	3.15			5.50	3.38	1.18	4.15
REGIONAL TOTALS				13.48				16.6
Unknown counties	0.00	0.00	0.00	2.80	0.00	1.36	0.50	0.20
STATE TOTALS	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, 1990-97.

County 1990 1991 1992 1993 1994 1995 1996 1997 Northern Region Cache 0.00 9.33 12.87 8.60 9.55 9.65 11.30 7.31 Cache 1.67 1.53 1.41 2.22 1.06 0.84 0.91 0.55 Davis 0.09 0.13 0.00 0.29 1.06 0.03 0.40 0.51 Rich 3.28 2.12 2.44 0.83 1.06 1.61 0.54 0.40 Summit 1.19 2.16 1.37 0.66 0.93 1.00 0.47 0.87 Meber 0.35 0.69 0.94 0.80 1.06 1.61 0.55 10.87 Salt Lake 1.17 0.67 1.58 1.41 0.13 0.70 1.82 1.50 Sanpete 5.35 2.98 5.56 2.00 3.7 2.51 3.89 2.45 Tooele 14.61	Region and					Year			
Box Elder 9.00 9.33 12.87 8.60 9.55 9.65 11.30 7.31 Cache 1.67 1.53 1.41 2.22 1.06 0.84 0.91 0.55 Davis 0.09 0.13 0.00 0.29 1.06 0.03 0.40 0.51 Rich 3.28 2.12 2.44 0.83 0.63 1.17 1.71 1.19 Summit 1.19 2.16 1.37 0.66 0.93 1.00 0.47 0.63 Weber 0.35 0.63 0.94 0.80 1.06 1.61 0.54 0.40 REGTONAL TOTALS 15.74 16.33 19.98 13.70 14.64 15.55 10.83 Central Region	-	1990	1991	1992	1993		1995	1996	1997
Box Elder 9.00 9.33 12.87 8.60 9.55 9.65 11.30 7.31 Cache 1.67 1.53 1.41 2.22 1.06 0.84 0.91 0.55 Davis 0.09 0.13 0.00 0.29 1.06 0.03 0.40 0.51 Rich 3.28 2.12 2.44 0.83 0.63 1.17 1.71 1.19 Summit 1.19 2.16 1.37 0.66 0.93 1.00 0.47 0.63 Weber 0.35 0.63 0.94 0.80 1.06 1.61 0.54 0.40 REGTONAL TOTALS 15.74 16.33 19.98 13.70 14.64 15.55 10.83 Central Region									
Cache 1.67 1.53 1.41 2.22 1.06 0.84 0.91 0.55 Davis 0.09 0.13 0.00 0.29 0.33 0.33 0.22 0.00 Morgan 0.15 0.36 0.85 0.29 1.06 0.03 0.40 0.51 Rich 3.28 2.12 2.44 0.83 0.63 1.17 1.71 1.19 Summit 1.19 2.16 1.37 0.66 0.93 1.00 0.47 0.87 Weber 0.35 0.59 0.94 0.80 1.61 0.54 0.40 REGIONAL TOTALS 15.74 16:33 19:38 13.70 14:64 14:64 15:55 10.83 Salt Lake 1.17 0.67 1.58 1.41 0.13 0.70 1.82 1.50 Sanpete 5.35 2.98 5.56 2.00 3.77 0.62 0.79 Wester 0.51 1.79 0.88 0.22 2.31 2.76 8.14 9.09 Utah 10.50 <th>Northern Region</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Northern Region								
Davis 0.09 0.13 0.00 0.29 0.33 0.33 0.22 0.00 Morgan 0.15 0.36 0.85 0.29 1.06 0.03 0.40 0.51 Rich 3.28 2.12 2.44 0.83 0.63 1.17 1.71 1.71 Summit 1.19 2.16 1.37 0.66 0.93 1.00 0.47 0.87 Weber 0.35 0.69 0.94 0.80 1.06 1.61 0.54 0.40 FEGIGNAL FOTALS 15.74 16.33 19.88 13.70 14.64 15.55 10.83 Central Region Juab 5.15 6.16 6.88 6.19 5.72 3.65 2.76 4.23 Salt Lake 1.17 0.67 1.58 1.41 0.13 0.70 1.82 1.50 Sampete 5.35 2.98 5.56 2.00 3.57 2.51 3.89 2.45 Tooele 14.6	Box Elder	9.00	9.33	12.87	8.60	9.55	9.65	11.30	7.31
Morgan 0.15 0.36 0.85 0.29 1.06 0.03 0.40 0.51 Rich 3.28 2.12 2.44 0.83 0.63 1.17 1.71 1.19 Summit 1.19 2.16 1.37 0.66 0.93 1.00 1.07 0.47 0.83 Meber 0.35 0.69 0.94 0.80 1.06 1.61 0.54 0.40 REGIONAL TOTALS 15.74 16.33 19.88 13.70 14.64 14.64 15.55 10.83 Central Region	Cache	1.67	1.53			1.06	0.84	0.91	0.55
Rich 3.28 2.12 2.44 0.83 0.63 1.17 1.71 1.19 Summit 1.19 2.16 1.37 0.66 0.93 1.00 0.47 0.87 Weber 0.35 0.69 0.94 0.80 1.064 14.64 14.64 15.55 10.83 Central Region Juab 5.15 6.16 6.88 6.19 5.72 3.65 2.76 4.23 Salt Lake 1.17 0.67 1.58 1.41 0.13 0.70 1.82 1.50 Sanpete 5.35 2.98 5.56 2.00 3.57 2.51 3.89 2.45 Tooele 14.61 8.35 17.65 7.73 8.50 10.05 9.19 5.77 Wasatch 0.86 1.39 0.92 0.58 0.23 1.77 0.62 0.79 Beaver 0.51 1.79 0.88 0.22 2.31 2.78 0.40 0.55 Garfield 1.54 0.27 0.45 0.46 0.86 1.21 0.58	Davis	0.09				0.33		0.22	0.00
Summit 1.19 2.16 1.37 0.66 0.93 1.00 0.47 0.87 Weber 0.35 0.69 0.94 0.80 1.06 1.61 0.54 0.40 REGIONAL TOTALS 15.74 16.33 19.88 13.70 14.64 14.64 15.55 10.83 Central Region Juab 5.15 6.16 6.88 6.19 5.72 3.65 2.76 4.23 Salt Lake 1.17 0.67 1.58 1.41 0.13 0.70 1.82 1.50 Sanpete 5.35 2.98 5.56 2.00 3.57 2.51 3.89 2.45 Tooele 14.61 18.35 17.65 17.38 13.39 12.76 8.14 9.09 Utah 0.50 8.43 9.06 7.73 8.50 10.05 5.19 5.77 Wesatch 0.86 1.39 0.92 0.58 0.23 1.77 0.62 0.79 REGIONIL TOTALS 37.63 37.98 41.65 35.29 31.54 31.45	—		0.36	0.85		1.06	0.03	0.40	0.51
Weber 0.35 0.69 0.94 0.80 1.06 1.61 0.54 0.40 REGIONAL TOTALS 15.74 16.33 19.88 13.70 14.64 14.64 15.55 10.83 Central Region Juab 5.15 6.16 6.88 6.19 5.72 3.65 2.76 4.23 Sanpete 5.35 2.98 5.56 2.00 3.57 2.51 3.89 2.45 Tooele 14.61 18.35 17.65 17.38 13.39 12.76 8.14 9.09 Utah 10.50 8.43 9.06 7.73 8.50 10.05 9.19 5.77 Wasatch 0.86 1.39 0.92 0.58 0.23 1.77 0.62 0.79 Regional Beaver 0.51 1.79 0.88 0.22 2.31 2.75 1.96 0.32 Kane 1.36 1.91 0.73 1.10 1.45 0.27 1.98 1.88 2.92 2.21 4.39 4.86 2.28 3.96 4.19 3.145	Rich	3.28		2.44		0.63	1.17	1.71	1.19
REGIONAL TOTALS 15.74 16.33 19.88 13.70 14.64 14.64 15.55 10.83 Central Region Juab 5.15 6.16 6.88 6.19 5.72 3.65 2.76 4.23 Salt Lake 1.17 0.67 1.58 1.41 0.13 0.70 1.82 1.50 Sanpete 5.35 2.98 5.56 2.00 3.57 2.51 3.89 2.45 Tooele 14.61 18.35 17.65 17.38 13.39 12.76 8.14 9.09 Utah 0.50 8.43 9.06 7.73 8.50 10.05 9.19 5.77 Wasatch 0.86 1.39 0.92 0.58 0.23 1.77 0.62 0.79 Regional 1.54 0.27 0.45 0.46 0.86 1.21 0.58 0.63 Iron 2.27 1.30 1.54 1.93 2.02 2.75 1.96 0.32 <th>Summit</th> <th></th> <th>2.16</th> <th>1.37</th> <th>0.66</th> <th>0.93</th> <th>1.00</th> <th>0.47</th> <th>0.87</th>	Summit		2.16	1.37	0.66	0.93	1.00	0.47	0.87
Central Region Juab 5.15 6.16 6.88 6.19 5.72 3.65 2.76 4.23 Salt Lake 1.17 0.67 1.58 1.41 0.13 0.70 1.82 1.50 Sanpete 5.35 2.98 5.56 2.00 3.57 2.51 3.89 2.45 Tooele 14.61 18.35 17.65 17.38 13.39 12.76 8.14 9.09 Utah 0.50 8.43 9.06 7.73 8.50 10.05 9.19 5.77 Wasatch 0.86 1.39 0.92 0.58 0.23 1.77 0.62 0.79 REGTONAL TOTALS 37.63 37.98 41.65 35.29 31.54 31.45 26.41 23.83 Southern Region 1.179 0.488 0.22 2.31 2.78 0.40 0.55 Garfield 1.54 0.27 0.36 1.19 1.54 1.93 2.02 2.75 1.96 0.32 Kane 1.36 1.91 0.73 1.10 <th>Weber</th> <th></th> <th>· · · · · · · · · · · · · · · · · · ·</th> <th></th> <th>1000</th> <th>10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</th> <th>205 Mart 10 11 . 291 94: 2 70</th> <th>the for the second second second</th> <th></th>	Weber		· · · · · · · · · · · · · · · · · · ·		1000	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	205 Mart 10 11 . 291 94: 2 70	the for the second second second	
Juab 5.15 6.16 6.88 6.19 5.72 3.65 2.76 4.23 Salt Lake 1.17 0.67 1.58 1.41 0.13 0.70 1.82 1.50 Sanpete 5.35 2.98 5.56 2.00 3.57 2.51 3.89 2.45 Tooele 14.61 18.35 17.75 17.38 13.39 12.76 8.14 9.09 Utah 10.50 8.43 9.06 7.73 8.50 10.05 9.19 5.77 Wasatch 0.86 1.39 0.92 0.58 0.23 1.77 0.62 0.79 RBGIQNAL TOTALS 37.63 37.96 41.65 35.29 31.54 31.45 26.41 23.83 Southern Region	REGIONAL TOTALS	15.74	16.33	19.88	13.70	14.64	14.64	15-55	10.83
Juab 5.15 6.16 6.88 6.19 5.72 3.65 2.76 4.23 Salt Lake 1.17 0.67 1.58 1.41 0.13 0.70 1.82 1.50 Sanpete 5.35 2.98 5.56 2.00 3.57 2.51 3.89 2.45 Tooele 14.61 18.35 17.75 17.38 13.39 12.76 8.14 9.09 Utah 10.50 8.43 9.06 7.73 8.50 10.05 9.19 5.77 Wasatch 0.86 1.39 0.92 0.58 0.23 1.77 0.62 0.79 RBGIQNAL TOTALS 37.63 37.96 41.65 35.29 31.54 31.45 26.41 23.83 Southern Region									
Salt Lake 1.17 0.67 1.58 1.41 0.13 0.70 1.82 1.50 Sanpete 5.35 2.98 5.56 2.00 3.57 2.51 3.89 2.45 Tooele 14.61 18.35 17.65 17.38 13.39 12.76 8.14 9.09 Utah 10.50 8.43 9.06 7.73 8.50 10.05 9.19 5.77 Wasatch 0.86 1.39 0.92 0.58 0.23 1.77 0.62 0.79 REGIONAL TOTALS 37.63 37.96 41.65 35.29 31.54 31.45 26.41 23.83 Southem Region	Central Region								
Sanpete 5.35 2.98 5.56 2.00 3.57 2.51 3.89 2.45 Tooele 14.61 18.35 17.65 17.38 13.39 12.76 8.14 9.09 Utah 10.50 8.43 9.06 7.73 8.50 10.05 9.19 5.77 Wasatch 0.86 1.39 0.92 0.58 0.23 1.77 0.62 0.79 REGIONAL TOTALS 37.63 37.98 41.65 35.29 31.54 31.45 26.41 23.83 Southern Region Beaver 0.51 1.79 0.48 0.22 2.31 2.78 0.40 0.55 Garfield 1.54 0.27 0.45 0.46 0.86 1.21 0.58 0.63 Iron 2.27 1.30 1.54 1.93 2.02 2.75 1.96 0.32 Kane 1.36 1.91 0.73 1.10 1.45 0.27 0.36 1.19 Millard 3.72 4.92 5.21 4.39 4.86 <t< th=""><th>Juab</th><th>5.15</th><th></th><th>6.88</th><th>6.19</th><th>5.72</th><th>3.65</th><th>2.76</th><th>4.23</th></t<>	Juab	5.15		6.88	6.19	5.72	3.65	2.76	4.23
Tooele 14.61 18.35 17.65 17.38 13.39 12.76 8.14 9.09 Utah 10.50 8.43 9.06 7.73 8.50 10.05 9.19 5.77 Wasatch 0.86 1.39 0.92 0.58 0.23 1.77 0.62 0.79 REGIONAL TOTALS 37.63 37.98 41.65 35.29 31.54 31.45 26.41 23.83 Southem Region Beaver 0.51 1.79 0.88 0.22 2.31 2.78 0.40 0.55 Garfield 1.54 0.27 0.45 0.46 0.86 1.21 0.58 0.63 Iron 2.27 1.30 1.54 1.93 2.02 2.75 1.96 0.32 Kane 1.36 1.91 0.73 1.10 1.45 0.27 0.36 1.19 Millard 3.72 4.92 5.21 4.39 4.86 2.28 3.96 4.19 Piute 0.62 0.15 0.04 0.19 0.30 0.17 0.15	Salt Lake	1.17	0.67	1.58			0.70	1.82	1.50
Utah 10.50 8.43 9.06 7.73 8.50 10.05 9.19 5.77 Wasatch 0.86 1.39 0.92 0.58 0.23 1.77 0.62 0.79 REGIONAL TOTALS 37.63 37.98 41.65 35.29 31.54 31.45 26.41 23.83 Southern Region	—	5.35	2.98				2.51	3.89	
Wasatch 0.86 1.39 0.92 0.58 0.23 1.77 0.62 0.79 REGIONAL TOTALS 37.63 37.99 41.65 35.29 31.54 31.45 26.41 23.83 Southern Region Beaver 0.51 1.79 0.88 0.22 2.31 2.78 0.40 0.55 Garfield 1.54 0.27 0.45 0.46 0.86 1.21 0.58 0.63 Iron 2.27 1.30 1.54 1.93 2.02 2.75 1.96 0.32 Kane 1.36 1.91 0.73 1.10 1.45 0.27 0.36 1.19 Millard 3.72 4.92 5.21 4.39 4.86 2.28 3.96 4.19 Piute 0.62 0.15 0.04 0.19 0.30 0.17 0.15 0.08 Servier 2.88 3.61 1.99 2.71 2.98 1.88 5.09 2.89 Washington 3.10 2.67 1.28 5.63 5.49 6.10 2.54			18.35	17.65				8.14	
REGIONAL TOTALS 37.63 37.98 41.65 35.29 31.54 31.45 26.41 23.83 Southern Region Beaver 0.51 1.79 0.88 0.22 2.31 2.78 0.40 0.55 Garfield 1.54 0.27 0.45 0.46 0.86 1.21 0.58 0.63 Iron 2.27 1.30 1.54 1.93 2.02 2.75 1.96 0.32 Kane 1.36 1.91 0.73 1.10 1.45 0.27 0.36 1.19 Millard 3.72 4.92 5.21 4.39 4.86 2.28 3.96 4.19 Piute 0.62 0.15 0.04 0.19 0.30 0.17 0.15 0.08 Sevier 2.88 3.61 1.99 2.71 2.98 1.88 5.09 2.89 Washington 3.10 2.67 1.28 5.63 5.49 6.10 2.54 3.64	+						10.05		
Southern Region Beaver 0.51 1.79 0.88 0.22 2.31 2.78 0.40 0.55 Garfield 1.54 0.27 0.45 0.46 0.86 1.21 0.58 0.63 Iron 2.27 1.30 1.54 1.93 2.02 2.75 1.96 0.32 Kane 1.36 1.91 0.73 1.10 1.45 0.27 0.36 1.19 Millard 3.72 4.92 5.21 4.39 4.86 2.28 3.96 4.19 Piute 0.62 0.15 0.04 0.19 0.30 0.17 0.15 0.08 Sevier 2.88 3.61 1.99 2.71 2.98 1.88 5.09 2.89 Washington 3.10 2.67 1.28 5.63 5.49 6.10 2.54 3.64 Wayne 1.10 1.26 0.58 0.80 1.09 0.54 0.73 0.75 RECIÓNAL TOTALS 17.10 17.89 12.70 17.43 21.36 17.95 </th <th></th> <th></th> <th></th> <th>and a second /th> <th>energia and a state of the second state of the</th> <th>CONTRACT PROPERTY AND A REAL MEMORY AND A REAL PROPERTY AND A REAL</th> <th>ana ita ana manakarata na marata</th> <th>والرقاف والمتعر وارجالت مرتجع والمرور والرار الأمر الركان</th> <th>The second s</th>				and a second	energia and a state of the second state of the	CONTRACT PROPERTY AND A REAL MEMORY AND A REAL PROPERTY AND A REAL	ana ita ana manakarata na marata	والرقاف والمتعر وارجالت مرتجع والمرور والرار الأمر الركان	The second s
Beaver 0.51 1.79 0.88 0.22 2.31 2.78 0.40 0.55 Garfield 1.54 0.27 0.45 0.46 0.86 1.21 0.58 0.63 Iron 2.27 1.30 1.54 1.93 2.02 2.75 1.96 0.32 Kane 1.36 1.91 0.73 1.10 1.45 0.27 0.36 1.19 Millard 3.72 4.92 5.21 4.39 4.86 2.28 3.96 4.19 Piute 0.62 0.15 0.04 0.19 0.30 0.17 0.15 0.08 Sevier 2.88 3.61 1.99 2.71 2.98 1.8 5.09 2.89 Washington 3.10 2.67 1.28 5.63 5.49 6.10 2.54 3.64 Wayne 1.10 1.26 0.58 0.80 1.09 0.54 0.73 0.75 RECIONAL TOTALS 17.10 17.89 12.70 17.43 21.36 17.95 15.76 14.23 <tr< th=""><th>REGIONAL TOTALS</th><th>37.63</th><th>37.98</th><th>41.65</th><th>35.29</th><th>31.54</th><th>31.45</th><th>26.41</th><th>23.83</th></tr<>	REGIONAL TOTALS	37.63	37.98	41.65	35.29	31.54	31.45	26.41	23.83
Beaver 0.51 1.79 0.88 0.22 2.31 2.78 0.40 0.55 Garfield 1.54 0.27 0.45 0.46 0.86 1.21 0.58 0.63 Iron 2.27 1.30 1.54 1.93 2.02 2.75 1.96 0.32 Kane 1.36 1.91 0.73 1.10 1.45 0.27 0.36 1.19 Millard 3.72 4.92 5.21 4.39 4.86 2.28 3.96 4.19 Piute 0.62 0.15 0.04 0.19 0.30 0.17 0.15 0.08 Sevier 2.88 3.61 1.99 2.71 2.98 1.8 5.09 2.89 Washington 3.10 2.67 1.28 5.63 5.49 6.10 2.54 3.64 Wayne 1.10 1.26 0.58 0.80 1.09 0.54 0.73 0.75 RECIONAL TOTALS 17.10 17.89 12.70 17.43 21.36 17.95 15.76 14.23 <tr< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr<>									
Garfield 1.54 0.27 0.45 0.46 0.86 1.21 0.58 0.63 Iron 2.27 1.30 1.54 1.93 2.02 2.75 1.96 0.32 Kane 1.36 1.91 0.73 1.10 1.45 0.27 0.36 1.19 Millard 3.72 4.92 5.21 4.39 4.86 2.28 3.96 4.19 Piute 0.62 0.15 0.04 0.19 0.30 0.17 0.15 0.08 Sevier 2.88 3.61 1.99 2.71 2.98 1.88 5.09 2.89 Washington 3.10 2.67 1.28 5.63 5.49 6.10 2.54 3.64 Wayne 1.10 1.26 0.58 0.80 1.09 0.54 0.73 0.75 REGIONAL FOTALS 19.10 17.89 12.70 17.43 21.36 17.95 15.76 14.23 Northeastern Region									
Iron 2.27 1.30 1.54 1.93 2.02 2.75 1.96 0.32 Kane 1.36 1.91 0.73 1.10 1.45 0.27 0.36 1.19 Millard 3.72 4.92 5.21 4.39 4.86 2.28 3.96 4.19 Piute 0.62 0.15 0.04 0.19 0.30 0.17 0.15 0.08 Sevier 2.88 3.61 1.99 2.71 2.98 1.88 5.09 2.89 Washington 3.10 2.67 1.28 5.63 5.49 6.10 2.54 3.64 Wayne 1.10 1.26 0.58 0.80 1.09 0.54 0.73 0.75 REGIONAL TOPALS 17.10 17.89 12.70 17.43 21.36 17.95 15.76 14.23 Northeastern Region									
Kane 1.36 1.91 0.73 1.10 1.45 0.27 0.36 1.19 Millard 3.72 4.92 5.21 4.39 4.86 2.28 3.96 4.19 Piute 0.62 0.15 0.04 0.19 0.30 0.17 0.15 0.08 Sevier 2.88 3.61 1.99 2.71 2.98 1.88 5.09 2.89 Washington 3.10 2.67 1.28 5.63 5.49 6.10 2.54 3.64 Wayne 1.10 1.26 0.58 0.80 1.09 0.54 0.73 0.75 RECIONAL TOTALS 17.10 17.89 12.70 17.43 21.36 17.95 15.76 14.23 Northeastern Region									
Millard 3.72 4.92 5.21 4.39 4.86 2.28 3.96 4.19 Piute 0.62 0.15 0.04 0.19 0.30 0.17 0.15 0.08 Sevier 2.88 3.61 1.99 2.71 2.98 1.88 5.09 2.89 Washington 3.10 2.67 1.28 5.63 5.49 6.10 2.54 3.64 Wayne 1.10 1.26 0.58 0.80 1.09 0.54 0.73 0.75 RECIONAL TOTALS 17.10 17.89 12.70 17.43 21.36 17.95 15.76 14.23 Northeastem Region Duchesne 6.36 6.87 6.22 9.26 3.64 8.44 11.33 10.71 Uintah 7.55 7.61 5.88 8.31 6.64 9.01 10.72 18.97 REGIONAL TOTALS 15.71 16.90 13.25 19.33 10.98 17.82 22.88 31.94 Southeastem Region Carbon 5.55 3.89 5.66 5.02									
Piute 0.62 0.15 0.04 0.19 0.30 0.17 0.15 0.08 Sevier 2.88 3.61 1.99 2.71 2.98 1.88 5.09 2.89 Washington 3.10 2.67 1.28 5.63 5.49 6.10 2.54 3.64 Wayne 1.10 1.26 0.58 0.80 1.09 0.54 0.73 0.75 RECIONAL TOTALS 17.10 17.89 12.70 17.43 21.36 17.95 15.76 14.23 Northeastern Region Daggett 1.80 2.42 1.15 1.75 0.69 0.37 0.84 2.25 Duchesne 6.36 6.87 6.22 9.26 3.64 8.44 11.33 10.71 Uintah 7.55 7.61 5.88 8.31 6.64 9.01 10.72 18.97 REGIONAL TOTALS 15.71 16.90 13.25 19.33 10.98 17.82 22.88 31.94 Southeastern Region									
Sevier 2.88 3.61 1.99 2.71 2.98 1.88 5.09 2.89 Washington 3.10 2.67 1.28 5.63 5.49 6.10 2.54 3.64 Wayne 1.10 1.26 0.58 0.80 1.09 0.54 0.73 0.75 RECIONAL TOTALS 17.10 17.89 12.70 17.43 21.36 17.95 15.76 14.23 Northeastem Region									
Washington 3.10 2.67 1.28 5.63 5.49 6.10 2.54 3.64 Wayne 1.10 1.26 0.58 0.80 1.09 0.54 0.73 0.75 RECIONAL TOTALS 17.10 17.89 12.70 17.43 21.36 17.95 15.76 14.23 Northeastem Region Daggett 1.80 2.42 1.15 1.75 0.69 0.37 0.84 2.25 Duchesne 6.36 6.87 6.22 9.26 3.64 8.44 11.33 10.71 Uintah 7.55 7.61 5.88 8.31 6.64 9.01 10.72 18.97 REGIONAL TOTALS 15.71 16.90 13.25 19.33 10.98 17.82 22.88 31.94 Southeastem Region Carbon 5.55 3.89 5.66 5.02 10.28 5.96 6.54 6.25 Emery 5.39 4.25 4.08 3.95 4.13 4.66 5.38 5.85 Grand 0.57 0.50 0.62 1.19									
Wayne 1.10 1.26 0.58 0.80 1.09 0.54 0.73 0.75 RECIONAL TOTALS 17.10 17.89 12.70 17.43 21.36 17.95 15.76 14.23 Northeastem Region Daggett 1.80 2.42 1.15 1.75 0.69 0.37 0.84 2.25 Duchesne 6.36 6.87 6.22 9.26 3.64 8.44 11.33 10.71 Uintah 7.55 7.61 5.88 8.31 6.64 9.01 10.72 18.97 REGIONAL TOTALS 15.71 16.90 13.25 19.33 10.98 17.82 22.88 31.94 Southeastem Region Carbon 5.55 3.89 5.66 5.02 10.28 5.96 6.54 6.25 Emery 5.39 4.25 4.08 3.95 4.13 4.66 5.38 5.85 Grand 0.57 0.50 0.62 1.19 1.92 2.61 4.40 2.29 San Juan 2.31 2.27 2.01 2.44									
REGIONAL TOTALS 17.10 17.89 12.70 17.43 21.36 17.95 15.76 14.23 Northeastern Region Daggett 1.80 2.42 1.15 1.75 0.69 0.37 0.84 2.25 Duchesne 6.36 6.87 6.22 9.26 3.64 8.44 11.33 10.71 Uintah 7.55 7.61 5.88 8.31 6.64 9.01 10.72 18.97 REGIONAL TOTALS 15.71 16.90 13.25 19.33 10.98 17.82 22.88 31.94 Southeastern Region Carbon 5.55 3.89 5.66 5.02 10.28 5.96 6.54 6.25 Emery 5.39 4.25 4.08 3.95 4.13 4.66 5.38 5.85 Grand 0.57 0.50 0.62 1.19 1.92 2.61 4.40 2.29 San Juan 2.31 2.27 2.01 2.44 5.06 3.45 2.87 4.39 REGIONAL TOTALS 13.82 10.91 12.37	=								
Northeastern Region Daggett 1.80 2.42 1.15 1.75 0.69 0.37 0.84 2.25 Duchesne 6.36 6.87 6.22 9.26 3.64 8.44 11.33 10.71 Uintah 7.55 7.61 5.88 8.31 6.64 9.01 10.72 18.97 REGIONAL TOTALS 15.71 16.90 13.25 19.33 10.98 17.82 22.88 31.94 Southeastern Region									
Daggett 1.80 2.42 1.15 1.75 0.69 0.37 0.84 2.25 Duchesne 6.36 6.87 6.22 9.26 3.64 8.44 11.33 10.71 Uintah 7.55 7.61 5.88 8.31 6.64 9.01 10.72 18.97 REGIONAL TOTALS 15.71 16.90 13.25 19.33 10.98 17.82 22.88 31.94 Southeastern Region	REGIONAL TOTALS	17.10	L7.89	12.70	11.43	21.36	17.95	15.76	14.23
Daggett 1.80 2.42 1.15 1.75 0.69 0.37 0.84 2.25 Duchesne 6.36 6.87 6.22 9.26 3.64 8.44 11.33 10.71 Uintah 7.55 7.61 5.88 8.31 6.64 9.01 10.72 18.97 REGIONAL TOTALS 15.71 16.90 13.25 19.33 10.98 17.82 22.88 31.94 Southeastern Region	Northeastern Deal	ion							
Duchesne 6.36 6.87 6.22 9.26 3.64 8.44 11.33 10.71 Uintah 7.55 7.61 5.88 8.31 6.64 9.01 10.72 18.97 REGIONAL TOTALS 15.71 16.90 13.25 19.33 10.98 17.82 22.88 31.94 Southeastem Region Carbon 5.55 3.89 5.66 5.02 10.28 5.96 6.54 6.25 Emery 5.39 4.25 4.08 3.95 4.13 4.66 5.38 5.85 Grand 0.57 0.50 0.62 1.19 1.92 2.61 4.40 2.29 San Juan 2.31 2.27 2.01 2.44 5.06 3.45 2.87 4.39 REGIONAL TOTALS 13.82 10.91 12.37 12.60 21.39 16.68 19.18 18.77			0.40	1 1 5	1 75	0 60	0 27	0 04	2.25
Uintah7.557.615.888.316.649.0110.7218.97REGIONAL TOTALS15.7116.9013.2519.3310.9817.8222.8831.94Southeastem RegionCarbon5.553.895.665.0210.285.966.546.25Emery5.394.254.083.954.134.665.385.85Grand0.570.500.621.191.922.614.402.29San Juan2.312.272.012.445.063.452.874.39REGIONAL TOTALS13.8210.9112.3712.6021.3916.6819.1818.77									
REGIONAL TOTALS 15.71 16.90 13.25 19.33 10.98 17.82 22.88 31.94 Southeastem Region Carbon 5.55 3.89 5.66 5.02 10.28 5.96 6.54 6.25 Emery 5.39 4.25 4.08 3.95 4.13 4.66 5.38 5.85 Grand 0.57 0.50 0.62 1.19 1.92 2.61 4.40 2.29 San Juan 2.31 2.27 2.01 2.44 5.06 3.45 2.87 4.39 REGIONAL TOTALS 13.82 10.91 12.37 12.60 21.39 16.68 19.18 18.77									
Southeastem Region Carbon 5.55 3.89 5.66 5.02 10.28 5.96 6.54 6.25 Emery 5.39 4.25 4.08 3.95 4.13 4.66 5.38 5.85 Grand 0.57 0.50 0.62 1.19 1.92 2.61 4.40 2.29 San Juan 2.31 2.27 2.01 2.44 5.06 3.45 2.87 4.39 REGIONAL TOTALS 13 82 10.91 12.37 12.60 21.39 16.68 19.18 18.77		the second of the second s							1997 Carl 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Carbon 5.55 3.89 5.66 5.02 10.28 5.96 6.54 6.25 Emery 5.39 4.25 4.08 3.95 4.13 4.66 5.38 5.85 Grand 0.57 0.50 0.62 1.19 1.92 2.61 4.40 2.29 San Juan 2.31 2.27 2.01 2.44 5.06 3.45 2.87 4.39 REGIONAL TOTALS 13.82 10.91 12.37 12.60 21.39 16.68 19.18 18.77						a analysis of the state of the			
Carbon 5.55 3.89 5.66 5.02 10.28 5.96 6.54 6.25 Emery 5.39 4.25 4.08 3.95 4.13 4.66 5.38 5.85 Grand 0.57 0.50 0.62 1.19 1.92 2.61 4.40 2.29 San Juan 2.31 2.27 2.01 2.44 5.06 3.45 2.87 4.39 REGIONAL TOTALS 13.82 10.91 12.37 12.60 21.39 16.68 19.18 18.77	Southeastern Reg	ion							
Emery5.394.254.083.954.134.665.385.85Grand0.570.500.621.191.922.614.402.29San Juan2.312.272.012.445.063.452.874.39REGIONAL TOTALS138210.9112.3712.6021.3916.6819.1818.77	-		3 89	5 66	5 02	10 28	5 96	6 54	6.25
Grand 0.57 0.50 0.62 1.19 1.92 2.61 4.40 2.29 San Juan 2.31 2.27 2.01 2.44 5.06 3.45 2.87 4.39 REGIONAL TOTALS 13 82 10.91 12.37 12.60 21.39 16.68 19.18 18.77									
San Juan 2.31 2.27 2.01 2.44 5.06 3.45 2.87 4.39 REGIONAL TOTALS 13 82 10.91 12.37 12.60 21.39 16.68 19.18 18.77	-								
REGIONAL TOTALS 13.82 10.91 12.37 12.60 21.39 16.68 19.18 18.77									
			20	S. 200 M. J. A. M. S. P. P. S. S.		CARLEY 2 C. S. 1995 S. 181	CALLER & C. LOCAL S. M. March	198 See 6 March 19 19 19 19 19 19	5 5 5 6 8 8 8 8 9 5 5 5 5 5 5 A P A P A P A P A P A P A P
Unknown counties 0.00 0.00 0.15 1.66 0.10 1.47 0.22 0.40									
	Unknown counties	0.00	0.00	0.15	1.66	0.10	1.47	0.22	0.40
			. –						
STATE TOTALS 100.00 100.00 100.00 100.00 100.00 100.00 100.00	STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 8.	Statewide summary	y of cottontail rabbit harvest statistics,	1967-97.
		,	

	Total	Total			
Year	Hunters	Harvest		ottontails Per Hunter-Da	
1967	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
1978	35, 59 0	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
1982	26,714	156,696	105,644	1.48	5.87
1983	22, 4 67	180,767	96,151	1.88	8.05
1984	18,616	69,186	67,643	1.02	3.72
1985	14,059	31,397	48,371	0.65	2.23
1986	13,992	40,636	48,694	0.83	2.90
1987	20,322	110,411	77,047	1.43	5.43
1988	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
1991	21,137	111,407	82,772	1.35	5.27
1992	20,509	117,454	83,154	1.41	5.73
1993	17,578	64,400	77,968	0.83	3.66
1994	12,709	47,322	53,175	0.89	3.72
1995	13,840	67,295	58,042	1.16	4.86
1996	14,470	82,803	63,943	1.29	5.72
1997	12,263	61,109	52,587	1.16	4.98
Totals (1967-97)	708,499	4,433,107	2,912,502		
Averages (1967-96)	23,208	145,733	95,331	1.44	5.92

нŤ

			All Hunts				õ	Complete Hunts	S		
Region and County	Total Parties	Total Hunters	Total Hours	Total Rabbits	Rabbits/ 100 Hr	Complete Hunts	Total Hunters	Total Hours	Total Rabbits	Rabbits/ Hunter	Rabbits/ 100 Hr
Northern Region											
Box Elder	1	I	ł	I	1	I	ł	1	ł	1	ł
Cache	1	ł	ł	I	1	1	ł	1	I	I	ł
Davis	ł	ł	ł	ł	1	1	1	1	1	ł	I
Morgan	ł	ł	ł	ł	I	I	I	I	I	1	1
Rich	ł	ł	1	ł	ł	I	ł	1	ł	ł	1
Summit	1	ł	ł	ł	ł	I	1	I	I	ł	I
Weber	1	Ĩ	ł	1	1	I	ł	ł	ł	ļ	ł
REGIONAL TOTALS	1	1	1	1	I	1	1	I	1	1	1
Central Region											
Juab	ł	ł	ł	ł	•	1	ł	ł	1	I	ł
Salt Lake	ł	1	I	ł	•	1	ł	ł	ł	ł	ł
Sanpete	ł	ł	ł	I	1	ł	ł	ł	I	1	ł
Tooele	1	ł	ł	1		1	ł	I	1	ł	1
Utah	1	I	1	ł	1	1	ł	I	:	1	ł
Wasatch	ł	ł	ł	I	1	1	ł	ł	I	I	1
REGIONAL TOTALS	1	1	1	1	1	 		1	1	1	:
Southern Region	1	1	1	1	1	1	I	1	1	1	1
Beaver	ł	ł	I	ł	ł	1	1	ł	ł	1	I
Garfield	1	1	1	ł	1	1	ł	I	ł	1	1
Iron	1	I	:	I	:	1	1	1	1	ł	1
Kane	ł	I	I	ł	1	1	1	1	I	ł	1
Millard	1	ł	I	ł		ł	ł	I	I	I	ł
Piute	ł	ł	1	ł	:	1	ł	ł	I	ł	1
Sevier	3	1	ł	I	1	1	ł	ł	I	ł	ł
Washington	1	ł	ł	ł		ł	1	1	1	ł	ł
Wayne	1	1	1	1	1	1	1	I	I	1	1
REGIONAL TOTALS	1	ł	1	1	1	1	1	ł	1	1	ł
Northeastern Region	1	ł	ł	1	1]	1	1	1	ł	1
Daggett	1	1	:	ł	•	1	ł	ł	I	1	t
Duchesne	I	1	I	ł	1	1	ł	I	I	1	ł
Uintah	I	I	I	1	1	ľ	1	1	I	I	1
REGIONAL TOTALS	1	1	1	I	l	1	I	1	1	ł	1
Southeastern Region	I	1	1	1	1	1	1	1	I	I	1
Carbon	1	ł	1	I	1	1	1	I	I	ł	ł
Emery	1	ł	1	I	ł	1	ł	1	1	1	1
Grand	ł	ł	1	I	:	1	ł	I	ł	I	ł
San Juan	1	ł	1	I		-	1	1	ł	1	I
REGIONAL TOTALS	1	1	I	1	ľ	1	1	ł	1	ł	1
								l	1		

Ì

Ì

ľ

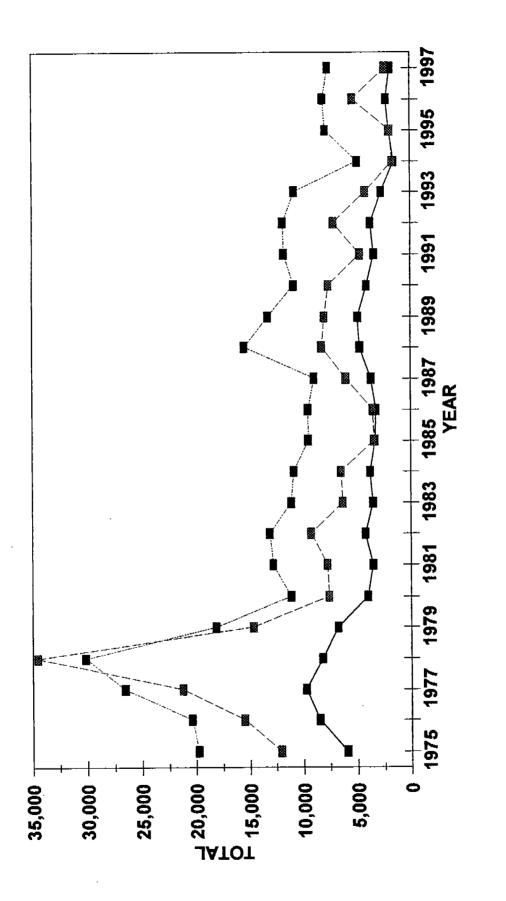
Ĩ

ļ

Ĩ

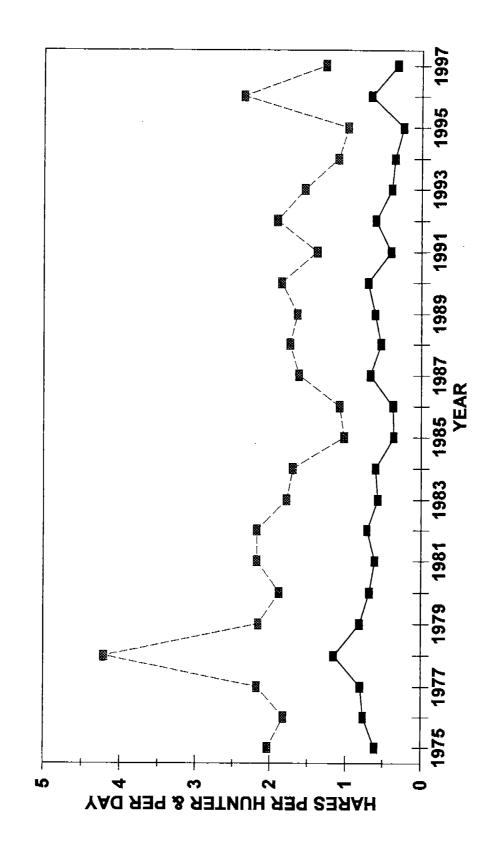
Skill Rabbits/ Interval (abbits/ Interval) Rabbits/ (abbits/ Interval) Rabits/ (abbits/ Interval) Rabbits/ (ab		1992		1993		1994		1995		1996		1997	
	Region and County	Rabbits/ Hunter	Rabbits/ 100 Hr	Rabbits/ Hunter	Rabbits/ 100 Hr	Rabbits/ Hunter	Rabbits/ 100 Hr	Rabbits/ Hunter	Rabbits/	Rabbits/		Rabbits/	Rabbits/
	orthern Region							Induce					
ML TOTALS	lox Elder	I	I	ł	I	ł	ł	ł	1	I	1	ł	1
Number of the sector	lache	ł	I	1	I	ł	ł	ł	1	1	1	ł	1
	avis	I	I	ł	ł	I	I	ł	;	ł	1	ł	I
	lorgan	I	1	I	1	1	I	I	ł	1	I	1	:
Multionals	ich	ł	I	I	;	ł	I	1	ł	I	1	I	1
M.I. TOTALS	ummit	1	1	1	1	ł	ł	ł	ł	I	1	: 1	1
ML TOTALS	feber	ł	;	ł	1	1	1	1	1	1			1
Region - <td>EGIONAL TOTALS</td> <td></td> <td></td> <td>1</td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>I</td> <td>1</td>	EGIONAL TOTALS			1	1							I	1
	entral Region											1	J
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	uab Č	;	I	ł	ł	ł	1	1	ł	.1	1	I	1
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	alt Lake	ł	ł	I	ł	1	I	1	I	ł	1	1	1
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	anpete	ı	1	ł	1	I	ł	ł	ł	ł	1	1	1
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	ooele	ł	ł	I	ł	1	1	1	ł	I	1	I	ł
$ \begin{array}{l l l l l l l l l l l l l l l l l l l $	tah	1	1	1	ł	ł	ł	ł	ł	ł	t	1	1
IM. TOTALS I <thi< td=""><td>asatch</td><td>1</td><td>1</td><td>1</td><td>1</td><td>ł</td><td>1</td><td>1</td><td>ł</td><td>1</td><td>I</td><td>I</td><td>1</td></thi<>	asatch	1	1	1	1	ł	1	1	ł	1	I	I	1
	EGIONAL TOTALS	1	I	I	1	1	I	1	I	1	1	1	1
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	outhern Region			1	I	1	1	I	I	1	I	1	1
Image: constraint of the	eaver	1	1	1	ł	I	I	T	1	1	I	1	I
Image: constraint of the	arfiekd	1	I	ł	1	ł	I	ł	1	ı	1	1	1
	ž	1	1	ł	ł	I	I	I	I	t	1	ł	1
Interface Interface <t< td=""><td>ane</td><td>I</td><td>I</td><td>1</td><td>ł</td><td>ł</td><td>ł</td><td>ł</td><td>1</td><td>i</td><td>1</td><td>I</td><td>I</td></t<>	ane	I	I	1	ł	ł	ł	ł	1	i	1	I	I
Image: second	llard	1	1	ł	ł	ł	1	1	ł	ł	1	ł	I
glon I	ute	1	I	I	1	ł	1	ŧ	1	ł	1	I	1
glon -	yver	1	I	ł	ł	I	1	1	I	1	I	ł	ł
AL TOTALS I	ashington	1	I	1	1	I	ł	ł	I	ı	I	I	I
MAL TOTALS r	ayne	1	1	1	:	I	ł	:	1	I	1	1	1
astern Region tt 1.25 50 1 1.25 50 1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	EGIONAL TOTALS	1	I	I	8	1	1	1]	1	1	I	1
III 1.25 50 1 </td <td>ortheastern Region</td> <td></td> <td>i</td> <td>I</td> <td>ł</td> <td>1</td> <td>ł</td> <td>I</td> <td>1</td> <td>ł</td> <td>1</td> <td>ł</td> <td>t</td>	ortheastern Region		i	I	ł	1	ł	I	1	ł	1	ł	t
She I I I I I NAL TOTALS I.25 50 I I I instem Region I.25 50 I I I instem Region I I I I I instem Region I I </td <td>iggett</td> <td>1.25</td> <td>20</td> <td>l</td> <td>I</td> <td>1</td> <td>I</td> <td>1</td> <td>I</td> <td>I</td> <td>1</td> <td>ł</td> <td>1</td>	iggett	1.25	20	l	I	1	I	1	I	I	1	ł	1
NAL TOTALS 1.25 50 1	Ichesne	1	ı	I	1	1	1	I	1	1	ı	ł	I
NAL TOTALS 1.25 50 - - - - - - - - - - - - - - - - 1 1 1 astern Region -	ntah	1	1	1	I	1	1	1	1	1	1	ł	I
astem Region astem Region I I I I I I I I I I I I I I I I I I	EGIONAL TOTALS	1.25	22	1	1	1	1	ł	ł	1	I	1	1
	outheastern Region			ł	1	ł	ł	ł	1	ł	1	1	1
I I I I I I I I I I I I I I I I I I I	arbon	I	I	1	I	I	ł	I	ı	ł	1	1	1
ALTOTALS I I I I I I I I I I I I I I I I I I I	nery	I	I	I	I	1	I	I	ł	1	I	I	ł
	rang	1	ł	I	ł	1	1	1	1	1	I	I	ſ
	IN JUAN	1	1	I	1	8	8	1	1	1	1	I	1
	EGIUNAL IUIALS	1	E	1	1	1	I	ł	1	I	ł	1	1





----■---- Hunter-Days Afield

Figure 2. Statewide trends of snowshoe hare hunter success rates, 1975-97.





SNOWSHOE HARE

Harvest

Results of the 1997 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 1997 season compared to 1996 and the previous 22-year average follow:

	<u>1997</u>	Percent change from 1996	Percent change from <u>Average</u>
Snowshoe hare hunters	1,912	-16	-57
Snowshoe hares harvested	2,431	-55	-73
Hunter-days afield	7,628	-6	-43
Snowshoes per hunter-day	0.32	-52	-47
Snowshoes per hunter	1.27	-46	-31

Results of the 1997 harvest questionnaire indicates a 55 percent decrease in the number of snowshoe hares harvested compared to 1996. Success was 73 percent below the long-term average.

Table 11.	Summary of snowshoe hare hunter success and distribution of harvest and
	hunting pressure by region and county, 1997.

REGION AND		HUNTER-DATS	SHOWSHOE	SHOWSHOE	* OF	5 5 07
COUNTY	STEE*	AFIELD	BAGGED	EUNTER-DAY		HARVEST
NORTHERN REGION						
BOX ELDER	9	540	457	0.85	7.08	18.81
CACHE	10	290	20	0.07	3.81	0.86
DAVIS	1	20	0	0.00	0.27	0.00
MORGAN	1	83	41	0.50	1.09	1.71
RICH	7	228	415	1.82	3.00	17.10
SUMMIT	4	249	4 1	0.17	3.27	1.71
WEBER	6	145	83	0.57	1.91	3.42
REGIONAL TOTALS	38	1,558	1,060	0.68	20.44	43.61
CENTRAL REGION						
JUAB	1	20	62	3.00	0.27	2.57
SALT LAKE	2	41	0	0.00	0.54	0.00
SANPETE	2	41	41	1.00	0.54	1.71
TOOÈLE	12	831	103	0.13	10,90	4.28
UTAH	12	1,371	145	0.11	17,98	5.99
WASATCH	3	228	62	0.27	3.00	2.57
REGIONAL TOTALS	32	2,535	415	0.16	33.24	17.10
SOUTHERN REGION						
BEAVER	1	83	540	6.50	1.09	22.23
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	3	353	41	0.12	4.63	1.71
PIUTE	0	0	0	0.00	0.00	0.00
SEVIER	5	311	62	0.20	4.09	2.57
WASHINGTON	0	0	0	0.00	0.00	0.00
WAYNE	2	83	0	0.00	1.09	0.00
REGIONAL TOTALS	11	831	644	0.78	10.90	26.51
NORTHEASTERN REGION	J					
DAGGETT	3	353	20	0.06	4.63	0.86
DUCHESNE	5	394	62	0.16	5.18	2.57
UINTAH	4	665	83	0.13	8.72	3.42
REGIONAL TOTALS	12	1,413	166	0.12	18.53	6.84
SOUTHEASTERN REGION	1					
CARBON	6	852	83	0.10	11.17	3.42
EMERY	5	332	41	0.13	4.36	1.71
GRAND	0	0	0	0.00	0.00	0.00
SAN JUAN	1	103	20	0.20	1.36	0.86
REGIONAL TOTALS	12	1,288	145	0.11	16.89	5.99
UNKNOWN	0	0	0	0.00	0.00	0.00
STATE TOTALS	105	7,628	2,431	0.32	100.00	100.00

*Total hunter trips from questionnaire returns.

ĺ

ļ

ł,

Table 12. Summary of snowshoe hare bagged per hunter-day by region and county, 1990-97.

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
Northern Region								
Box Elder	0.54	0.38	0.52	0.45	0.82	0.14	0.21	0.85
Cache	0.56	0.30	0.26	0.42	1.30	0.11	0.09	0.01
Davis	0.00	0.03	0.00	0.00	0.00	0.60	0.75	0.00
Morgan	0.80	2.17	0.15	0.00	0.47	0.00	1.88	1.50
Rich	0.76	1.31	1.15	0.38	1.21	0.21	1.00	1.8
Summit	1.05	0.24	0.62	0.18	0.39	0.23	0.75	0.1
Weber	0.25	0.25	1.00	1.12	0.28	0.91	0.00	0-5
REGIONAL TOTALS	D.70	0.49	0.54	0.48	0.77	0.38	0.38	0.6
Central Region								
Juab	0.53	0.50	0.38	0.00	0.64	0.15	1.14	3.0
Salt Lake	0.00	0.22	0.08	0.00	2.00	0.00	2.00	0.0
Sanpete	1.08	0.78	0.43	0.67	1.02	0.50	0.63	1.0
Tooele	0.32	0.35	0.58	0.25	0.70	0.38	0.05	0.1
Utah	0.51	0.71	0.79	0.08	0.46	0.10	0.35	0.1
Wasatch	0.17	0.22	0.48	8.67	1.57	0.04	0.11	0.2
REGIONAL TOTALS	0.55	0.45	0.55	0.44	0.67	0.21	0.35	0.1
Southern Region								
Beaver	0.50	0.00	0.00	0.00	1.50	0.05	0.00	6.5
Garfield	0.67	1.00	0.00	0.00	1.04	0.00	0.00	0.0
Iron	0.00	0.00	0.67	0.00	1.05	0.00	0.00	0.0
Kane	0.00	0.00	0.20	0.00	0.91	0.00	0.00	0.0
Millard	0.00	0.00	0.15	0.32	0.69	0.00	0.00	0.1
Piute	0.43	0.00	1.50	0.00	0.33	0.00	3.21	0.0
Sevier	0.96	0.61	0.78	0.44	0.67	0.00	0.00	0.2
Washington	0.00	0.00	0.00	0.00	1.01	0.00	0.00	0.0
Wayne	0.39	0.44	1.25	0.25	1.06	0.00	0.00	0.0
REGIONAL . TOTALS	0.62	0.56	0.70	0.30	0.93	0.02	3.03	0.7
Northeastern Regi	on							
Daggett	0.50	0.14	1.00	0.43	1,52	0.00	3.00	0.0
Duchesne	1.33	0.18	0.23	0.22	1.43	0.12	0.35	0.1
Uintah	0.88	0.14	1.62	0.15	1.55	0.33	0.41	0.1
REGIONAL TOTALS		0.17	0.79		1.51	0.24	0.44	0.1
Southeastern Regi	on							
Carbon	0.71	0.21	0.63	0.29	0.89	0.00	1.67	0.1
Emery	0.37	0.45	0.33	0.60	0.90	0.33	0.70	0.1
Grand	2.00	0.00	0.00	0.00	1.21	0.00	0.00	0.0
San Juan	0.00	0.00	1.00	0.00	0,97	0.00	0.00	0.2
REGIONAL TOTALS	0.56	0.30	0.46			0.20	0.92	
Unknown counties	0.00	0.00	0.00	3.60	0.00	0.00	0.00	0.0
STATE TOTALS	0.70	0.40	0.60	0.39	0.35	0.24	0.66	0.3

19

ľ

Table 13. Percentage distribution of snowshoe hare harvest by region and county, 1990-97.

Region and					Year			
County	1990	1991	1992	1993	1994	1995	1996	1991
Northern Region								
Box Elder	6.62	14.43	10.76	9.55	35.73	5.05	6.49	18.8
Cache	4.78	2.49	4.93	1.09	0.00	2.02	0.40	0.8
Davis	0.37	0.00	0.00	0.33	0.00	3.03	1.30	0.0
Morgan	4.78	0.50	0.00	1.06	3.06	0.00	6.49	1.7
Rich	20.22	5.72	1.35	0.63	4.08	3.03	2.16	17.10
Summit	4.41	6.47	1.35	0.93	0.00	3.03	2.60	1.7
Weber	1.84	0.50	8.52	1.06		30.31	0.00	3.4
REGIONAL TOTALS					42.88		19.91	
Central Region								
Juab	1.47	3.23	0.00	5.72	1.02	4 04	3 46	2 5
Salt Lake	0.74	0.25	0.00	0.13	0.00	4.04	3.46	2.5
Sanpete	11.40	2.49	1.79	3.57	10.21		1.73	0.0
Tooele	8.83	7.21	8.07	13.39	2.04	15.15	2.16	1.7
Utah	5.52	11.44	2.24	8.50	2.04 9.19	12.12	0.43	4.2
Wasatch	3.68	2.99	23.32	0.23		6.06	10.82	5.9
REGIONAL TOTALS		27.61	35.43	31.54	4.08	1.01	0.87	2.5
				JI. 34	26.54	38.39	19.48	17.1
Southern Region								
Beaver	0.00	0.00	0.00	2.31	0.00	1.01	0.00	22.23
Garfield	1.10	0.00	0.00	0.86	1.02	0.00	0.00	0.00
Iron	0.00	0.50	0.00	2.02	0.00	0.00	0.00	0.00
Kane	0.00	0.25	0.00	1.45	0.00	0.00	0.00	0.00
Millard	0.00	1.24	4.48	4.86	0.00	0.00	0.00	1.71
Piute	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00
Sevier	10.30	5.22	3.14	2.98	5.10	0.00	45.89	2.57
Washington	0.00	0.00	0.00	5.49	1.02	0.00	0.00	0.00
Wayne	1.47	9.95	1.79	1.09	6.13	0.00	0.00	0.00
EGIONAL TOTALS	12.87	17.91	9.42	21.36~	13.27			26.5
Northeastern Regio	on							
Daggett	1.10	1.00	5.83	0.69	0.00	0.00	1.30	0.86
Duchesne	6.25	3.73	6.28	3.64	2.04	3.03	3.03	2.57
Uintah	1.84	16.92	4.93	6.64	4.08	10.10	5.20	3.42
EGIONAL TOTALS	9.19		17.04		.6.13	13.13		6.84
Southeastern Regi	on							
Carbon	1.47	1.24	1.79	10.28	11.23	0.00	2.16	3.42
Emery	1.84	1.24	1.35	4.13	0.00	1.01	⊿.⊥6 3.03	
Grand	0.00	0.00	0.00	1.92	0.00			1.71
San Juan	0.00	0.25	0.00	5,06	0.00	0.00	0.00	0.00
EGIONAL TOTALS	3.31	2.74		21.39		0.00	0.00	0.86
an a		· ·· ··					<u> </u>	5.99
nknown counties	0.00	0.00	8.07	0.10	0.00	0.00	0.00	0.00
TATE TOTALS	100 00 -							
TOTAD	TOOTOO	UU.UD 7	LUU . OO '	1111 00	100 00	100 00 .	100 00	100 00

STATE TOTALS

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, 1990-97.

*Region and _					Year			
County	1990	1991	1992	1993	1994	1995	1996	1997
-								
Northern Region								
Box Elder	5.64	13.69	7.11	16.67	9.35	31.07	8.62	7.08
Cache	6.46	6.37	5.71	4.59	0.36	4.68	6.30	3.81
Davis	0.19	4.59	0.00	0.35	0.71	1.23	1.15	0.27
Morgan	0.95	0.89	1.95	0.53	3.21	0.25	2.29	1.09
Rich	12.93	6.22	3.00	1.41	2.50	3.45	1.43	3.00
Summit	7.41	7.41	6.31	3.00	2.14	3.20	2.29	3.27
Weber	0.76	2.96	0.30	3.00	0.36	8.13	0.86	1.91
REGIONAL TOTALS	42.40	35.56	33.93	22.22	40.36	29.56	34.96	20.44
Central Region								
Juab	3.61	1.19	5.11	0.18	2.86	6.40	2.01	0.27
Salt Lake	0.00	1.33	1.95	5.47	0.00	1.23	0.57	0.54
Sanpete	4.56	5.93	3.45	1.06	4.29	7.39	2.29	0.54
Tooele	7.03	10.22	7.51	12.52	5.36	7.88	6.30	10.90
Utah	6.65	3.11	8.71	11.29	9.64	14.53	20.34	17.98
Wasatch	1.14	6,67	3.75	1,06	3.21	6.40	5.44	3.00
REGIONAL TOTALS	23.00	28.45	30.48	31:57	25.63	43.85	36.96	33224
Southern Region								
Beaver	0.38	0.30	0.00	0.00	0.00	5.42	0.00	1.09
Garfield	1.14	0.44	0.00	1.23	1.79	0.00	0.00	0.00
Iron	0.00	0.00	0.45	0.00	0.71	0.00	0.00	0.00
Kane	0.00	0.15	0.75	0.00	0.00	0.74	0.00	0.00
Millard	0.19	0.00	5.11	5.47	0.36	0.49	0.00	4.63
Piute	1.33	0.30	0.30	0.00	0.00	0.00	0.00	0.00 4.09
Sevier	5.13	6.82	4.05	2.82	4.29	3.70 0.00	9.46	4.09
Washington	0.00	0.00	0.00	0.00	3.57 3.57	0.00	0.00 0.57	1.09
Wayne	5.89	1.33	4.80 15.47	2.82 12.35	14.29		10.03	10.90
REGIONAL TOTALS	14.07	9.33		LLSS	19-43	Sector Sector		
Northcortom Bogi	<u></u>							
Northeastern Regi	0.76	3.26	0.60	5.29	0.00	0.00	0.29	4.63
Daggett			0.00 9.61	11.29	4.29	6.16	5.73	4.03 5.18
Duchesne Uintah	8.56 3.04	13.78 <u>5.19</u>	6.31	13.05	2.50	7.39	8.31	8.72
REGIONAL TOTALS		22.22	16 52	29 63	6.79	13.55	14.33	18.53
	a ya ana ani na sana kata kata kata kata kata kata kata kata							
Southeastern Regi	ion							
Carbon	2.66	2.81	1.20	2.47	11.79	0.00	0.86	11.17
Emery	5.13	1.63	2.25	0.88	1.43	0.74	2.87	4.36
Grand	0.38	0.00	0.00	0.00	0.00	0.49	0.00	0.00
San Juan	0.00	0.00	0.15	0.00	0.00	0.00	0.00	1.36
REGIONAL TOTALS	8.17			CONSISTENT AND A FILLER AND	13.21	1.23	A COMPANY AND A REAL PROPERTY AND A REAL PROPE	16.89
realization of the section of the se				and a subscription of the second states	ninistranistra tille di Landiana a Tila di	an e all'hannañ ankañ Saliñs	Cardedia (Si amin'n' fan 194 dae i Sangerganna a 'n	i trijipozianitik kölöndör
Unknown counties	0.00	0.00	0.00	0.88	0.00	0.49	0.00	0.00
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 15. Statewide summary of snowshoe hare harvest statistics, 1975-97.

₹¹¢.,

· : : }

Į

	Total	Total			
Year	Hunters	Harvest	Hunter-Days Afiel	Hares Per Hunter-Da	v Hares Per Hunte
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
1992	3,732	7,144	11,836	0.60	1.91
1993	2,755	4,237	10,774	0.39	1.54
1994	1,565	1,722	4,922	0.35	1.10
1995	1,983	1,924	7,891	0.24	0.97
1996	2,276	5,365	8,106	0.66	2.36
1997	1,912	2,431	7,628	0.32	1.27
Totals				0.04	
(1975-97)	100,103	199,709	304,248	_	_
Averages (1975-96)	4,463	8,967	13,483	0.60	1.83

APPENDICES

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 1996-97 winter weather was wetter and warmer than normal. Above average precipitation fell September through January. In November 1996 through January 1997 temperatures were above average. February precipitation and temperatures were below normal.

In the spring of 1997, March - July precipitation was above normal. Temperatures were above normal in March, May and June and below normal in April and July.
 Table 1. Comparison of 1997 monthly average temperatures (F) to the normal for each weather division and statewi

 Weather Division
 Jan
 Feb
 Mar
 Apr
 May
 Jun
 Jul
 Aug
 Sep
 Oct
 No
 Dec Annual

ł

Weather Division	Jan	Feb	Mar	Apr	May	un C	lu L	Bny	Sep	00	Nov	Dec	Aug Sep Oct Nov Dec Annual
No.1 Western									r				
Normal	26.0	32.5	39.6	47.3	56.5	66.0	74 3	70.4	62.0	103	37 C		0
1997	28.3	33.0	43.5	45.8	59.8	67.3	71.4	74.5	54 1	100 A G A	20.00	20. 14 20. 14	10.04 70.04
Departure (degrees)	2.3	0.5	9 O 7	-1.5	3.3	1.3	-2.9	2.4	5.1	-0.5	1.9	9.9 9.9	
No.2 Dixie													
Normal	38.8	44.1	49.2	56.6	65.7	75.6	81.7	79.4	71.9	609	48.0	30 K	50 2
1997	40.5	44.6	55.4	56.3	72.3	75.8	79.6	81.2	74.1	603	20.4	0.05	
Departure (degrees)	1.7	0.5	6.2	ю. 9	6.6	0.2	-2.1	1.8	2.2	9.9 9	2.7	0.4	1.6
No.3 North Central													
Normai	25.8	31.3	39.3	47.7	56.9	66.2	74.4	72.3	62.4	50.9	38.3	27 B	49.5
1997	29.5	31.9	43.8	46.2	60.8	67.9	72.6	74.5	65.2	50.7	40.1	26.2	50.8
Departure (degrees)	3.7	0.6	4.5	-1.5	3.9	1.7	4 .	2.2	2.8	9.7 9	1.8	- 1.6	1.3
No.4 South Central													
Normal	26.5	31.6	37.6	45.1	54.0	63.4	70.4	68.2	59.9	49.3	37.3	28.1	47.6
1997	28.1	30.1	41.9	42.8	57.1	63.3	68.1	67.7	61.0	47.9	38.6	27.2	47.8
Departure (degrees)	1.6	-7 -2	4.3	-2.3	3.1	.	-2.3	-0.5	÷.	4	1.3	6.0-	0.2
No.5 Northern Mountains													
Normai	20.9	24.7	31.7	40.6	49.6	58.2	65.6	63.6	54.9	44.7	32.5	22 B	47 F
1997	23.1	22.8	35.2	38.7	52.8	60.1	64.2	65.7	57.8	44.8	33.1	000	43 A
Departure (degrees)	2.2	-1.9	3.5	-1.9	3.2	1.9	4.1-	2.1	2.9	0.1	0.6	9.8 9	6.0
No.6 Uintah Basin													
Normal	16.7	24.0	36.3	46.8	56.2	65.3	72.2	69.8	60.2	48.3	34.0	20.5	45 A
1997	19.3	20.8	36.9	43.4	57,9	66.6	6.9.9	69.8	61.7	47.6	33.0	21.0	45.7
Departure (degrees)	2.6	-3.2	0.6	-3.4	1.7	1.3	-2.3	0.0	1.5		-1.0	0.5	
No.7 Southeast													
Normal	26.9	34.2	41.9	50.5	60,0	70.1	76.7	74.2	65.2	53.4	40.2	29.5	51.9
1997	29.6	33.7	46.1	48.3	63.5	71.4	75.6	74.1	67.3	52.8	40.4	30.3	52.8
Departure (degrees)	2.7	-0.5	4.2	-2.2	3.5	1.3	۲. ۲	Ģ.	2.1	9. 9	0.2	0.8	6 G
STATE AVERAGES													
Normal	25.9	31.8	39.4	47.8	57.0	66.4	73.6	71.4	62.4	51.1	38.3	27.9	49.4
1997	28.3	31.0	43.3	45.9	60.6	67.5	71.6	72.5	64.5	50,5	39.3	27,6	50.2
Departure (degrees)	2.4	9.9	3.9	-1.9	3.6	:	-2.0	1	2.1	9. 9	1	2 0 7	0.8
2													

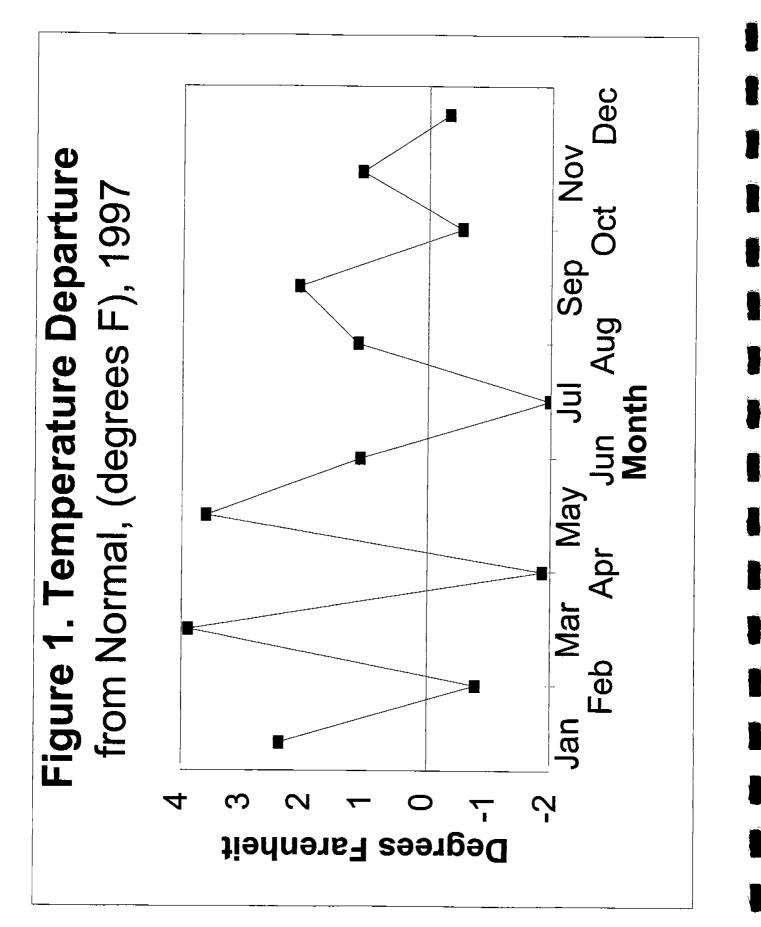
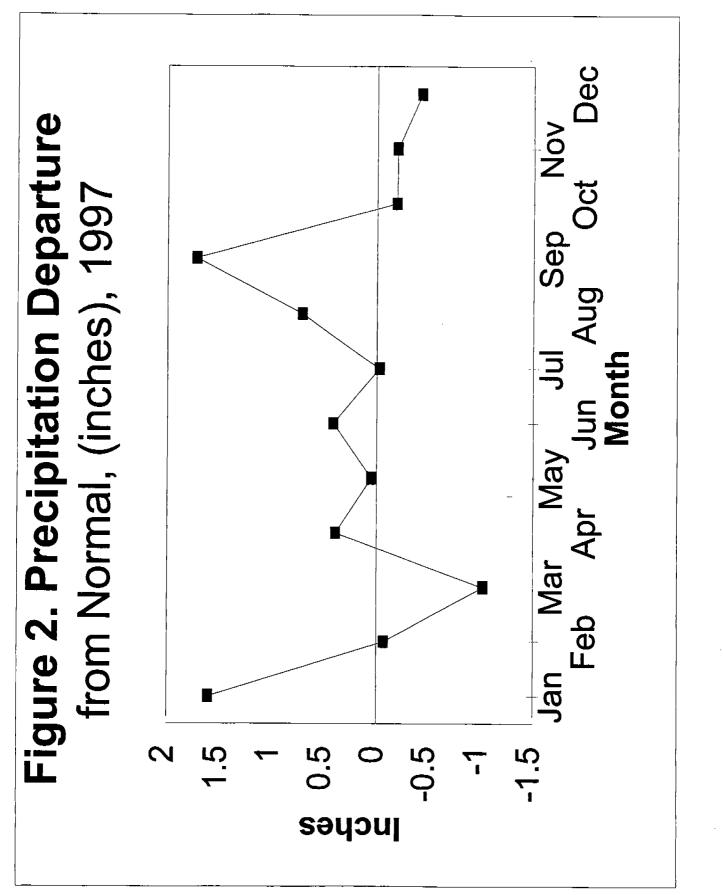


 Table 2. Comparison of 1997 monthly average precipitation to the normal for each weather division and statewide.

 Weather Division
 Jan
 Feb
 Mar
 Annual

Wasther Division	4				F								
	Jan		Mar	Apr	mar Apr may	unr	٦n	Aug	Sep	Oct	Νον	Nov Dec	Annual
No.1 Western													
Namel				1									
Normal	0.53	0.58		0.89	0.98	0.7	0.73	0.83	0.79	0.81		0.58	8 G.G.
1997	1.26	0.57	0.06	1.17	0.96	154	0 7 R	1 05			200		
Departure (inches)	0.73	-0.01		000	500	60.0						4 V V	
		2		07.0	20.02	0.0	0.00	0.22	LZ.L	-0.32		-0.34	1.83
No.2 Dixie													
Nemel													
	1.32	1.29		0.90	0.63	0.31	0.90	1.19	0,86	0.78	1.19	1.01	12,05
1997	3.52	0.68	0.10	0.52	0.47	0.16	0.57	1.75	3 40	0 42	1 05	0 53	12 16
Departure (Inches)	2 20	-0 A1		26	910							70.0	0.0
				02.0-	2	<u>.1</u> 2	-0.33	0.06	2.54	-0.36	-0.14	-0.49	1.11
No.3 North Central													
				•									
Normal	1.34	1.39	1.77	1.94	1.84	1,21	0.85	0.99	1.43	1.64	1.53	1.49	17.42
1997	3.42	1.45	0.72	2.09	2.05	1.83	1.30	1.42	1.90	1.73	1.09	1 30	20.20
Departure (inches)	2.08	0.06	-1.05	0.15	0.21	0 63	0.45	0.42	24.0				
•						12.2			ł	0.00	‡	-0.14	29.2
No.4 South Central													
Normal	00 0	1 01	1 7	201			ļ						
1007	0, 00); ; ;) n. l	0.98	0.60	1.07	1.38	1.18	1.05	1.07	1.02	12.78
	Z.62	1.12	0.18	1.64	1.01	1.16	0.81	2.50	3.83	0.78	0.92	0.58	17.15
Departure (inches)	1.64	0.11	-1.19	0.57	0.03	0.56	-0.26	1.12	2.65	-0.27	-0.15	-0.44	4.37
NU.5 NOTTHER MOUNTAINS													
Normai	1.83	1.78	1.93	1.95	1.68	1.19	1.04	1.19	1.52	1 69	1 83	1 0.7	10 KK
1997	4.56	1.40	0.64	2.40	1.87	196	0 02	1 20		1 25	- ~	100	
Departure (inches)	2 7 3	28 U	1 20								?;-	0.20	10'77
	2.1	2	67.1-	0.40	0.14	N.	-0.11	0.69	1.47	-0.04	-0.50	-0.96	3.02
No.6 Uintah Basin													
Normal	07 0		000			ļ	1						
	0.40	0.40	0.63	0.73	0.86	0.71	0.71	0.73	0.88	0.96	0.56	0,60	8.31
	1.40	0.59	0.08	1.57	0.89	0.99	0.52	2.20	3.09	0.59	0.71	0.32	12.95
Departure (Inches)	0.92	0.13	-0.55	0.84	0.03	0.28	-0.19	1.47	2.21	-0.37	0.15	-0.28	4.64
No.7 Southeast													
Normal	0.68	0.59	0.81	0.66	0.67	0.46	0 Q7	1 05	90 U	4 7 7	0 00	0 73	
1997	1 70	00.0	770					2			0.0	2.5	ď. JJ
Demotrice (inches)				NC-1	4	0.46	1,18	1.59	2.53	1.08	0.51	0.40	12.60
Departure (incres)	1.02	0.21	-0.70	0.84	0.07	0.0	0.21	0.54	1.55	-0.05	-0.29	-0.33	3.07
STATE AVERAGES													
Normal	1.02	1.01	1.29	1.16	1.09	0.74	0.90	1 05		1 15	1 00	1 05	17 66
1997	2.64	0.94	0.27	1.56	1.14	1.16	0.87	175	0 8 C	900		 	14.00
Departure (inches)	1 63	20 0	1 5		200					0.00	0.00	0'0	CO'CL
		5	12	0.00	222	0.44	-C.U.S	0.7Z		۶Ľ.9	-0.20	-0.43	2.99



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, decreased again in 1997.

The proportion of Utah's population hunting small game is declining (Table 2). In the early 1970s about 9 percent of Utah's population was hunting small game. In 1997, only 3.0 percent of Utah's population hunted 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 public services.

Table 1. Statewide small game license sales information, 1954-97.

		t Res.		Res.		Res.		
		Game		Game		Game	Combinatio	n l iconeo
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	6 9 6	\$15.00	85,198	\$6.00 \$6.00
1959	13,421	\$3.50	5, 96 6	\$2.00	669	\$15.00	90,069	-
1960	12,020	\$3.50	5,022	\$2.00	576	\$15.00	90,089 90,085	\$6.00
1961	12,177	\$3.50	6,108	\$2.00	617	\$15.00 \$15.00	-	\$6.00
1962	12,953	\$3.50	6,536	\$2.00	607		88,180	\$6.00
1963	13,365	\$3.50	6,319	\$2.00 \$2.00	642	\$15.00 \$15.00	91,412	\$6.00
1964	13,073	\$3.50 \$3.50	-			\$15.00	94,768	\$6.00
1965	•	-	6,453 6 755	\$2.00	681 740	\$15.00	98,556	\$6.00
	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
1967	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	\$4.5 0	15, 86 9	\$2.50	967	\$20.00	115,362	\$10.00
1976	33,078	\$6.00	16,261	\$3.00	1,141	\$20.00	76,587	\$18.00
1977	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
1980	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	79,165	\$35.00
1992	21,852	\$12.00	5,431	\$6.00	1,195	\$40.00	78,940	\$35.00
1993	20,899	\$12.00	4,887	\$6.00	1,150	\$40.00	78,030	\$25.00
1994	25,792	\$12.00	4,551	\$6.00	1,223	\$40.00	59,854	\$25.00 \$25.00
1995	24,219	\$12.00	4,403	\$6.00	1,225	\$40.00	59,854 66,607	-
1996	23,908	\$12.00	3,584	\$6.00	1,503	\$40.00 \$40.00	•	\$25.00
1990	23,300		•	-	•		65,003 62,026	\$25.00
133/	22,333	\$12.00	3,546	\$6.00	1,476	\$40.00	62,936	\$25.00

Table 2. Actual (1971-1997) proportion of Utah population hunting small game.

laple 2.			population nunting sman game.
	Utah	Resident Small Game	Proportion
Year	Population	Hunters 1	Hunting Small Game
1971	1,101,000	93,399	8.5
1972	1,135,000	102,430	9.0
1973	1,169,000	106,868	9.1
1974	1,197,000	104,796	8.8
1975	1,234,000	100,702	8.2
1976	1,272,000	77,138	6.1
1977	1,316,000	78,652	6.0
1978	1,364,000	87,928	6.4
1979	1,416,000	93,016	6.6
1980	1,461,037	103, 018	7.1
1981	1,524,830	96,104	6.3
1982	1, 588, 622	92,724	5.8
1983	1,652,415	86,396	5.2
1984	1,716,207	81,499	4.7
1985	1,780,000	88,498	5.0
1986a	1,665,000	87,442	5.3
1987a	1,678,000	79,485	4.7
1988	1,695,000	87,928	5.2
1989a	1,715,000	89,147	5.2
1990a	1,722,850	87,691	5.1
1991a	1,774,241	86,484	4.9
1992a	1,820,453	88,707	4.9
1993a	1,866,000	86,150	4.6
1994a	1,916,000	72,383	3.8
1995a	1,959,000	75,251	3.8
1996a		70,142	3.5
1997a	2,048,753	61,945	3.0
	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · ·	

1 Resident Small Game Hunters = Number of Combination Licenses sold - number of Federal Duck Stamps sold, plus number of Resident Small Game Licenses sold, plus half of number of Juvenile Resident Small Game Licenses sol

a Utah Population Estimate Committee Report for July 1 (Governor's Office Planning and Budget)

Table 3. Small game license sales and income, 1971-97 (JSG=juvenile small game, RSG=adult resident small game, CMB=combination license, NRSG=nonresident small game).

									No. Federal					
		Licen	License Fees			Number of L	Number of Licenses Sold		Duck Stamps	Total Gros	s Revenues A	Total Gross Revenues Attributed to Small Game (\$)	nall Game (\$)	
Year	SG	RSG	CMB	NRSG	JSG	RSG	CMB	NRSG	Sold(3)	JSG(4)	RSG	CMB(2)	NRSG	TOTAL(1)
1971	2.50	4.50	10.00	20.00	16,044	20,681	102,284	1,000	37,598	20,055	93,064	200,557	20,000	313,676
1972	2,50	4.60	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	2.60	4.60	10.00	20.00	16,522	18,836	115,436	964	36,665	20,662	84,762	247,290	19,280	352,704
1974	2.60	4.60	10.00	20,00	16,334	17,434	117,770	974	38,575	20,417	78,453	245,604	19,480	344,374
1975	2.60	4.50	10.00	20.00	15,869	17,067	115,362	967	39,662	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	262,862	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	241,612	425,120	39,900	694,716
1981	4.00	90°B	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	1,686	33 ,642	25,620	305,249	267,670	50,134	688,639
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
1986	6.00	12.00	35.00	40.00	12,987	30,102	82,137	1,600	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	26,633	36,838	364,804	396,973	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	26,733	72,846	1,428	15,400	28,494	308,796	636,971	67,120	873,261
1989	6.00	12.00	36.00	40.00	5,769	26,845	74,274	1,422	13,867	17,307	310,140	663,691	56,880	891,138
1990	6.00	12.00	36.00	40.00	5,682	24,527	76,292	1,279	16,969	17,046	294,324	543,986	61,160	866,366
1991	6,00	12.00	36.00	40.00	5,626	23,276	79,165	1,212	18,770	16,878	279,312	563,485	48,480	869,675
1992	6.00	-12.00	35.00	40.00	6,431	21,852	78,940	1,196	14,801	16,293	262,224	598,417	47,800	924,734
1993	6,00	12.00	25.00	40.00	4,887	20,899	78,030	1,150	16,223	14,661	250,788	585,989	46,000	897,438
1994	6.00	12.00	25,00	40.00	4,551	26,792	59,854	1,223	15,639	13,663	309,504	413,459	48,920	786,636
1995	6.00	12.00	25.00	40.00	4,403	24,219	66,607	1,379	19,428	13,209	290,628	440,180	55,160	799,177
1996	6.00	12.00	26.00	40.00	3,584	23,908	65,003	1,503	21,403	10,752	286,896	662,412	60,120	910,180
1997	8.8	12.00	26.00	40.00	3,674	22,980	63,513	1,563	26,099	11,022	275,760	486,705	62,620	836,007
1 Value	does no	t include	cougar,	 Value does not include coupar, bear, limited e 		d conservatio	in wild turkey	bermits, ha	ntry and conservation wild turkey permits. habitat authorization and cooperative wildlife	and cooperat	ive wildlife			

1 Value does not include cougar, bear, limited entry and conservation wild turkey permits, habitat authorization and cooperative wildlife management unit fees or commercial hunting area licenses.

lt does not include NRSG revenue⊸this is assumed to be primarily non-resident bear and cougar hunters.

- from combination license sales when projecting revenue generated. The proportion of the combination license fee attributed 2 Combination license values are based on the assumption that all waterfowl hunters purchased only combination licenses. They may fish and hunt big game but they do not hunt any other small game. Therefore, duck stamp sales are subtracted to small game equals the resident small game license fee divided by the resident fishing license fee, plus the resident smail game license fee or \$12.67 for 1997.
- 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 Half of the juvenue small game license sales were attributed to waterfow! hunters. Federal duck stamps are not required of Juveniles less than 16 years of age.
- 210

APPENDIX C

Surveys

Regional and statewide summary of effort expended on upland game summer surveys, 1972-97.

Generally hours spent and miles driven on upland game surveys in Utah have declined dramatically since 1972. 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 Federal Fair Labor and Standards Act has further eroded survey effort.

.

1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1		ł	Northern		Central		Southern	LEGION						
	cles		Miles		Miles	Hours	Miles	Hours	Miner	_1	Southeaster Miles		STATE TOT	ø
	asant								-	einoit	6 Allina	SIND	MII68	Ê
	- 1	1972	469	ĩ	963	I	752	ı	535	ł	297	1	3.016	
	- •	E/AL	322	1	681	ł	740	I	488	I	230	I	2.471	
		13/4 107E	8/4 8/4	ı	819 2.5	ł	848	1	508	1	317	ı	2.971	
	Ŧ	1078 1078	004	1		I	883	1	515	1	393	I	3,237	
	Ŧ	1070		1		1	511	I	4 34	I	4 00	I	2,905	
	Ŧ	1078 1078		ł	15)	1	06.	I	554	1	343	ı	2,902	
	Ŧ	1979		r		I	5	1	512	ł	588	ı	2,875	
	Ŧ	1980		1		1	51	1	562	I	209	ł	2,572	
		1981	459	. 1	7/0	1		1	546	ł	270	I	2,596	
		1982	427	[]	040	ł		1	535	ł	330	1	2,650	
	- •	1001	19c	I	870	1	563	1	477	I	332	1	2,468	
		1001	102	1	47	I	180	1	426	I	330	I	2,238	
	- 4	1001		1	ROP	1	473	1	463	1	166	1	1.905	
	- 4	0001	202	1	505	ł	650	ı	492	1	180	1	2.008	•
		0081	400 100	1	617	1	699	ĩ	520	1	270	1	2.531	
	- 4	/981	432	ł	518	ł	574	1	546	I	8	ſ	2,160	
	- 1	8861	3 34	1	436	1	604	1	469	I	8	I	1 933	
	•	6861	499	1	427	I	45	ı	403	1	2	1	ACA F	-
	-	1990	518	1	609	1	97	1	240	1	: 5	ł		-
	-	1991	485	1	496	1	120	ı	375	! !	20	1	1.404 1	
	~	1992	413	ı	455	1	0	ł	6.7 6.67		88	I	000'1	•
	+	1993	249	ı	647	1	90	I	240			1	010,1	-
	-	1994	180	I	468	1	1	I	202	1	00	1	1,306	•
	-	1995	150	1	454	I	1	I	285	1	1	1	669 000	•
	÷	966	141	1	471.8	1	1	I	261 R	[]	1	I	898	•
	Ŧ	1887	60	I	419.8	1	1	1	270 E	ĺ	1	ł	5/4/5	•
							I	I	7/ 3.0	I	1	1	759.3	•
	ar													
	Ŧ	972	712	9	1.423	131	860	37	1 013	UB	100	ŝ		
	Ŧ	973	1,063	119	1.494	167	12	;	70E	8 9	40R	88	5,081	Ř
	Ŧ	974	125	31	1.591	107	KR4	25		2	707	2	4,036	4
	4	975	188	30	808	R	802	} ₹			011,1	2	3,835	27
	1	976	875	12	964	; ;	165 AGK	. 5	202		786	3	3,582	58
477 355 575	1	118	405	2	1 198	120		55	121	2	289	99	3,718	Ř
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	÷ *	978	359	a a	460	24	100	5	600	5	429	4	3,233	3
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$. 4	879	RAR	3 2	804 103		07	4	315	23	636	52	1,804	Ŧ
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		980	283	5 8	1 000		014	2	283	23	267	4	2,314	18
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$. 4	QA1	220	3 2	000	1	007	2		0	3	9	2,239	2
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$. 4	0.87	471	3 2	141	D Q 2 4		5	245	21	260	32	6	1 6
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3	983	17	5		8 Ç		ç .	260	37	<u>1</u> 0	8	1,880	1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	15	984	854	ž	202	: 2	7		994	4	103	~	818	ð
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	15	986	236	5 6	453	4 8	1	1	1	1	118	16	1,075	12
1987 813 119 388 35 119 388 35 119 388 35 119 388 35 119 388 35 119 388 35 119 388 35 119 388 35 119 388 35 119 388 35 119 388 35 119 388 35 119 388 35 116 1 116 1 116 1 116 1 1 106 32 1 106 32 1 1076 32 1 1076 10 1 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 107 1 1 1 107 1 1 1 1 1 1 1	19	986	394	29	432	37	1	1	1 5	Ŧ	174	12	863	12
1988 379 35 457 49 77 769 1988 379 35 457 49 60 23 769 23 769 1989 105 17 505 30 60 7 100 23 769 1989 105 17 505 30 11 8 23 14 12 765 1994 0 311 18 0 11 8 235 20 1510 14 12 765 1992 178 270 12 0 0 14 12 705 14 12 705 1993 1 18 0 0 0 235 200 1510 1510 1994 1 1 18 0 0 0 236 20 1510 1996 1 1 18 0 0 0 216 536 14 12 1510 1996 1 1 1 1 1	15	987	813	119	398	36		e	206	₫ C	1	1	961	5
1989 105 17 505 30 14 1 100 1991 0 21 1,190 73 1 100 14 12 765 1991 0 311 18 0 311 18 1 15 765 1992 178 270 12 0 0 311 12 765 1992 178 270 12 0 0 225 11 15 1993 1 1 1 1 1 1 15 165 1994 1 1 1 0 0 0 0 236 20 1,510 1995 1 1 1 1 1 1 536 20 2,56 536 1996 54 1 1 1 1 1 536 216 536 500 1996 54 1 1 1 1 1 536 500 236 500 216 536 50	15	988	379	35	457	84	60		000	36	0/1	57	1,691	2
1990 1 21 1,190 77 1 1991 0 311 18 2 235 23 1991 0 311 18 0 1 1,510 1991 0 311 18 0 1 18 1 1992 178 270 12 0 0 226 1 536 1993 1 1 1 1 1 1 536 1 536 1993 1 1 1 1 1 1 536 1 536 1 536 1994 1 1 1 1 1 1 536 1 536 1 536 1 536 1 1 536 1 1 536 1 1 536 1 1 536 1 <t< td=""><td>15</td><td>989</td><td>105</td><td>17</td><td>505</td><td>30</td><td>Ŧ</td><td>. œ</td><td>1</td><td>t I</td><td>144</td><td>₫ Ç</td><td>1,0/6</td><td>2 1</td></t<>	15	989	105	17	505	30	Ŧ	. œ	1	t I	144	₫ Ç	1,0/6	2 1
1991 0 311 18 0 311 18 0 200 1992 178 27 270 12 0 0 225 11 536 1993 1 27 270 12 0 0 225 11 536 1993 1 1 1 1 1 1 200 226 11 536 1993 1	48	06 6	ł	3	1,190	77	1	1	86	0	<u>1</u>	<u>4</u> č	1 100	ē
1892 178 27 270 12 0 0 1892 178 27 178 27 1893 1893 1893 1 1893 1 1893 1 1893 1 1893 1 1893 1 1893 1 1893 1 1893 1 1893 1 1893 1 1893 1 1 1 1 1 1994 1 <	19	991	0	•	311	18	0	0	; =		23E	2 4	1,010	23
1993 1 1994 1 1994 1 1996 54 1996 54 1 1 1 1<	18	992	178	27	270	12	0	0	• •	• c	916 916		020	Ň
1994 1	96	3 83	ı	I	ı	I	1	• 1	•	• 1		t ;		23
	19	394	I	ł	I	ł	1	I	1	i I	2 2	, α	0 5	
1996 54 16.5 1 1 1 1 1 1 1 1 1 1	19	395	1	I	;	F	I	1			2	Þ	2	ρ
		967						1	1	2	1	1	:	

-	l
Ţ	۱
-	I
Ē	I
7	I
S	ł
8	I
-	I
<u> </u>	ŀ
<u>•</u>	
<u>e</u>	I
Ë.	I
	L

Mathema Ampliant Mathema <								REGION						
Mate House House </th <th></th> <th>ž</th> <th></th> <th></th> <th>Central</th> <th></th> <th>Southern</th> <th></th> <th>Northeastern</th> <th></th> <th>Southeastern</th> <th></th> <th>STATE TOT/</th> <th></th>		ž			Central		Southern		Northeastern		Southeastern		STATE TOT/	
	Species Species	W	1	Hours	Miles	Hours	Miles	Hours	Mile		Miles	Hours	2	
	•		328	323	1.187	143	761	144	2.125	170	1.280	141	R 971	021
	Ţ		99	363	927	147	1171	41	1 455	218	404		7 803	90E
			126	321	1.551	115	1.861	193	2.964	248	887	124	0 200	1001
			2	549	963	123	714	226	1 868	236	1 098	12	5,007 5,907	ORK ORK
			NSS.	281	476	12	379	183	1 984	227	1 2 2 2 2	- i	5 973	072
			99	305	1.370	133	465	157	1 995	215	928	118	6 7 7 A	976
			89	267	541	124	490	162	1.616	226	879	27	4 924	RAG
	*		151	150	200	132	563	143	1.719	203	279	5 2	4.312	648
			00	218	806	150	518	2	1.471	184	278	9	4.076	706
	15		19	194	691	66	285	57	11	163	377	66	2.743	552
	*		969	169	762	92	454	83	862	116	ł		3.747	460
	*		2	158	720	164	284	5	992	125	108	9	2.714	508
	1		H	278	283	82	289	2	530	98	151	÷	2.664	526
	1		3	169	481	4	410	4	666	3	106	: თ	3,827	381
	1		124	197	281	39	169	4	948	3	146	, 1	2.568	387
2002 773 703 773 703 773 703 <th703< th=""> <th703< th=""></th703<></th703<>	1		939	205	172	37	286	02	1,114	124	195	: ç	3,706	124
	Ť		200	ţ	678	108	346	88	690	5	<u>}</u> 1	2 1	3 775	1
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	÷		1	108	360	3	46 46	5 2	567	, t	187	12	1 505	100
			8 12	2 F	444	9 9	;	64	PAR	5 8	ē \$	5 -	1,000	144
			2	210	270	3 2	8 5	2		35	2 8	- ;	070'F	300
			5	125	2,40	44	JAR	1	Ş	1	3	2 5	750	104
			r I	2 8	36	: 2		3	22	2 ~	5	3 5		107
	- +		. 9	34	34	, ¢	t I		135	ņ¢	2	3 a	101	<u>}</u>
			, <u>C</u>	2 8	2	2 1			3 4	2 7	3	5	210	444
			2 -	2 4			176	18	i ni	2 4	ł	I		
	- 7		- 6	f #		; ;		146	T TOD	2 +	1	1	1,100	202 204
	-		\$	\$	l	l	2	2	ç	-	ı	I	00741	107
	Forest Grouse													
	7	•	70	212	804	103	214	260	1,346	140	351	82	4,085	797
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	7		27	127	917	105	296	429	949	147	761	72	3,550	880
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	*		67	152	924	157	157	461	1,090	66	1,574	133	4,712	1,002
	#		2	199	1,287	160	775	629	1,474	136	1,476	135	6,206	1,259
	÷.		516	351	1,603	216	427	271	1,108	140	1,127	134	5,681	1,112
	*		24	132	1,317	162	610	286	1,040	135	1,079	128	4,783	843
	~		<u>S</u>	297	1,171	129	432	219	1,083	147	626	114	4,612	906
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Ť		\$	The second se	1,312	17	714	275	729	107	436	42	3,936	945
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Ŧ			201	1,260	158	160	230	602	74	266	39	2,765	702
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Ť		88	147	958	147	575	295	835	120	184	29	3,240	738
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	***		98	4	1,488	157	1	354	742	111	r	1	2,736	696
1984 615 157 384 30 230 734 30 230 734 30 711 1 40 1/209 1986 987 127 380 41 230 73 1	-		6 40	218	1,180	6 3	459	ŝ	636	93	1	50	3,324	504
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			15	157	364	8	230	28 2	1	ł	1	9 :	1,209	305
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			8	202	436	62	564	06	1	1	1	4	1,858	384
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			- 6	127	380	4	254	51	412	5	ł	1	2,043	280
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	£ ;		<u>8</u>	147	305	L.	200	65	438	8	ı	1	2,091	347
1989 795 109 635 69 45 3 573 75 286 33 2,334 1990 171 150 701 113 30 3 635 64 33 2,334 1991 - 178 536 54 30 3 1685 91 2,334 1992 362 104 167 52 0 0 1 2 536 1992 362 104 167 52 0 0 1 2 534 1993 290 34 1 28 10 0 1 2 534 1994 - - 1 2 1 3 243 45 574 1996 - - 1 1 1 2 566 574 1997 46 10 1 1 2 2 56 574 1996 - - 1 1 2 2 5 574 1996<	# !		18	1	55	60 (160	53	558	7	1	1	1,891	274
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,		8	- 109 - 1	635	63	5		573	75	286	33	2,334	289
1991 - 178 536 54 30 2 0 - 2 566 1992 362 104 167 52 0 0 - 2 566 1992 362 104 167 52 0 0 - 2 566 1993 290 34 1 2 2 644 3 574 566 1994 - - 1 0 1 0 5 574 574 1996 - - 1 1 2 20 644 574 1997 46 10 - - 10 - 1 2 56 1997 46 10 - 1 1 2 56 574 1997 46 10 - 1 1 2 56 574 1997 46 10 - 1 1 2 55 574 1997 46 10 - 1	f ;			<u>6</u>	10/	513	B	5	185	5		1	1,087	357
1992 362 104 301 324 301 324 304 1993 290 34 1 28 1 0 04 1994 1 28 1 3 243 45 574 1996 1 1 28 1 3 243 45 574 1996 1 1 26 7 1 3 25 574 1996 1 1 26 7 1 25 574 56 1997 46 10 1 26 7 1 25 50 1997 46 10 1 20 2 1 25 50			. :	82L	83	8 5	D, c	NG	- ;	-	1	2 10	566	236
1993 290 34 1 243 45 514 1994 1 1 2 243 45 514 1996 1 1 1 1 2 243 45 514 1996 1 1 1 1 1 1 2 54 54 1996 1 1 1 1 1 2 56 56 1997 46 10 1 1 2 1 1 2 50 1997 46 10 1 1 12 8.5 1 50	<u>~</u> ;		2 2	<u></u>	101		5	>	2:	0 1	60L	<u>R</u> :	ŧ	191
1994 1 1 1 1 1 3 1996 1 1 3 2 1 1 3 1997 46 10 1 1 2 1 1 3			De	5	L	BN	1	I	4	r) (243	45	574	110
1996 - - - - - - - - 25 1997 46 10 - - - - - - 20 1997 46 10 - - - - - 50	2		3	1	1	1	1	1	1	21	1	ł	ŝ	- 16
1997 46 10 50 1997 46 10 58	Ë		,	1	1 2	1 <	1	1	88		1	1	52	~ 1
1997 45 10 1 12 8.5 58	-			1 3	96	N	ı	I	2	₹ ¹	ł	1	ន	<u>פ</u>
	-		ý	10	ı	1	1	1	12	8.5	1	1	28	18.5

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c $		Northern		Cantral		0-11-10	REGION						
		ecies	Miles			1.			Northeastei		Southeaster		STATE TOTALS	
	1 1							SINDL	Ē	SUDOH SOIL	Σ		Ž	Miles Hours
		1972		6 0 (25	30	575	39	870	63	120	60	1 963	
		VAL		ę.	584 784	36	32	æ	638	38	25	17	939	
	2 2			e t (7	27	853	9 9	227	28	214	21	1.361	
	2 1 2 1 2	JAL		:	107	53	841	3	594	Ŧ	230	12	1.799	-
4 1		5/RL		e .	206	29	503	62	597	4	75	9	1,462	
1 1		1978		đ	500	89 G 87 G	445	42	341	26	60	16	1,219	
	88 0	101		1 3	877	2	290	61	541	8	8	17	1,431	
68 0 1 1 0 1	8 9 1			• ع	92 7	-	478	4	346	32	15	ç	1.002	
	0 0	1001 1001		, מ	202	53	240	36	410	¥	0	0	951	
0 1 1 0 1 1 0 0 1 1 0	1 1	1021		5 (DRL	12	329	43	366	31	•	3	933	
0 1 1 0 1 1 0	0 1 1 0 1 1 0	7081		0 0	161	4	304	4	475	4	•	•	930	
1 1	 4.8.8.7.8.8.8.9.7.8.8.9.7.8.8.8.8.8.8.8.8			70	56	8	562	61	296	26	0	0	955	•
1 1	1 1	1981 1981		1	82	8	266	4	ł	ı	1	ŀ	SA6	
1 0 1 0 1 0 1 0 1 1 0 1 1 1 0 1	1 0	1980	1	м	82	÷	252	33	I	ı	1	I	PCE	
10110011111	 10110011111 25,4,4 26,1 27,1 27,1 27,1 28,1 27,1 <	905L	ł	ł	6	7	306	28	1	1	ł	1	316	
0 1 0 1 0 1 0 1 0 1 0 1	0 1 0 1	1981		•	8	2	257	29	I	1	3	1	212	
1 0011011 84.6.5.8.8.6.6.8.5.8.6.6.7.1.1.1.5.5.1.0.6.1.1.1.5.5.1.0.6.1.1.1.5.5.1.0.6.1.1.1.5.5.1.0.6.1.1.1.5.5.1.0.6.1.1.1.5.5.1.0.6.1.1.1.5.5.1.0.6.1.1.1.5.5.1.0.6.1.1.1.5.5.1.0.6.1.1.1.5.5.1.0.6.1.1.1.5.5.1.0.6.1.1.1.5.5.1.0.6.1.1.1.5.5.5.6.6.6.5.6.6.6.6.6.6.6.6.6	1 1 0 0 1 1 0	1988		ю	1	I	277	37	96	12	: 1	1 1	112	
1001111 5,5,5,2,8,5,4,8,5,5,4,8,5,5,4,8,5,5,4,8,5,5,4,8,5,5,4,8,5,5,5,8,5,5,8,8,5,5,8,8,5,5,8,8,5,5,8,8,5,5,7,8,5,5,7,8,5,5,7,8,5,5,7,8,5,5,7,8,5,5,7,8,5,5,7,7,5,7,1,5,5,7,5,5,7,8,5,5,7,7,5,7,1,1,1,1	10011111 555555555555555555555555555555	1989	1	ı	ł	1	145	10	22	!~	: 1		2 1 2	
C	0 1	1990	ł	ł	I	ı	97	2 00			1	1	51	
0 1	0 1	1991		0	ı	-	; =	• -		•	; <	1 •	16	
1 1	1 1	1992		•	0	. 0	• c		8	* •	- 8	-	69	
1 1	1 1	1993		1	, 1	• 1	• 1	> ec	1 1	- 4	8	N	ខ	
1 1	1 1	1994		1	1	ł	J) a	3	D	1	I	ŝ	
1 	1 	1995		:	ı	I	1	• •		<u> </u> 44	I	1	1 8	
1 ^{5,1} / _{1,2} ^{5,1} / _{1,1} ^{5,1} / _{1,}	1 ⁴ / ₅ / ₅ ⁴ / ₅ ⁴ / ₅ / ₅ ⁴ / ₅	1996		I	I	I	1	• 1	; 1	5	I	1	80	
1 1	1 1	1997		I	I	I	1	3.5	1		1	1	ł	-
5 5	1 1							2	l	I	1	I	1	
7.255 7.255	1,288 1,288 1,288 1,683 1,683 1,683 1,683 1,683 1,683 1,683 1,683 1,683 1,683 1,683 1,683 1,683 1,683 1,683 1,111 <td< td=""><td>garian Partridge</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<>	garian Partridge												
7.85 7.85 <t< td=""><td>1. <td< td=""><td>1972</td><td>1,255</td><td>126</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>I</td><td>1</td><td>2</td><td>Ŧ</td></td<></td></t<>	1. 1. <td< td=""><td>1972</td><td>1,255</td><td>126</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>I</td><td>1</td><td>2</td><td>Ŧ</td></td<>	1972	1,255	126	1	1	1	1	1	1	I	1	2	Ŧ
7005 34 200 74 56 56 56 56 56 56 56 57 56 56 56 57 56	2010 2014 2015 2016 2016 2017 2016 2017	E/6L	1,643	156	5	4	ł	I	I,	I	I	1	1 RK	
4 5	48 68	1974	1,035	176	4	2	I	1	ı	ſ	I]	0701	
94 94 95 95 95 95 96 96 96 96 96 96 97 96 97 96 97 96 97 96 97 97 98 97 97 98 97 98 98 97 98	98 1,1,1 96,5 1,1,1 1,06,5 1,06,5 1,06,5 1,06,5 1,06,5 1,06,5 1,06,5 1,06,5 1,06,5 1,06,5 1,1 </td <td>1975</td> <td>77</td> <td>2</td> <td>0</td> <td>0</td> <td>1</td> <td>ı</td> <td>1</td> <td>1</td> <td>1</td> <td>r I</td> <td></td> <td></td>	1975	77	2	0	0	1	ı	1	1	1	r I		
1.1 1.1	1,145 446 446 446 446 446 456 456 456 586 587 586 587 586 587 <td< td=""><td>1976</td><td>946</td><td>83</td><td>113</td><td>21</td><td>1</td><td>1</td><td>I</td><td>I</td><td>1</td><td> </td><td></td><td>- •</td></td<>	1976	946	83	113	21	1	1	I	I	1			- •
200 201 201 201 201 201 201 201	1,065 440 1,065 440 1,065 230 1,055 0.32 1,1 1,1 1,1	1977	1,145	156	125	5	I	1	ł	1	1		000 T	
45 55 56 56 56 57 56 56 57 <td< td=""><td>45 55 5</td><td>1978</td><td>1,065</td><td>90</td><td>197</td><td>17</td><td>ı</td><td>ı</td><td>1</td><td>,</td><td> 1</td><td> </td><td>0 /7' I</td><td></td></td<>	45 55 5	1978	1,065	9 0	197	17	ı	ı	1	,	1		0 /7' I	
82 5 5 6 0 8 7 5 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8	25 25 <td< td=""><td>1979</td><td>4</td><td>27</td><td>37</td><td>'n</td><td>1</td><td>ı</td><td>1</td><td>I</td><td> ;</td><td>I</td><td>707</td><td></td></td<>	1979	4	27	37	'n	1	ı	1	I	;	I	707	
8 8 0 8 7 8 8 8 9 8 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 4 0 8 7 8 1 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	23 23 24 25 <td< td=""><td>1980</td><td>250</td><td>22</td><td>8</td><td>9</td><td>1</td><td>1</td><td>1</td><td>1</td><td>[}</td><td>1</td><td>7.4</td><td></td></td<>	1980	250	22	8	9	1	1	1	1	[}	1	7.4	
۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰	25 0 35 2 25 30 35 0 25 30 25 30 35 2 25 30 30 30 30 30 30 30 30 30 30 30 30 30	1981	270	23	65	ŝ	ł	1	1		ł	ł		
o & 2 & 2 & 8 & 6 & 8 & 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1	0 8 4 8 8 9 8 1	1982	324	39	I	1	I	1		I	I	1	0.55	
2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2	85 ± 20 80 5 0 80 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1983	•	60	I	ł	I		1	1	1	I	324	
<pre> # 2 8 % 0 % 1 1 1 1 1 1 % 4 6 8 0 8 4 8 4 0 4 1 1 1 1 5 1 1 0 6 1 1 1 1 1 1 5 1 1 0 6 1 1 1 1 1 1 1 5 1 1 0 6 1 1 1 1 1 1 1 5 1 1 0 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</pre>	4.20 8 8 0 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1984	815	221	I	I	1	ł	: 1		r	ł	- 2	
2000 2000 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	22 88 80 88 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1985	114	8	ı	ı	I	ł	1	I	I	1	615 	N '
8 % 0 % 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	86 26 26 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1386	213	4	1	1	,	1 1	I I	ł	1	I	114	•••
2 5 0 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25. 0 3. 0 3. 0 3. 0 3. 0 3. 0 3. 0 3. 0	1987	300	\$	1	1	1	[]	E I	I	I	1	213	4
o & 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 & 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1988	316	30	1	•	1	r 1	[]	E	I	I	300	•••
88 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	88 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1989	0	0	I	ľ	1	1		1 1	1	1	97 c	
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	1990	393	30	ĩ	,	ł	1	· 1]	I	I	-	
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	1991	1	41	0	0	1	I	Í	r 1	1	I	585 0	
11111 (4.00 ft 1) (11111) (1 1 1 1 1 4 ∞ % 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1992	1	83	40	2	ſ	1	[ł	1	ł	- :	a r (
	9 1 1 1 1 1 1 1 1 1 1 1 1 1	1993	1	42	1	i 1	ſ			1 2	ł	1	₽	
		1994	ł	80	I	I	I	1	1		1	1	Ŧ	4
		1995	ł	77	ł	1	I	1		1	I	1	I	
		1996	I	1	ł	1	I	ſ	ł	ł	1	I	I	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	I I I I I I I I I I I I I I I I I I I	1997	I	1	1	ł	ı	1	Ľ	1	1	I	I	•

~

~	
- 31	
닅	
5	
ē	
*	
- 8	

Species Miles Hours Miles Hours 1973	Res 2,2,2,0,2,3 4,410	Tours 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,	Miles Hours See	Miles Miles Miles	Miles Hot 271226888411111611150001111 81	Miles 85.1 - 1 - 1 - 1 - 25.5 - 2.5 85.1 - 1 - 1 - 1 - 25.5 - 2.5 85.2 - 2.	Miles Hours Hours An 25285211111151111285 An 11275 An 112755 An 11275 An 11
1972 1 1973 1 1974 1 1975 1 1976 1 1977 1 1976 1 1977 1 1978 1 1979 1 1976 1 1978 1 1980 1 1981 1 1982 1 1983 1 1984 1 1985 1 1986 1 1987 1 1988 1 1988 1 1989 1 1989 1 1990 1 1991 1 1996 1 1997 1 1998 1 1991 1 1992 1 1993 1 1994 1 1995 1 1996 1 1972 510 <				81888851111188851111	第126名第24111111111111111111111111111111111111	8533111245 1900 1911 1912 1912 1914 1917 1917 1917 1917 1917 1917 1917	\$2\$\$\$288\$11111\$111888\$211\$
972 972 1 <td></td> <td></td> <td></td> <td>8188888888</td> <td>212648841111161115001111</td> <td>363 264 27 264 264 264 264 264 27 264 27 264 27 264 27 264 27 264 27 264 27 264 27 264 27 264 27 264 27 266 264 27 266 264 266 266 266 266 266 266 266 266</td> <td>\$77\$\$2668711111511128221128</td>				8188888888	212648841111161115001111	363 264 27 264 264 264 264 264 27 264 27 264 27 264 27 264 27 264 27 264 27 264 27 264 27 264 27 264 27 266 264 27 266 264 266 266 266 266 266 266 266 266	\$77\$\$2668711111511128221128
973 7 974 7 975 7 976 7 976 7 976 7 976 7 976 7 976 7 978 7 980 7 981 7 982 7 983 7 986 7 987 7 988 7 989 7 989 7 989 7 989 7 989 7 999 7 999 7 991 7 992 7 993 7 994 7 995 7 996 7 997 7 998 7 999 7 991 7 992 7 993 7 993 7				188882885111114111188871111	12648841111161115001111	7, 28 2011 - 1, 2017 - 1, 2017 2017 - 1, 2017 - 1, 2017 2017 - 1, 2017 - 2017 2017 - 2017 - 2017 2017 - 2017 - 2017 - 2017 2017 - 2017	たなものに825111111111111111111111111111111111111
974 1				8288486111114111188671111	264884 i i i i i i i i i i i i i i i i i i	799 7007 787 787 735 735 74 75 75 75 75 75 75 75 76 76 76 76 76 76 76 76 76 76 76 76 76	44477111111111111111111111111111111111
976 7 977 978 978 7 988 1 988				888488111114111887111	ဗ်ဴးမီးအီးအုန္း၊၊၊ ၊ က်ဴး၊၊ ၊ က်ဴးစစာ ၊ ၊ ၊ ၊ ဗ်ဴးမီးအီးအိန္း၊ ၊ ၊ ၊ က်ဴး၊ ၊ ၊ ၊ က်ဴးစစာ ၊ ၊ ၊ ၊ ၊	7007 847 867 867 867 867 867 867 867 867 867 86	£26841111€111896113€
978 979 979 979 980 981 982 988 988 988 988 988 988 988 988 988 988 989 980 981 982 983 984 985 985 986 987 987 987 9				1877年111日11日11日 1977年1111日1日1日日日日日日日日日日日日日日日日日日日日日日日日日日日	48884 i i i i i i i i i i i i i i i i i	84 84 87 87 87 87 87 87 87 87 87 87 87 87 87	2684111161118961136
973 973 978 980 981 1 982 1 983 1 984 1 985 1 986 1 987 1 988 1 988 1 988 1 988 1 988 1 988 1 988 1 988 1 988 1 988 1 988 1 988 1 988 1 989 1 989 1 989 1 991 1 992 1 993 1 994 1 995 1 996 1 997 337 998 1 999 1 991 1 992 1 933 1				222年1111年1111月第二日	8884 I Í I I I 1611 I 1600 I I I I	863 111112 1208 111112 111112 111112 111112 111112 111111	26841111611188261126
978 978 980 981 981 11 982 11 988 11 988 11 988 11 988 11 988 11 988 11 988 11 988 11 988 11 988 11 988 11 988 11 988 11 988 11 988 11 988 11 988 11 989 11 989 11 989 11 989 11 989 11 989 11 980 11 981 11 982 11 983 11 984 11 985 11 986 11 987 12 988 11 <				22年1111年111月第二日	384 - 1111 - 111 - 111 - 111 - 111	883 1964 - 1 - 1 - 1 - 7 - 7 - 7 - 7 - 7 - 7 - 7	2841111161118961126
989 980 981 982 983 984 985 986 987 988 988 988 988 988 988 988 988 988 988 988 988 988 988 9				4台:::::::::「 あるた」」:	84. 11. 11. 16. 11. 16. 00. 00. 11. 11.	88111114111188411888 8811111888411888	8411111611188961126
980 981 982 983 986 988 9				5::::: を:::あるなた、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、	हारं। तार्कता तार्कल का सा	8 8 1 1 1 1 1 4 1 1 1 1 8 8 2 3 1 4 1 1 1 4 1 1 1 7 8 8 2 3 1 4 1 1 1 4 1 1 1 1 8 8 2 3 1 4 1 1 1 1 4 1 1 1 1 8 8 2 3 1 1 1 1 1 4 1 1 1 1 1 8 8 2 3 1 1 1 1 1 4 1 1 1 1 1 8 8 2 3 1 1 1 1 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1	≴ııııı;¢ıır82,6ı12,¢
980 1 981 1 982 1 983 1 986 1 986 1 986 1 986 1 988 1 986 1 986 1 986 1 986 1 986 1 986 1 986 1 986 1 986 1 987 233 986 1 987 337 988 1 989 1 986 1 987 270 973 233 971 270 973 270 974 270 975 270 980 1 981 1 982 1 983 1 984 1 985 1 986				1111121118851111	11 111 10 11110 00 1111	883311112111111111111111111111111111111	
981 1 982 1 983 1 984 1 986 1 986 1 986 1 986 1 986 1 986 1 986 1 988 1 989 1 991 1 992 1 993 1 994 1 995 1 996 1 997 510 998 1 999 1 991 1 992 1 993 1 994 1 995 1 996 1 997 337 998 1 998 1 998 1 998 1 997 270 97 270 97 270 97 270				: 」 、 : 在 」 (」 「 宮路谷 (」))	11111611160001111	8 8 8 8 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11111611188951126
982 986 986 986 986 986 989 999 999 999 999 999			1 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ 0 \$ \$ \$ \$	111141118851111	ા ા મળ્યા ા મળ્બ ભાષા મ	8831171338111171 883 883 883 883	111161118261126
382 986 987 330 97 330 97 330 98 98 98 98 98 98 98 98 98 98 98 98 98 <td></td> <td></td> <td></td> <td>1 () (2) () (2</td> <td>1 1 1 1 10 1 1 1 10 0 0 0 1 1 1 1</td> <td>843114438811144111 88331144888 8833</td> <td>1111211182121124</td>				1 () (2) () (2	1 1 1 1 10 1 1 1 10 0 0 0 1 1 1 1	843114438811144111 88331144888 8833	1111211182121124
983 1 984 1 986 1 986 1 986 1 988 1 989 1 989 1 989 1 989 1 989 1 999 1 999 1 991 1 992 1 993 1 994 1 995 1 996 1 997 510 997 510 997 510 997 330 974 270 975 510 970 1 971 1 198 1 199 1 199 1 199 1 199 1 199 1 199 1 190 1 191 1 192 1 <td></td> <td></td> <td></td> <td>1112111158551111</td> <td>1 1 1 10 1 1 1 10 0 0 0 1 1 1 1</td> <td>85331171335511117171 853311713555111172</td> <td>111611188261126</td>				1112111158551111	1 1 1 10 1 1 1 10 0 0 0 1 1 1 1	85331171335511117171 853311713555111172	111611188261126
984 - 986 - 986 - 986 - 988 - 989 - 989 - 989 - 989 - 989 - 989 - 999 - 999 - 999 - 999 - 991 - 992 - 993 - 994 - 995 - 996 - 997 337 971 270 973 337 974 270 975 510 974 270 975 270 974 180 975 270 971 - 971 - 972 270 973 180 974 180				11411118851111	11/01111/00001111	8531171335111171 8531177355	11611188251126
986 -				14111887111	1 10 1 1 1 10 00 00 1 1 1 1	6431114385111141 653311748555	119111182171124
986 1 986 1 988 1 988 1 988 1 988 1 989 1 999 1 999 1 999 1 999 1 999 1 999 1 999 1 999 1 999 1 1996 1 1996 1 1996 1 1996 1 1996 1 1996 1 1996 1 1996 1 1997 1 1996 1 1997 1 1998 1 1999 1 1990 1 1991 1 1992 1 1993 1 1994 1 1995 1 1996 1 1997 1 1998 1 1998 1 1998 1 1998 1 1998 1 1997 1 </td <td></td> <td></td> <td></td> <td>121115851111</td> <td>1 ကို ၊ ၊ ၊ ကို လ လ ၊ ၊ ၊ ၊ ၊</td> <td>84311448889111141 863311448889111141 8633</td> <td>1 12 1 1 1 12 12 12 12 12 12 12 12 12 12</td>				121115851111	1 ကို ၊ ၊ ၊ ကို လ လ ၊ ၊ ၊ ၊ ၊	84311448889111141 863311448889111141 8633	1 12 1 1 1 12 12 12 12 12 12 12 12 12 12
986 1 987 1 988 1 988 1 988 1 988 1 999 1 999 1 999 1 999 1 999 1 999 1 999 1 999 1 999 1 999 1 991 1 992 1 993 1 994 1 995 1 997 270 973 230 974 270 975 270 974 270 975 270 974 270 974 270 974 270 975 270 970 270 970 270 970 270 970 270 970 270 970 </td <td></td> <td></td> <td> </td> <td>e 1 () 1 g k 5 () ()</td> <td>စ်၊၊၊ က်လေးစာ၊၊၊၊</td> <td>853117138511114 863311748</td> <td>6111882511286</td>				e 1 () 1 g k 5 () ()	စ်၊၊၊ က်လေးစာ၊၊၊၊	853117138511114 863311748	6111882511286
987 1 988 1 988 1 989 1 999 1 994 1 995 1 996 1 997 510 972 510 973 337 974 270 975 330				11118851111	1 i i i i i i i i i i i i i i i i i i i	643117488 83311748 8633	11118251124
988 1 989 1 990 1 991 1 992 1 993 1 994 1 995 1 996 1 996 1 997 51 972 510 973 337 974 270 975 330 976 180				1118851111	1 1 0 0 0 1 1	8411135 86111 8633	1118261136
989 1 990 1 991 1 993 1 994 1 995 1 996 1 996 1 996 1 996 1 996 1 997 51 972 510 973 337 974 270 975 330			111101111	1158651111	1 1 10 00 0 1 1 1 1	305 174 174 66 33	1182111282
990 991 993 995 996 997 972 510 972 573 337 1 <			0	1 1 5 1 5 7 1 1 1	110001111	305 305 433 66 85	1 1 2 2 2 1 1 2 2
990 1 991 1 993 1 994 1 996 1 1996 1 972 510 973 337 974 270 975 330 975 330			11101111	18851111	1 10 တက () ()	305 135 174 85 85	1822:138
991 1 992 1 993 1 996 1 1996 1 1996 1 1997 1 1996 1 1997 1 1997 1 1996 1 1997 1 1996 1 1997 1 1997 1 1997 1 1997 1 1997 1 1997 1 210 1 270 1 271 279 975 330 1 180 231 1			1 00 1 1	35 25 1 1 1 1 2 35 26	က်းထားစား၊၊၊၊	305 135 174 85 86	8 2 2 1 1 2 8
992 - - 100 993 - - 100 996 - - 1 1996 - - - 1996 - - - 1997 - - - 1997 - - - 972 510 - - 975 330 - - 976 330 - -			101111	85111	ωσ ιιι	135 174 174 85	22:12:23
993 996			·••	351111) () [] [] [] [] [] [] [] [] [] [] [] [] []	433 65 65	16:186
994 1 996 1 1996 1 972 510 973 337 974 270 975 330 975 330				21111		533 I I 74 5	7:12,6
994			111	1111		433 I I	: 125
(995 - - - (996 - - 433 (997 - - 433 (997 - - 433 (972 510 - 279 974 270 - 180 975 330 - 231			111	111	11	433 65	1 2 5
1996 433 1997 433 1972 510 - 279 1973 337 - 242 180 180 180 - 231			11	11	\$ 1	433 65	88 16
997 - 65 972 510 - 279 974 270 - 242 975 330 - 231			1	1	1	99	9
972 510 - 279 973 337 - 279 974 270 - 180 975 330 - 231			1	1	1	0	2
972 510 - 279 973 337 - 242 974 270 - 180 975 330 - 231							
972 510 - 279 973 337 - 242 974 270 - 180 975 330 - 231							
510 - 279 337 - 242 270 - 180 330 - 231							
337 - 242 270 - 180 330 - 231			ı	555	ł	2,643	I
270 - 180 330 - 231			ı	270	1	1,998	I
330 - 231			ł	542	I	2.402	ł
			1	1 2 2	ł	9 860	I
			I		ł	F,000	ł
			1	070	ł	000's	1
360 262			:	556	ł	Z,907	1
382 264			1	761	1	2,745	1
270 - 270			I	580	1	2.423	1
90 - 265			,	97	1	1 909	1
					I	000 ⁽)	ł
			I	200	1	2,423	1
240 240			1	602	ł	2,102	1
1 00			I	590	1	1.932	1
; 1 	171		I	UVD	ł	106	1
l							
I .			I	3	1		1
240 - 148	534		1	066	1	1,610	1
150 - 120	699		ı	240	ł	1,552	1
1	129		1	379	1	360	1
90 - AB	8		I	160	I	87.2	1
	2						
			ł	000	1	0/0	1
1 55	ı		1	330	ı	558	1
60 - 143	8		ı	360	1	857	1
1 183	I		:	360	1	750	I
3	I		1	l	ł	148	1
GFG			-		l		l
I 767 I I CCCI	I	202	1	1	1	ł	I
- 278	ı		:	I	1	496	I
270	ſ		1	1	1	521	1

Season dates, bag limits and areas open by upland game species, 1997.

APPENDIX D

REAS OPEN BAG POSSESSION POOLNOTES POSSION PUBLIC POOLNOTES	8	 Powelf Slough and Goshen Warm Springs 2 4 Only in certain counties are state and tederal lands open to 30 days of pheasant hunting. Check the proclamation carefully! 	10 day pheasant hunting. Only the 2 2 the, Emery, Grand, Juab, Millard, th counties, all state and federal vision subject to restrictions and y Cooperative Wildlife shen Warm Springs wildlife	10 2	ane, Millard, Piute, San Juan, Sanpete, 5 2 + Band-tailed pigeon permit required.	2 2	st of the Locomotive Springs-Snowville- 5 2
AREAS OPEN	 ◆ Statewide, except closed areas. ◆ In Toocle County, the James Walter Fitzgerald WMA closes on November 16th. <u>In Toocle County, the James Walter Fitzgerald WMA is closed to dog</u> <u>Iraining, except dogs may be used to locate and retrieve upland game during</u> <u>open hunting seasons.</u> 	◆ In all of Utah County, except the Powell Slough and Goshen Warm Springs wildlife management areas, the pheasant hunt closes on November 7.	 CAUTION: Not all counties are open for 30 day pheasant hunting. Only the following areas are open: In Carbon, Duchesne, Emery, Grand, Juab, Millard, San Juan, Sanpete, Sevier, Tooele, and Uintah counties, all state and federal land (including private land leased by the Division subject to restrictions and closures imposed by administering agencies). In Box Elder County, the Box Elder County Cooperative Wildlife Management Unit as posted and marked. In Utah County, the Powell Slough and Goshen Warm Springs wildlife management areas as posted and marked. 	 Statewide, except closed areas. 	◆ Beaver, Garfield, Grand, Iron, Kane, Millard, Piute, San Sevier, Utah, Washington and Wayne counties.	 Cache, Daggett, Davis, Iron, Millard, Morgan, Rich, Sanpete, Summit, Wasatch and Weber counties; Those parts of Beaver, Iron, Juab, Millard, Salt Lake and Utah countie east of I-15; That part of Box Elder County east of I-15; That part of Sevier County north of I-70. 	◆ That part of Box Elder County east of the Locomotive Springs-Snowville-
SEASON DATES	Nov I-Nov 16, 1997	Nov I-Nov 7, 1997	1997 Nov 30,	Sept I-Sept 30, 1996	Sept I-Sept 30, 1996	Sept 20-Nov 30, 1997	Sept 20-Dec 31,
 SPECIES	Pheasant			Mourning Dove	Band- tailed Fizeon	Chukar Partridge	

	Sept 20 1997- Jan 31, 1998	 Carbon, Duchesne, Emery, Garfield, Grand, Kane, Piute, San Juan, Tooele, Uintah, Washington and Wayne counties; Those parts of Beaver, Iron, Juab, Millard, Salt Lake and Utah counties west of 1-15; That part of Box Elder County west of the Locomotive Spring-Snowville- Stone, Idaho Road; That part of Sevier County south of 1-70; In Box Elder County, the Box Elder County Cooperative Wildlife Management Unit as posted and marked. 	Ś	7	
Sage Grouse	Sept 20-Sept 28, 1997	 Grand County; That part of Box Elder County west of the Locomotive Springs-Snowville-Stone, Idaho Road; All of Daggett County except the area beginning on the east shore of Flaming Gorge Reservoir and the Utah/Wyoming state line; then east on this state line to the Utah/Colorado state line; south on this state line to the Green River; northwest on the Green River; and the east shore of Flaming Gorge Reservoir to the Utah/Wyoming state line. All of Duchesne County north and east of the Duchesne River; All of Duchesne County north and east of the Duchesne River; All of Duchesne County north and east of the Utah/Colorado state line; south on this state line to the Green River in Jensen; then east on this highway to the Utah/Colorado state line; south on this state line to the White River; west on this river to the Green River; northeast on this river to US-40. 		2	
	Sept 20-Sept 26, 1997	 Rich County; Parker Mountain - beginning at the junction of Highway US-89 and I-70 near Siguard; south on US-89 to SR-24; south on this highway to SR-62; south on this highway to SR-22; south on this highway to Antimony; south on the John's Valley Road through Widtsoe to Bryce Junction and SR-12; east and north on this highway to SR-24; west on this highway to SR-72 at Loa; north on this highway to I-70; west on this highway to US-89. 	1	7	
Forest Grouse (blue and ruffed)	Sept 20-Nov 30, 1997	◆ Statewide except closed areas.	4	7	 Limits singley or in aggregate.
Quail (California & Gambel's)	Nov 1-Nov 16, 1997	 Box Elder, Carbon, Davis, Grand, Juab, Kane, Millard, Piute, Salt Lake, San Juan, Sevier, Tooele, Utah and Weber counties; Daggett County is closed. All of Ernery County except the Desert Lake Waterfowi Management Area which is closed. 	Ś	7	 Shooting begins at 8:00 a.m. on opening day (Nov 1).
	Nov 1-Dec 31, 1997	◆ Duchesne, Uintah and Washington counties	s	2	

Sept 20-Dec 31, 1997 Sept 20, 1997- Jan 31, 1998 Jan 31, 1998 Jan 31, 1998 blar blar Grouse White- bailed 1997 Plarmagan Sept 20, 1997- Plarmagan Sept 20, 1997- Rabbit Feb 28, 1998	Sept 20-Nov 30, ► Cache, Davis, Morgan, Rich, Summit and Weber countles; 1997 ► That part of Box Fider County east of L15.	Ś	6	
	+ That part of Jush County cast of I-15.			
	◆ That part of Box Elder County east of the Locomotive Springs-Snowville- Stone, Idaho Road and west of I-15.	N.	7	
	 Toocle County. That part of Box Elder County west of the Locomotive Springs-Snowville-Stone, Idaho Road; That part of Juab County west of I-15. In Box Elder County, the Box Elder County Cooperative Wildlife Management Unit as posted and marked. 	w	2	
aal ja	The entire state is closed to hunting of sharp-tailed grouse.			
	◆ Daggett, Duchesne, Summit and Uintah counties.	4	2	 Ptarmigan permit required. Permits are available at all Division offices at no charge.
	 Statewide, except closed areas. 	10	5	
Scot 20, 1997- Hare Feb 28, 1998	♦ Statewide, except closed areas.	5	5	
Jackrabbit (white- tailed & black- tailed)	◆ Jackrabbits are not protected in Utah. They are not under Wildlife Board authority and may be hunted without a license, year-round.	ority and m	ay be hunted s	vithout a license, year-round.

1998 WILD TURKEY SEASON DATES, AREAS OPEN & SEASON LIMITS

RIO GRANDE

HUNT NAME	HUNT NUMBER	SEASON DATES	SEASON	AREAS OPEN
BEAVER (eerly) BEAVER (late)	101a 101b	Apr 11-Apr 24, 1998 Apr 25-May 17, 1998	One Male One Male	Boundary begins at the junction of I-70 and SR-89 to the Garfield-Piute county line; west along this county line to the Beaver-Iron county line; west along this county line to I-15; north on I-15 to I-70; east on I-70 to SR-89.
DUCHESNE COUNTY (841)* DUCHESNE COUNTY (846)*	102a 102b	Apr 11-Apr 24, 1998 Apr 25-May 17, 1998	One Mate One Mate	Ail of Duchesne County, except the Strawberry River crainage above Starvation Reservoir, which is closed.
WEST EMERY COUNTY"	103	Apr 11-May 17, 1998	One Male	All of Emery County west of US-6 and north of 1-70.
HIMORE	104	Apr 11-May 17, 1998	One Male	Boundary begins at the junction of I-15 and I-70 at Cover Fort, then north on f-15 to US-50 north and west on this highway to SR-125; east and north on this highway to SR-132 at Learnington; east along this highway to I-15 at Nephi; south on this highway to US-50 at Scipic; south and east on this highway to I-70 at Saline; south and west on this highway to I-15 at Cove Fort.
COLORADO RIVER (early)* COLORADO RIVER (late)*	105a 105b	Apr 11-Apr 24, 1998 Apr 25-May 17, 1998	One male One male	Grand County - one mile either side of the Colorado and Dolores rivers from the Colorado state line to Dewey bridge.
GREEN RIVER*	106	Apr 11-May 17, 1998	One Male	Emery and Grand counties - two miles either side of the Green River from the confluence of the Price River to Ten Mile Canyon.
MILFORD THIS HUNTING UNIT IS CLOSED DUE TO SIGNIFICANT WILDFIRES IN SUMMER 1996	107		One Male	Boundary begins at Milford; then north on SR-257 to Negro Mag Wash; east on Negro Mag Wash to Cunningham Wash; south on Cunningham Wash to Wildcat Creek; south on Wildcat Creek to Indian Creek; south on Indian Creek to SR-21; west and north on SR-21 to Milford.
MONROE MOUNTAIN	108	Apr 11-May 17, 1998	One Male	Piute and Sevier counties - boundary begins at Junction and US-89; north on US-89 to Sigurd; south on SR-24 to SR-62; south on SR-62 to the junction of SR-62 and SR-22; west on SR-62 to Junction.
MORGAN-SOUTH RICH*	109	Apr 18-May 17, 1998	One Male	Morgan, Rich, Summit and Weber counties - boundary begins at the junction of I-84 and I-80 near Echo; then northeasterty on I-80 to the Utah-Wyoming state line; north along this state line to SR-16; north on SR- 16 to SR-39 near Woodruff; west on SR-39 to SR-167 (Trappers Loop Road); south on SR-167 to SR-30 at Mountain Green; west on SR-30 to I-84; east on I-84 to I-80.
OGDEN	110	Apr 18-May 17, 1998	One Male	Weber, Box Elder Cache, and Morgan counties - beginning at Hyrum; then east on SR-101 to the Ant Flat Road (at Hardware Ranch); south on this road to SR-39; west and south on SR-381 (the new Trappers Loop Road); south on this highway to I-84; west on I-84 to I-15; north on I-15 to exit 364 and US-91; east and north on US-91 to SR-101; east on this highway to Hyrum.
PINE VALLEY* (eenty) PINE VALLEY* (lette)	111a 111b	Apr 11-Apr 24, 1998 Apr 25-May 17, 1998	One Male One Male	Boundary begins at the junction of I-15 and SR-56; then west on SR-56 to SR-18; then south on SR-18 to I- 15; then north on I-15 to SR-56.
SAN JUAN (eerity) SAN JUAN (lete)	112a 112b	Apr 25-May 5, 1998 May 9-May 31, 1998	One Mate One Mate	Boundary begins at Monticello; then east on US-666 to the Utah-Colorado state line; south on this line to the Navajo Indian Reservation boundary; west on this boundary to Scuth Cottonwood creek; north along this creek and through Allen, Chippean, Deep and Mule canyons to the causeway; north from the causeway through Trough Canyon to North Cottonwood Creek; north on this highway to US-191 south on this highway to Monticello.

UINTAH COUNTY (early)* UINTAH COUNTY (jate)*	113a 113b	Apr 11-Apr 24, 1998 Apr 25-May 17, 1998	One Male One Male	All of Uintah County except that portion south of the White River and east of the Green River below the White River configuence.
UTAH COUNTY (NORTH) (sariy) UTAH COUNTY (NORTH) (late)	114a 114b	Apr 4-Apr 17, 1998 Apr 18-May 10, 1998	One Male One Male	That part of Utah County east of I-15 and north of US-6.
UTAH COUNTY (SOUTH)	115	Apr 25-May 10, 1998	One Male	That part of Utah County east of I-15 and south of US-6.
WASATCH COUNTY	116	Apr 25-May 10, 1998	One Maie	All of Wesatch County
WEST PINE VALLEY	117	Apr 11-May 17, 1998	One Male	fron and Washington counties - boundary begins at St. George and I-15; south on I-15 to the Arizona border; west on the Arizona border to the Nevada border; north on the Nevada border to SR-56; east on SR-56 to Beryl Junction and SR-18; south on SR-18 to St. George.
*HUNTS COMPRISED OF ALL OR LARGELY PRIVATE PROPERTY. ACCESS PRIVATE PROPERTY.	OR LARGELY F	PRIVATE PROPERTY. BEF(FORE APPLYIN	ORE APPLYING FOR THE HUNT, HUNTERS SHOULD OBTAIN WRITTEN PERMISSION FROM THE LANDOWNER TO
HUNT NAME	HUNT	SEASON	SEASON	AREAS OPEN
BOULDER MOUNTAIN (œrhy)	2018 2016	Apr 25-May 5, 1998 May 9-May 31,1998	One Male One Male	Boundary begins at the junction of SR-62, SR-69 and SR-89 near Kingston; then south on SR-89 to the Pink Cliffs Road between Glendate and Cannonville; then east on the Pink Cliffs Road to SR-12; then east and northeast on SR-12 to the Burr Trail Road; then east on the Burr Trail Road to the Capitol Reef National Park boundary; then north along the park boundary to SR-24; then west on SR-24 to SR-62; then south on SR-62 to SR-89.
KOLOB*	502	Apr 25-May 31, 1998	One Male	Area includes everything within the following description except for Zion National Park land; boundary beings at Kannaraville, east on the Kannara. Mountain road to the summit and the head of Crystal Creek; south on Crystal Creek to Deep Creek; south on Deep Creek to SR-9; west on SR-9 to SR-17; west on SR-17 to I- 15; north on I-15 to the Kannarville exit; north on SR-91 to Kannaraville.
LASAL (early) LASAL (late)	203a 203b	Apr 25-May 5, 1998 May 9-May 31, 1998	One Mate One Mate	Boundary begins at the junction of SR-128 and US-191; south on this highway to SR-46; east on this highway to the Lisbon Valley Road; southeast on this road to the Island Mesa Road; east on this road to the Utah-Colorado state line; north on this state line to a point one mile south of the Dolores River; west on a line one mile south of the Dolores River to SR-128; southwest on SR-128 to US-191.
ZIÓN (earty) ZIÓN (iate)	204a 204b	Apr 25-May 5, 1998 May 9-May 31, 1998	One Maie One Male	Boundary beings at Kannaraville; east on the Kannara Mountain Road to the summit and the head of Crystal Creek; then south on Crystal Creek to Deep Creek; south on Deep Creek to the Zion National Park boundary;

Boundary beings at Kannaraville; east on the Kannara Mountain Road to the summit and the head of Crystal Creek; then south on Crystal Creek to Deep Creek; south on Deep Creek to the Zion National Park boundary; east on the park boundary to SR-9; east on SR-9 to SR-89; north on SR-9 to SR-20; west on SR-20 to I-15; south on I-15 to Cedar City; south on SR-91 to Kannrarville. "HUNTS COMPRISED OF ALL OR LARGELY PRIVATE PROPERTY. BEFORE APPLYING FOR THE HUNT, HUNTERS SHOULD OBTAIN WRITTEN PERMISSION FROM THE LANDOWNER TO ACCESS PRIVATE PROPERTY.

	Questionnaires	Total		Useable	<u></u>	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	
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%
1 98 9	12,894	5,135	39.8	5,105	39.6	36.7%
1990	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%
1992	16,472	6,207	37.7	5,977	36.3	45.0%
1993	16,534	6,293	38.1	5,442	32.9	42.6%
1994	15,526	5,433	35.0	5,131	33.0	45.1%
1995	14,777	4,951	33.5	4,866	32.9	41.7%
1996	14,088	4,090	29.0	4,028	28.6	36.2%
1997	13,689	4,488	32.8	4,338	31.7	40.0%

APPENDIX E. Summary of upland game harvest questionnaire returns, 1962-97.