

UTAH BLACK BEAR ANNUAL REPORT 2008



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Annual Performance Report for Federal Aid Projects W-65-M-56 and W-65-M-57

State of Utah
Department of Natural Resources
DIVISION OF WILDLIFE RESOURCES

An Equal Opportunity Employer

James F. Karpowitz
Director

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INTRODUCTION

The black bear harvest report presents black bear harvest and hunter effort trends across the state of Utah, based on data collected from bear hunters and compiled by the Utah Division of Wildlife Resources (Division). This report represents the black bear portion of Federal Aid Project W-65-M, segments 56 and 57, grant agreement periods October 1, 2007 through September 30, 2008 and October 1, 2008 through September 30, 2009, respectively. This Federal Aid project covers the 2008 hunting season. This report presents black bear statewide trends since the 1960s, as well as population trend indicators.

For purposes of effective management, the state of Utah is divided into 30 wildlife management units, which are the same for all hunted species. For black bears, some of these units were combined into larger units in order to provide hunters more opportunity, and a few units were open to pursuit only. Hunt units were managed through a limited entry permit system, where a hunter had to apply for and draw from a pool of limited permits. The hunter was allowed to hunt the entire season, or until the permit was filled. Applicants who drew a limited entry permit were required to wait two years before applying for another permit. The season limit was one bear, and females with cubs, or cubs, were not legal to harvest. An unlimited number of pursuit only permits, valid on any open unit statewide, were also available.

Season dates and management units for black bear harvest and pursuit, Utah 2008.

Season	# of open hunt units	# of open pursuit units	Hunt season dates		Pursuit season dates		
			Spring	Fall	Spring	Summer	Fall
2008	21	21	4/12-5/31, 6/1-6/8*	8/23-9/30, 11/1-11/23	4/12-5/31	7/12-8/13	11/1-11/23

* Extended season units 2/3/4/5, 6/7/8a, 16c, 17a, 17bc only.

METHODS

All successful hunters were required to have their bear checked by a Division office or officer within 48 hours of harvest. At that time, tooth and hair samples were collected, and a permanent tag affixed. Bear harvest information was also collected at that time. Teeth were sectioned and cementum annuli counted by Matson's Lab in Milltown, Montana, to estimate age of harvested bear. Survival rates were estimated using the Chapman-Robson estimator. Ages for bears harvested during the fall season covered in this annual report are not available at the time of publishing. Therefore, mean ages and survival rates are calculated using ages from bears harvested in the spring and the previous fall. Age data for depredation and other mortality are also not available at the time of publishing, so mean ages are calculated using ages from bears harvested from July of the previous year to June 30 of the current year. Age data and survival, beginning with 2006, were adjusted in the 2007 report to reflect this change in methods.

In past years, a black bear harvest mail questionnaire was sent each fall to all bear permit holders. This questionnaire was used to obtain hunter effort information from those who did not harvest a bear. Beginning with the 2000 bear season, this questionnaire was discontinued. As such, numbers of hunters afield each season and bears per hunter were no longer calculated. For

the 2008 spring and summer pursuit seasons, a telephone survey was used to obtain bear pursuit data. No data was collected for the fall pursuit season in 2008.

Harvest data from depredating bears, or bears involved in human safety incidents, were taken from damage reports received from USDA-APHIS Wildlife Services and from bears taken by Division personnel. Livestock operators could kill damaging bears and were required to have the carcass checked by a Division officer within 48 hours. Harvest information was collected at that time.

In 2007, efforts were made to consolidate all historical black bear harvest information for the state of Utah into a single statewide database. As a result, small adjustments to past harvest numbers, statewide and unit-by-unit, were made to the 2007 annual report to reflect updated information. The Utah black bear annual reports since 2007 represent the most complete records of historical black bear harvest in Utah to date.

RESULTS

In 2008, a total of 318 limited entry black bear permits were issued, which includes 19 conservation and convention permits. Hunters harvested 134 bears, for a total of 42% of permits being filled. Of the 134 bears harvested, 90 were taken in spring and 44 in fall. Seven more bears were harvested in 2008 versus 2007. However, the percent permits filled was lower in 2008 because more permits were issued, but was still higher than the historical average of 31%. The average age of bears harvested in 2008 was 5.9 and the estimated survival was 81%, which was slightly up from 2007. The percent of females in the harvest increased from 28% in 2007 to 30% in 2008, which was still below the maximum percentage of females allowed in the harvest in order to maintain a sustainable population. A total of 31 bears were killed as a result of depredation or other mortality, which was the lowest it has been since 1997. More detailed information describing the 2008 black bear harvest and black bear harvest trends can be found in the following tables and figures.

Statewide black bear harvest statistics, Utah 1967–2008.

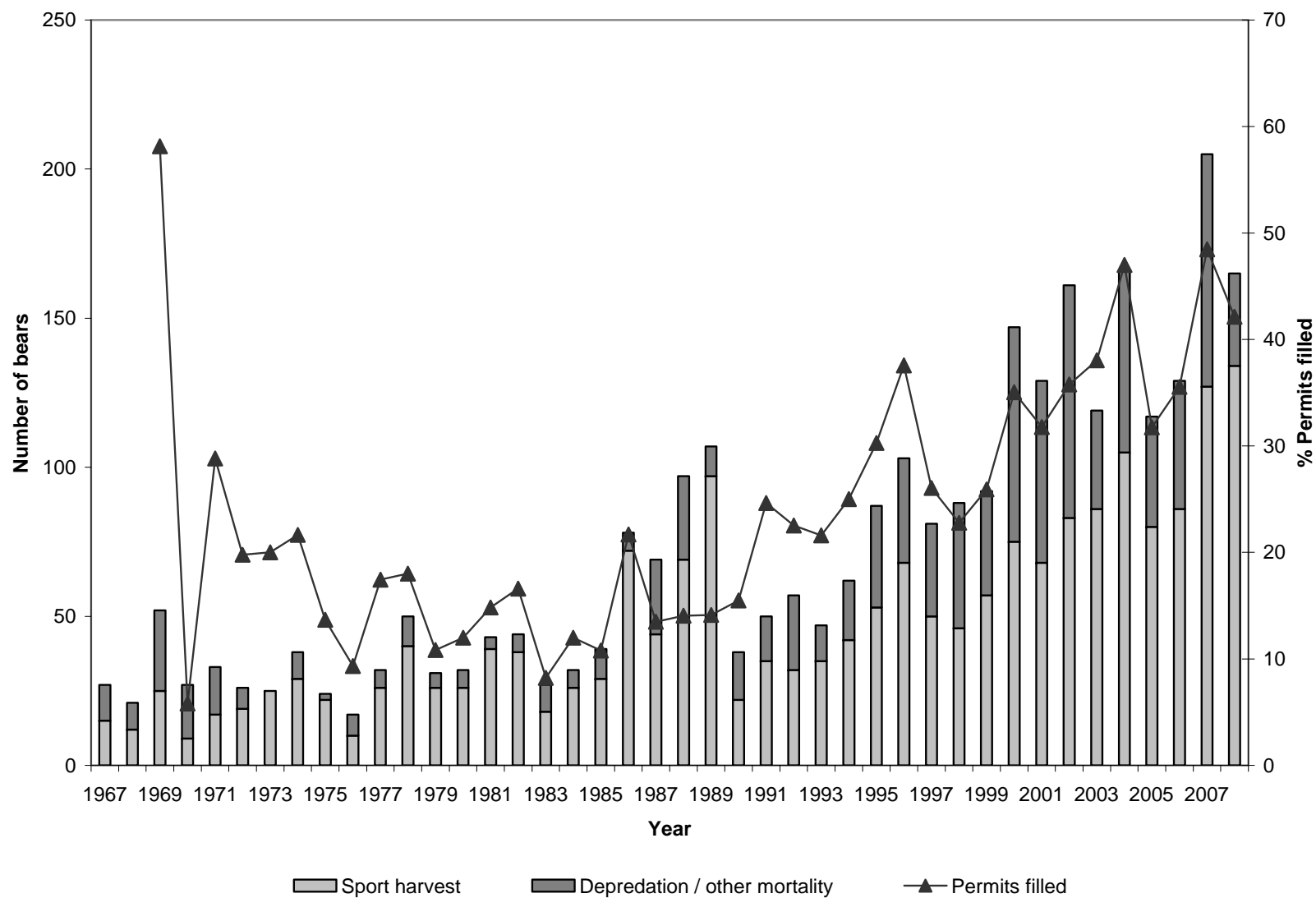
Year	Permits sold	Hunters afield	Sport harvest	Permits filled (%)	Bears per hunter	% females	Depredation / other mortality	Total mortality	Pursuit permits
1967	—	—	15	—	—	—	12	27	—
1968	—	—	12	—	—	—	9	21	—
1969	43	31	25	58	0.81	—	27	52	—
1970	155	119	9	6	0.08	—	18	27	—
1971	59	48	17	29	0.35	—	16	33	—
1972	96	77	19	20	0.25	—	7	26	—
1973	125	114	25	20	0.22	—	0	25	—
1974	134	117	29	22	0.25	—	9	38	—
1975	161	144	22	14	0.15	41	2	24	161
1976	107	96	10	9	0.10	42	7	17	48
1977	149	127	26	17	0.20	33	6	32	77
1978	222	185	40	18	0.22	33	10	50	114
1979	240	196	26	11	0.13	19	5	31	91
1980	217	177	26	12	0.15	28	6	32	95
1981	263	227	39	15	0.17	30	4	43	95
1982	229	188	38	17	0.20	39	6	44	93
1983	219	176	18	8	0.10	44	9	27	98
1984	217	184	26	12	0.14	31	6	32	33
1985	269	230	29	11	0.13	27	10	39	86
1986	332	302	72	22	0.24	45	6	78	90
1987	326	262	44	13	0.17	35	25	69	156
1988	491	394	69	14	0.18	35	28	97	173
1989	687	556	97	14	0.17	30	10	107	187

Statewide black bear harvest statistics, Utah 1967–2008 (cont).

Year	Permits sold	Hunters afield	Sport harvest	Permits filled (%)	Bears per hunter	% females	Depredation / other mortality	Total mortality	Pursuit permits
1990	142	119	22	15	0.18	18	16	38	355
1991	142	119	35	25	0.29	23	15	50	364
1992	142	124	32	23	0.26	19	25	57	524
1993	162	136	35	22	0.26	51	12	47	570
1994	168	153	42	25	0.27	40	20	62	552
1995	175	156	53	30	0.34	34	34	87	627
1996	181	174	68	38	0.39	43	35	103	630
1997	192	176	50	26	0.28	44	31	81	638
1998	202	181	46	23	0.25	42	42	88	635
1999	220	199	57	26	0.29	30	35	92	264
2000	214	194	75	35	0.39	35	72	147	285
2001	214	—	68	32	—	37	61	129	340
2002	232	—	83	36	—	33	78	161	359
2003	226	—	86	38	—	31	33	119	378
2004	240	—	105	47	—	21	61	166	373
2005	252	—	80	32	—	23	37	117	414
2006	242	—	86	36	—	33	43	129	353
2007	262	—	127	48	—	28	78	205	363
2008	318	—	134	42	—	30	31	165	391
Total	8667	—	2017	—	—	—	997	3014	10012
Average	217	178	48	24	0.24	33	24	72	295

* Beginning in 1999, a bear only pursuit permit was issued. Prior to 1999, cougar/bear pursuit permits were issued.

Statewide black bear mortality, Utah 1967–2008.



Statewide black bear spring and fall sport harvest by unit / subunit, Utah 2008.

Unit	Permits issued				Spring harvest		Fall harvest		Total harvest	% permits filled	% females	Mean age of harvest
	Spring	Fall	Cons/Conv	Total	Male	Female	Male	Female				
2/3/4/5	2	2	0	4	0	0	0	0	0	0	—	—
6/7/8a	6	5	0	11	1	0	0	0	1	9	0	2.0
8bc	5	2	0	7	1	0	0	1	2	29	50	3.0
9a	10	7	1	18	0	3	2	1	6	33	67	5.6
9bcd	10	5	1	16	6	1	3	0	10	63	10	5.1
10	14	4	1	19	9	1	3	1	14	74	14	6.2
11ab	16	12	2	30	5	2	1	1	10	33	30	6.5
13ab	20	10	4	34	9	5	4	2	20	59	35	6.4
14	23	10	3	36	12	2	6	3	23	64	22	7.1
16a	8	4	0	12	2	1	3	0	6	50	17	3.2
16b	12	4	1	17	4	1	1	1	7	41	29	3.7
16c	8	3	1	12	1	1	0	1	3	25	67	3.5
17a	18	8	1	27	3	5	0	1	9	33	67	8.7
17bc	13	6	1	20	3	0	1	1	5	25	20	6.2
21/22	4	2	0	6	2	1	0	0	3	50	33	8.0
23	1	1	0	2	0	0	0	0	0	0	—	—
24	1	1	0	2	1	0	0	0	1	50	0	7.0
25ab	3	3	0	6	1	0	0	0	1	17	0	—
25c/26	12	12	1	25	2	2	4	2	10	40	40	3.0
27	1	1	0	2	0	0	0	0	0	0	—	—
28/29	5	5	1	11	2	0	0	0	3	27	0	8.0
Statewide total	192	107	19	318	64	25	28	15	134	42	30%	5.9

* Mean age of harvest is based on bears harvested fall 2007 and spring 2008.

Total harvest includes one fall harvest and one spring harvest of unknown sex, that are not included in the season totals.

Statewide black bear depredation and other mortality by unit / subunit, Utah 2008.

Unit	Wildlife Services / DWR Control			Other mortality			Total mortality
	Male	Female	Unknown	Male	Female	Unknown	
2/3/4/5	1	0	0	0	0	0	1
6/7/8a	3	1	0	0	0	0	4
8bc	0	0	0	0	0	0	0
9a	0	1	0	0	0	0	1
9bcd	1	0	0	0	0	0	1
10	0	0	0	0	0	0	0
11ab	1	0	0	0	0	0	1
13ab	1	0	0	1	1	0	3
14	1	0	0	0	0	0	1
16a	0	2	0	1	0	0	3
16b	0	0	0	0	0	0	0
16c	0	0	0	0	0	0	0
17a	2	2	3	1	0	0	8
17bc	0	0	2	1	0	0	3
21/22	0	0	0	1	1	0	2
23	0	0	0	0	0	0	0
24	1	0	0	0	0	0	1
25ab	0	0	0	0	0	0	0
25c/26	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0
28/29	0	0	2	0	0	0	2
Statewide total	11	6	7	5	2	0	31

* Other mortality includes highway mortality, poaching, and unknown mortality.

Historic statewide black bear pursuit statistics, Utah 2002–2008.

Year	Spring			Summer / Fall		
	Pursuers	Bears / pursuit-day	Bears / pursuer	Pursuers	Bears / pursuit-day	Bears / pursuer
2002	318	0.46	7.48	—	—	—
2003	291	0.49	8.68	228	0.52	6.21
2004	309	0.43	5.04	212	0.45	5.85
2005	256	0.41	4.97	436	0.33	2.72
2006	328	0.29	3.69	—	—	—
2007	329	0.54	6.52	157	0.62	4.25
2008	313	0.62	7.80	238	0.93	5.42
Average	306	0.46	6.31	254	0.50	4.56

* Spring 2002 includes summer/fall 2001 and spring 2002.

** Spring 2003 includes summer/fall 2002 and spring 2003.

*** Since 2007, summer/fall only includes summer season.

Statewide spring black bear pursuit statistics by unit / subunit, Utah 2008.

Unit	n	Pursuers afield	Pursuit- days afield	Number of bears treed					Bears treed / pursuit-day	Bears treed / pursuer
				Males	Females	Cubs	Unknown	Total		
6/7/8a	0	0	0	0	0	0	0	0	—	—
8bc	4	13	62	10	13	0	16	39	0.63	3.00
9a	2	7	20	7	10	8	7	32	1.60	4.57
9bcd	16	52	479	127	140	23	23	313	0.65	6.02
10	24	78	798	201	172	113	55	541	0.68	6.94
11ab	6	20	186	49	33	20	29	131	0.70	6.55
13ab	14	46	417	125	140	68	65	398	0.95	8.65
14	27	88	792	137	176	87	98	498	0.63	5.66
16a	7	23	140	33	20	0	10	63	0.45	2.74
16b	5	16	78	7	20	13	10	50	0.64	3.13
16c	8	26	153	23	23	0	10	56	0.37	2.15
17a	11	36	225	20	36	7	23	86	0.38	2.39
17bc	5	16	134	13	29	7	26	75	0.56	4.69
21/22	7	23	143	29	33	0	10	72	0.50	3.13
23	0	0	0	0	0	0	0	0	—	—
24	0	0	0	0	0	0	0	0	—	—
25ab	1	3	20	0	3	0	0	3	0.15	1.00
25c/26	7	23	108	26	7	3	0	36	0.33	1.57
27	1	3	10	0	0	0	0	0	0.00	0.00
28/29	3	10	176	29	16	0	3	48	0.27	4.80
Unknown unit	1	3	3	0	0	0	0	0	0.00	0.00
Statewide total	96	313	3944	836	871	349	385	2441	0.62	7.80

* Totals for sample size and pursuers afield are not the sum of the columns because pursuers could pursue on multiple units.

** 120 permit holders surveyed; 391 permits sold as of July 31, 2008; Projection factor = 3.26

*** 20% of permit holders did not pursue spring season

Statewide summer black bear pursuit statistics by unit / subunit, Utah 2008.

Unit	n	Pursuers afield	Pursuit- days afield	Number of bears treed					Bears treed / pursuit-day	Bears treed / pursuer
				Males	Females	Cubs	Unknown	Total		
2/3/4/5	2	7	16	3	0	0	0	3	0.19	0.43
6/7/8a	0	0	0	0	0	0	0	0	—	—
8bc	3	10	39	13	7	0	7	27	0.69	2.70
9a	2	7	23	0	3	7	3	13	0.57	1.86
9bcd	10	33	102	30	102	51	26	209	2.05	6.33
10	18	59	368	186	179	23	49	437	1.19	7.41
11ab	2	7	26	13	13	0	3	29	1.12	4.14
14	18	59	345	114	127	36	42	319	0.92	5.41
16a	3	10	42	3	3	0	3	9	0.21	0.90
16b	3	10	13	3	13	0	3	19	1.46	1.90
16c	3	10	78	10	7	0	16	33	0.42	3.30
17a	6	20	55	3	10	3	0	16	0.29	0.80
17bc	8	26	111	25	20	11	8	64	0.58	2.46
21/22	4	13	59	10	13	0	0	23	0.39	1.77
23	0	0	0	0	0	0	0	0	—	—
24	0	0	0	0	0	0	0	0	—	—
25ab	1	3	0	3	7	0	0	10	—	3.33
25c/26	2	7	59	3	7	3	0	13	0.22	1.86
27	1	3	0	3	3	3	0	9	—	3.00
28/29	2	7	46	7	0	0	0	7	0.15	1.00
Unknown unit	2	7	0	7	32	8	3	50	—	7.14
Statewide total	73	238	1382	436	546	145	163	1290	0.93	5.42

* Totals for sample size and pursuers afield are not the sum of the columns because pursuers could pursue on multiple units.

** 120 permit holders surveyed; 391 permits sold as of July 31, 2008; Projection factor = 3.26

*** 39% of permit holders did not pursue summer season; 63% of permit holders indicated that they intend to pursue fall season

Black bear harvest by method of take, Utah 2001–2008.

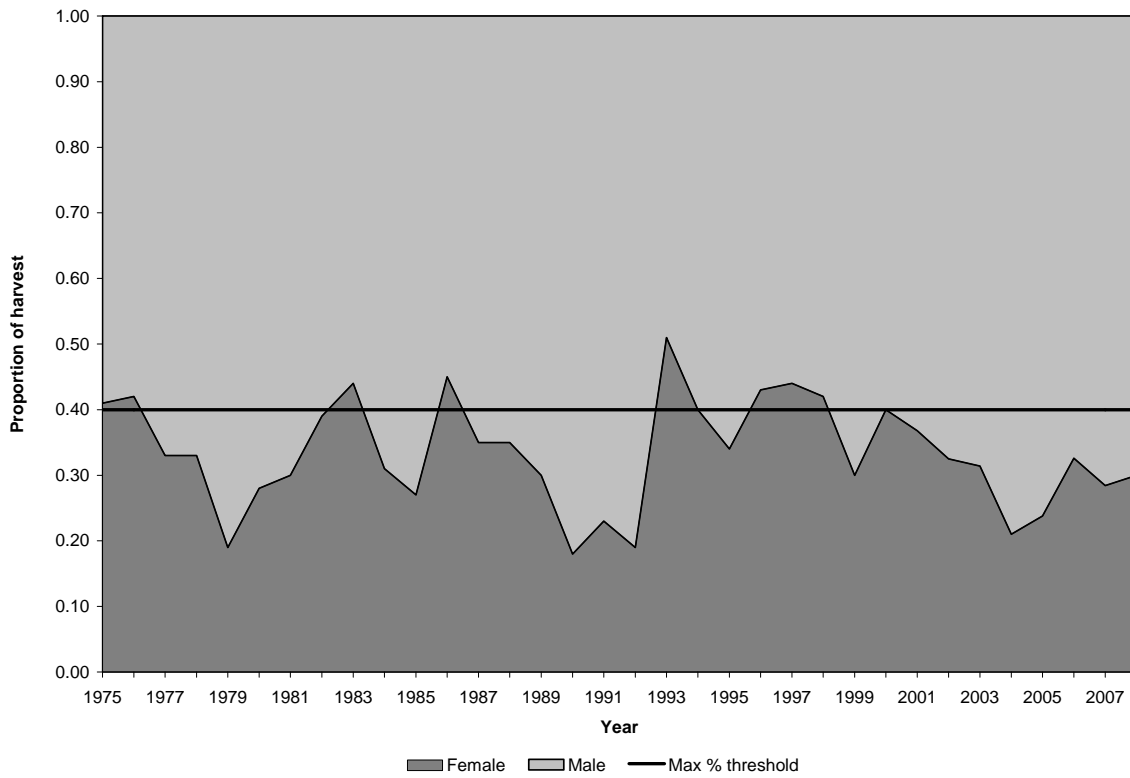
Year	Method of take					Total	% using archery	% hunters using guides
	Bait	Dogs	Calls	Stalk	Unknown			
2001	4	44	1	3	16	68	12	41
2002	7	59	0	1	16	83	18	33
2003	10	60	0	0	16	86	26	22
2004	18	68	2	8	9	105	31	37
2005	6	67	1	2	4	80	26	29
2006	5	66	0	9	6	86	21	41
2007	15	95	0	9	8	127	26	32
2008	20	94	1	16	3	134	31	33

Adult black bear survival estimated with Chapman-Robson estimator, Utah 1996–2008.

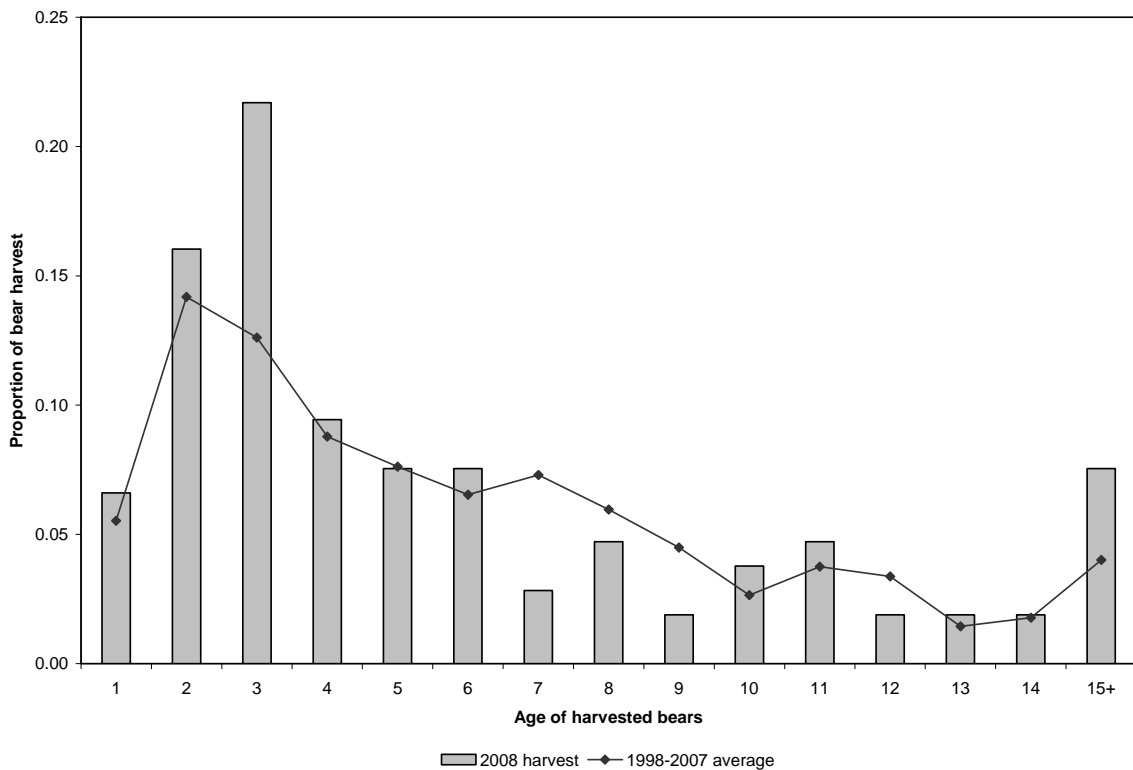
Year	n	Adult survival (%)	95% confidence interval
1996	83	79.4	75.4–83.4
1997	60	78.0	73.0–83.0
1998	54	77.7	72.4–83.0
1999	—	82.0	77.7–86.2
2000	83	80.9	77.2–84.6
2001	98	81.5	78.2–84.8
2002	130	81.2	78.3–84.1
2003	68	83.6	80.0–87.2
2004	115	82.4	79.5–85.4
2005	58	83.6	79.7–87.5
2006	62	85.0	81.5–88.5
2007	109	80.2	76.8–83.5
2008	99	81.0	77.7–84.4

* Survival rates since 2001 are estimated using ages from bears harvested in the spring and the previous fall.

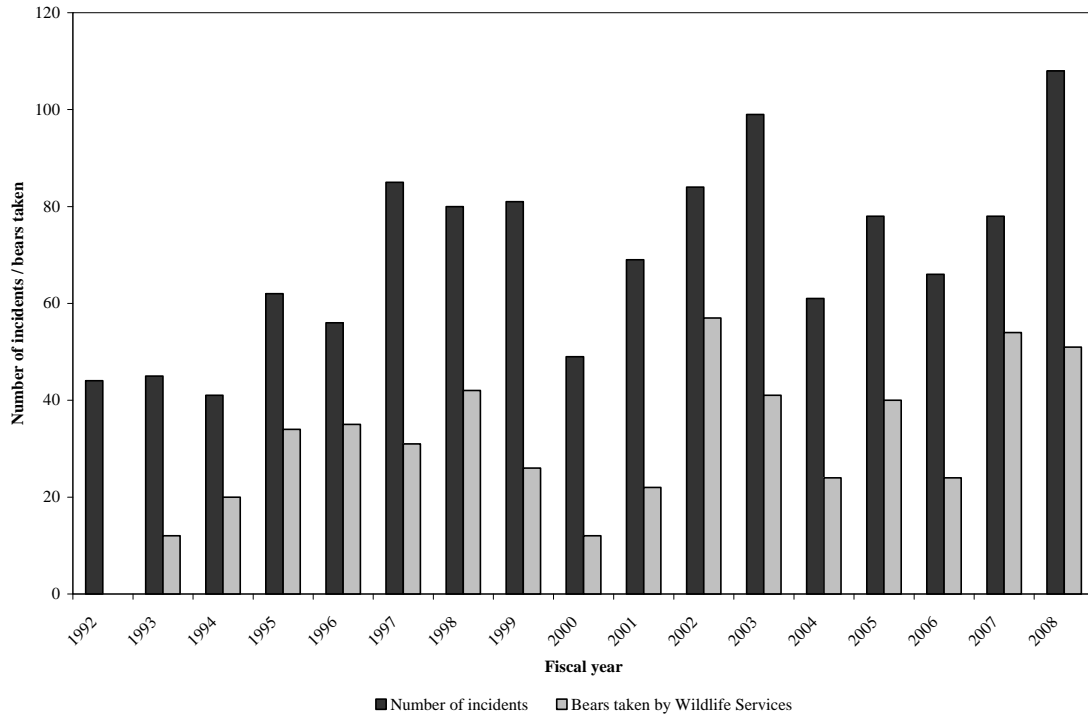
Sex ratio of black bear sport harvest, Utah 1975–2008.



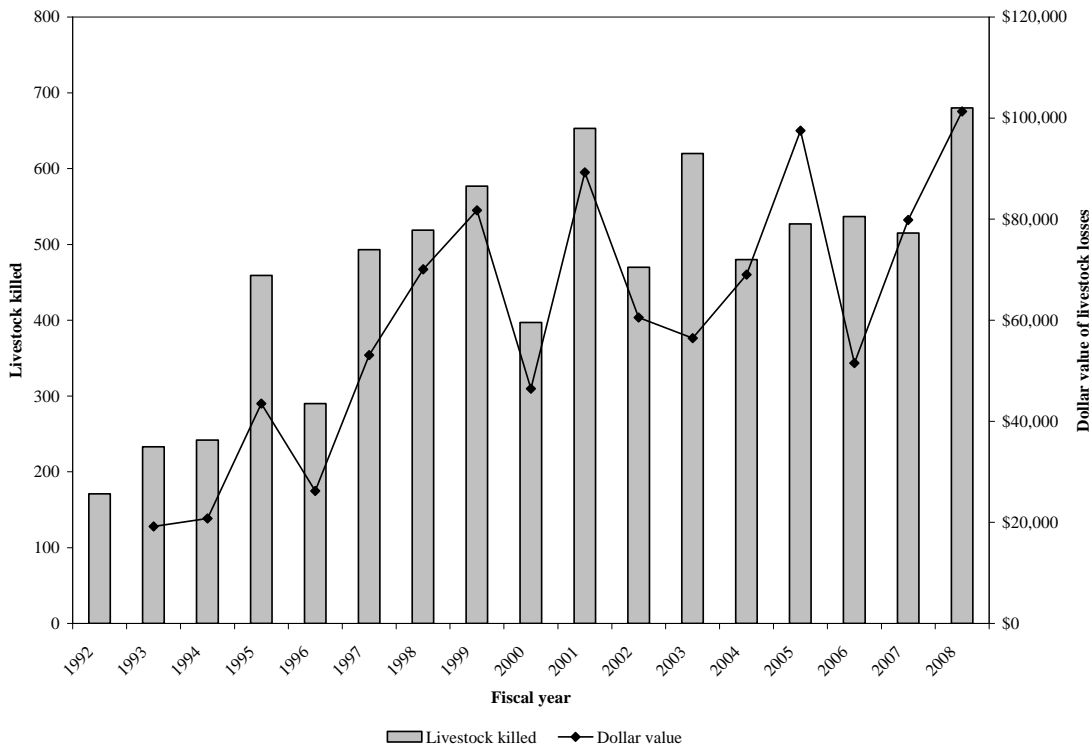
Proportion of black bears harvested by age class, Utah 2008.



Livestock depredation incidents and black bears killed by Wildlife Services, Utah 1992–2008.



Livestock losses due to black bear depredation, Utah 1992–2008.



APPENDIX A

HISTORIC STATEWIDE BLACK BEAR HARVEST

Statewide black bear mortality, Utah 1990–2008.

Year	Sport harvest									Depredation / other mortality				Total				
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age	Adult survival
		Male	Female	Male	Female													
1990	142			18	4	0	22	15	18	—	20	5	0	25	47	19	—	—
1991	142			27	8	0	35	25	23	—	12	7	0	19	54	28	—	—
1992	142			26	6	0	32	23	19	—	20	14	0	34	66	30	—	—
1993	162			17	18	0	35	22	51	—	11	3	0	14	49	43	—	—
1994	168			25	17	0	42	25	40	—	16	9	0	25	67	39	—	—
1995	175			35	18	0	53	30	34	—	30	15	0	45	98	34	—	—
1996	181			39	29	0	68	38	43	—	40	6	0	46	114	31	5.1	0.78
1997	192			28	22	0	50	26	44	—	26	5	0	31	81	33	5.2	0.78
1998	202			26	19	1	46	23	41	—	24	9	9	42	88	32	5.1	0.78
1999	222			40	17	0	57	26	30	—	18	11	6	35	92	30	5.6	0.82
2000	214			45	30	0	75	35	40	—	62	6	4	72	147	24	5.7	0.82
2001	214	17	3	24	22	2	68	32	37	6.9	39	21	1	61	129	36	6.2	0.79
2002	232	30	6	23	21	3	83	36	33	6.8	43	27	8	78	161	34	6.6	0.83
2003	226	27	12	32	15	0	86	38	31	7.4	22	8	3	33	119	29	6.9	0.83
2004	240	30	7	53	15	0	105	44	21	6.6	34	23	4	61	166	27	6.4	0.82
2005	252	14	3	47	16	0	80	32	24	6.6	16	17	4	37	117	31	6.4	0.84
2006	242	36	20	22	8	0	86	36	33	6.8	20	16	7	43	129	34	6.7	0.86
2007	262	60	19	31	17	0	127	48	28	5.7	46	24	8	78	205	29	5.6	0.80
2008	318	64	25	28	15	2	134	42	30	5.9	16	8	7	31	165	29	4.9	0.81
Total	3928	278	95	586	317	8	1284	—	—	—	515	234	61	810	2094	—	—	—
Mean	207	35	12	31	17	0.4	68	31	33	6.4	27	12	3	43	110	31	6.1	0.81

APPENDIX B

HISTORIC BLACK BEAR HARVEST BY HUNT UNIT

Black bear mortality for Units 2, 3, 4, and 5 – Cache, Ogden, Morgan-Rich, and East Canyon, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1991	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1992	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1993	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1994	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1995	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1996	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1997	1			0	0	0	0	0	—	—	1	0	0	1	1	0	—
1998	1			0	0	0	0	0	—	—	0	0	1	1	1	0	—
1999	1			0	0	0	0	0	—	—	1	0	0	1	1	0	—
2000	1			1	0	0	1	100	0	3.0	0	0	0	0	1	0	3.0
2001	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2002	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2003	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2004	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2005	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2006	2	0	0	0	0	0	0	0	—	—	0	0	1	1	1	0	10.0
2007	2	0	0	0	0	0	0	0	—	—	2	1	0	3	3	33	—
2008	4	0	0	0	0	0	0	0	—	—	1	0	0	1	1	0	4.0
Total	24	0	0	1	0	0	1	—	—	—	5	1	2	8	9	—	—
Mean	1.3	0.0	0.0	0.1	0.0	0.0	0.1	4	0	3.0	0.3	0.1	0.1	0.4	0.5	11	6.5

*Unit 2 was pursuit only in 2003.

**Unit 5 was added to units 2, 3, and 4 in 2004.

Black bear mortality for Units 6, 7, and 8a – Chalk Creek, Kamas, and North Slope, Summit, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	3			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1991	3			0	0	0	0	0	—	—	1	0	0	1	1	0	—
1992	3			1	0	0	1	33	0	—	0	0	0	0	1	0	—
1993	3			0	0	0	0	0	—	—	3	0	0	3	3	0	—
1994	3			0	0	0	0	0	—	—	0	1	0	1	1	100	—
1995	3			0	0	0	0	0	—	—	4	0	0	4	4	0	—
1996	2			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1997	2			1	0	0	1	50	0	—	3	0	0	3	4	0	—
1998	2			0	1	0	1	50	100	—	4	1	0	5	6	33	5.7
1999	2			0	0	0	0	0	—	—	3	1	0	4	4	25	—
2000	2			0	1	0	1	50	100	—	3	0	0	3	4	25	1.0
2001	2			0	0	0	0	0	—	—	6	7	0	13	13	54	3.6
2002	2			0	0	0	0	0	—	—	6	1	0	7	7	14	2.0
2003	2			1	0	0	1	50	0	—	2	1	0	3	4	25	7.3
2004	5			1	0	0	1	20	0	2.0	1	3	0	4	5	60	3.0
2005	5			2	1	0	3	60	33	2.5	2	1	2	5	8	25	4.3
2006	8	1	0	1	0	0	2	25	0	4.3	3	0	0	3	5	0	4.9
2007	8	2	0	1	0	0	3	38	0	2.0	8	3	0	11	14	21	5.3
2008	11	1	0	0	0	0	1	9	0	2.0	3	1	0	4	5	20	6.3
Total	71	4	0	8	3	0	15	—	—	—	52	20	2	74	89	—	—
Mean	3.7	1.3	0.0	0.4	0.2	0.0	0.8	21	20	2.8	2.7	1.1	0.1	3.9	4.7	26	4.3

Black bear mortality for Units 8b and 8c – North Slope, Daggett / Three Corners, Utah 1998–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1998	4			0	0	0	0	0	—	—	0	0	0	0	0	—	
1999	4			1	0	0	1	25	0	1.0	0	0	0	0	1	0	1.0
2000	4			0	0	0	0	0	—	—	2	0	0	2	0	—	
2001	4			0	0	0	0	0	—	—	1	0	0	1	0	—	
2002	4			0	0	0	0	0	—	—	2	2	0	4	4	50	3.0
2003	4			1	0	0	1	25	0	7.0	0	0	0	0	1	0	7.0
2004	4			0	0	0	0	0	—	—	1	0	0	1	1	0	2.0
2005	4			1	1	0	2	50	50	6.0	0	0	0	0	2	50	6.0
2006	5	0	0	1	0	0	1	20	0	7.0	0	0	0	0	1	0	7.0
2007	5	0	0	1	1	0	2	40	50	4.0	0	0	0	0	2	50	4.0
2008	7	1	0	0	1	0	2	29	50	3.0	0	0	0	0	2	50	3.0
Total	49	1	0	5	3	0	9	—	—	—	6	2	0	8	17	—	—
Mean	4.5	0.3	0.0	0.5	0.3	0	0.8	18	33	6.3	0.5	0.2	0.0	0.7	1.5	29	4.1

Black bear mortality for Unit 9 – South Slope (all subunits), Utah 1990–2001.

Year	Sport harvest									Depredation / other mortality				Total			
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	16			2	1	0	3	19	33	—	1	2	0	3	6	50	—
1991	16			4	0	0	4	25	0	—	1	1	0	2	6	17	—
1992	16			2	1	0	3	19	33	—	4	2	0	6	9	33	—
1993	16			4	1	0	5	31	20	—	1	0	0	1	6	17	—
1994	16			3	1	0	4	25	25	—	1	0	0	1	5	20	—
1995	16			3	2	0	5	31	40	—	6	1	0	7	12	25	—
1996	17			3	0	0	3	18	0	—	4	2	0	6	9	22	—
1997	18			1	1	0	2	11	50	—	3	0	0	3	5	20	—
1998	14			1	2	0	3	21	67	—	3	2	3	8	11	36	11.7
1999	14			5	1	0	6	43	17	—	2	1	0	3	9	22	8.5
2000	14			4	1	0	5	36	20	—	3	0	0	3	8	13	7.8
2001	14			2	2	0	4	29	50	2.6	6	5	1	12	16	44	5.4
Total	187	—	—	34	13	0	47	—	—	—	35	16	4	55	102	—	—
Mean	15.6	—	—	2.8	1.1	0.0	3.9	25	28	2.6	2.9	1.3	0.3	4.6	8.5	28	5.0

Black bear mortality for Units 9a – South Slope, Yellowstone, Utah 2002–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
2002	6			1	1	1	3	50	33	6.7	0	0	0	0	3	33	6.7
2003	7			0	2	0	2	29	100	11.0	0	0	0	0	2	100	11.0
2004	6			1	2	0	3	50	67	12.3	1	2	0	3	6	67	12.3
2005	12			4	1	0	5	42	20	4.0	0	1	0	1	6	33	5.2
2006	12	1	0	2	2	0	5	42	40	4.2	1	1	0	2	7	43	5.1
2007	14	1	0	1	2	0	4	29	50	2.3	3	1	1	5	9	33	2.3
2008	18	0	3	2	1	0	6	33	67	5.6	0	1	0	1	7	71	4.7
Total	75	2	3	11	11	1	28	—	—	—	5	6	1	12	40	—	—
Mean	10.7	0.7	1.0	1.6	1.6	0.1	4.0	37	50	8.0	0.7	0.9	0.1	1.7	5.7	50	7.7

Black bear mortality for Units 9b, 9c, and 9d – South Slope, Vernal / Diamond Mountain / Bonanza, Utah 2002–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
2002	10			0	2	1	3	30	67	2.7	2	1	0	3	6	50	2.5
2003	9			2	2	0	4	44	50	7.3	0	1	1	2	6	50	8.2
2004	10			5	2	0	7	70	29	4.6	0	1	0	1	8	38	4.6
2005	12			6	1	0	7	58	14	7.3	0	0	0	0	7	14	7.3
2006	10	3	1	1	1	0	6	60	33	8.3	0	0	0	0	6	33	8.3
2007	12	3	0	3	2	0	8	67	25	6.8	1	2	0	3	11	36	6.8
2008	16	6	1	3	0	0	10	63	10	5.1	1	0	0	1	11	9	5.9
Total	79	12	2	20	10	1	45	—	—	—	4	5	1	10	55	—	—
Mean	11.3	4.0	0.7	2.9	1.4	0.1	6.4	57	27	6.1	0.6	0.7	0.1	1.4	7.9	31	6.1

Black bear mortality for Unit 10 – Book Cliffs, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	18			1	2	0	3	17	67	—	3	0	0	3	6	33	—
1991	18			5	2	0	7	39	29	—	0	0	0	0	7	29	—
1992	18			5	1	0	6	33	17	—	2	0	0	2	8	13	—
1993	18			3	4	0	7	39	57	—	0	0	0	0	7	57	—
1994	18			4	4	0	8	44	50	—	1	0	0	1	9	44	—
1995	18			11	1	0	12	67	8	—	2	0	0	2	14	7	—
1996	18			8	2	0	10	56	20	—	1	0	0	1	11	18	—
1997	18			5	3	0	8	44	38	—	0	0	0	0	8	38	—
1998	30			3	4	0	7	23	57	—	0	0	0	0	7	57	5.2
1999	30			9	1	0	10	33	10	—	1	1	0	2	12	17	6.2
2000	29			7	7	0	14	48	50	—	9	3	0	12	26	38	6.5
2001	15			5	3	0	8	53	38	6.8	1	0	0	1	9	33	6.8
2002	25			7	5	0	12	48	42	7.3	1	0	1	2	14	36	7.3
2003	25			4	5	0	9	36	56	8.0	2	0	1	3	12	42	8.3
2004	25			10	3	0	13	52	23	5.9	2	2	0	4	17	29	5.9
2005	30			5	3	0	8	27	38	7.3	0	0	0	0	8	38	7.3
2006	15	4	0	1	0	0	5	33	0	7.5	0	0	0	0	5	0	7.5
2007	15	7	1	1	0	0	9	60	11	9.8	0	0	0	0	9	11	9.8
2008	19	9	1	3	1	0	14	74	14	6.2	0	0	0	0	14	14	6.2
Total	402	20	2	97	51	0	170	—	—	—	25	6	2	33	203	—	—
Mean	21.2	6.7	0.7	5.1	2.7	0.0	8.9	42	31	7.2	1.3	0.3	0.1	1.7	10.7	29	7.2

Black bear mortality for Unit 11a and 11b – Nine Mile, Anthro / Range Creek, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	44			14	0	0	14	32	0	—	6	0	0	6	20	0	—
1991	22			3	2	0	5	23	40	—	1	1	0	2	7	43	—
1992	22			6	0	0	6	27	0	—	4	1	0	5	11	9	—
1993	27			0	4	0	4	15	100	—	0	0	0	0	4	100	—
1994	27			3	7	0	10	37	70	—	4	2	0	6	16	56	—
1995	24			3	4	0	7	29	57	—	3	3	0	6	13	54	—
1996	24			6	6	0	12	50	50	—	5	2	0	7	19	42	—
1997	20			2	2	0	4	20	50	—	1	0	0	1	5	40	—
1998	20			4	1	0	5	25	20	—	0	0	0	0	5	20	3.4
1999	20			2	1	0	3	15	33	—	0	0	0	0	3	33	2.7
2000	20			4	4	0	8	40	50	—	9	0	0	9	17	24	8.3
2001	15	3	0			0	3	20	0	8.3	1	0	0	1	4	0	7.8
2002	20	7	0			0	7	35	0	5.0	2	3	0	5	12	25	5.0
2003	20	7	2			0	9	45	22	12.0	0	0	0	0	9	22	12.0
2004	20	7	2			0	9	45	22	7.6	6	4	0	10	19	32	8.7
2005	20	2	0			0	2	10	0	6.5	0	0	0	0	2	0	6.5
2006	22	4	1	1	0	0	6	27	17	10.3	0	0	1	1	7	14	10.3
2007	26	4	4	1	2	0	11	42	55	5.4	2	3	0	5	16	56	5.4
2008	29	5	2	1	1	1	10	34	30	6.5	1	0	0	1	11	27	6.2
Total	442	39	11	50	34	1	135	—	—	—	45	19	1	65	200	—	—
Mean	23.3	4.9	1.4	3.6	2.4	0.1	7.1	31	33	7.4	2.4	1.0	0.1	3.4	10.5	32	7.1

Black bear mortality for Units 13a and 13b – La Sal, La Sal Mountains / Dolores Triangle, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	10			1	0	0	1	10	0	—	2	0	0	2	3	0	—
1991	10			6	1	0	7	70	14	—	1	0	0	1	8	13	—
1992	10			1	1	0	2	20	50	—	1	0	0	1	3	33	—
1993	12			4	1	0	5	42	20	—	0	0	0	0	5	20	—
1994	12			8	0	0	8	67	0	—	0	0	0	0	8	0	—
1995	12			3	3	0	6	50	50	—	0	0	0	0	6	50	—
1996	16			6	5	0	11	69	45	—	2	0	0	2	13	38	—
1997	20			6	8	0	14	70	57	—	6	0	0	6	20	40	—
1998	20			6	5	0	11	55	45	—	0	0	1	1	12	42	5.0
1999	20			5	4	0	9	45	44	—	0	0	0	0	9	44	4.8
2000	19			4	6	0	10	53	60	—	2	0	0	2	12	50	7.3
2001	30	13	3			0	16	53	19	8.1	2	0	0	2	18	17	7.4
2002	30	17	4			0	21	70	19	6.9	3	0	0	3	24	17	7.0
2003	30	13	5			0	18	60	28	9.0	1	0	0	1	19	26	9.0
2004	30	12	3			0	15	50	20	7.9	0	1	0	1	16	25	7.9
2005	30	8	2			0	10	33	20	7.0	0	3	0	3	13	38	5.7
2006	30	4	6	2	0	0	12	40	50	9.1	0	0	0	0	12	50	7.3
2007	30	14	4	3	4	0	25	83	32	4.5	0	0	0	0	25	32	4.5
2008	32	9	5	4	2	0	20	63	35	6.4	2	1	0	3	23	35	6.4
Total	403	90	32	59	40	0	221	—	—	—	22	5	1	28	249	—	—
Mean	21.2	11.3	4.0	4.2	2.9	0.0	11.6	55	33	7.1	1.2	0.3	0.1	1.5	13.1	31	6.8

Black bear mortality for Unit 14 – San Juan, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	16			4	1	0	5	31	20	—	0	0	0	0	5	20	—
1991	16			3	0	0	3	19	0	—	0	0	0	0	3	0	—
1992	16			3	0	0	3	19	0	—	1	0	0	1	4	0	—
1993	16			0	4	0	4	25	100	—	0	0	0	0	4	100	—
1994	16			4	0	0	4	25	0	—	0	0	0	0	4	0	—
1995	16			5	4	0	9	56	44	—	0	1	0	1	10	50	—
1996	20			9	6	0	15	75	40	—	2	1	0	3	18	39	—
1997	20			4	3	0	7	35	43	—	2	0	0	2	9	33	—
1998	20			6	3	1	10	50	30	—	0	0	0	0	10	30	6.1
1999	20			4	1	0	5	25	20	—	0	0	0	0	5	20	9.8
2000	19			9	2	0	11	58	18	—	2	0	0	2	13	15	3.7
2001	30			12	7	1	20	67	35	7.3	4	3	0	7	27	37	7.6
2002	30			10	5	0	15	50	33	8.1	3	0	0	3	18	28	8.1
2003	30			10	3	0	13	43	23	7.4	0	0	0	0	13	23	7.4
2004	30			18	1	0	19	63	5	8.4	0	0	0	0	19	5	8.4
2005	30			8	6	0	14	47	43	9.1	1	2	0	3	17	47	9.0
2006	29	8	6	2	1	0	17	59	41	9.2	2	1	0	3	20	40	9.0
2007	34	9	2	8	1	0	20	59	15	9.1	0	0	0	0	20	15	8.9
2008	34	12	2	6	3	0	23	68	22	7.1	1	0	0	1	24	21	7.1
Total	442	29	10	125	51	2	217	—	—	—	18	8	0	26	243	—	—
Mean	23.3	9.7	3.3	6.6	2.7	0.1	11.4	49	28	7.9	0.9	0.4	0.0	1.4	12.8	28	7.8

Black bear mortality for Unit 16a – Central Mountains, Nebo, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	3			0	0	0	0	0	—	—	2	0	0	2	2	0	—
1991	3			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1992	3			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1993	6			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1994	6			0	0	0	0	0	—	—	1	0	0	1	1	0	—
1995	6			0	0	0	0	0	—	—	3	0	0	3	3	0	—
1996	6			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1997	6			0	0	0	0	0	—	—	1	0	0	1	1	0	—
1998	6			1	0	0	1	17	0	—	0	0	0	0	1	0	1.0
1999	6			1	1	0	2	33	50	—	0	0	0	0	2	50	6.0
2000	6			2	1	0	3	50	33	—	1	0	0	1	4	25	4.5
2001	6			0	1	1	2	33	50	2.5	0	0	0	0	2	50	2.5
2002	6			2	1	0	3	50	33	6.0	1	0	1	2	5	20	7.5
2003	8			4	0	0	4	50	0	3.0	1	0	0	1	5	0	3.0
2004	8			2	1	0	3	38	33	3.5	1	0	0	1	4	25	5.3
2005	8			5	0	0	5	63	0	1.8	0	1	0	1	6	17	2.3
2006	9	1	0	0	1	0	2	22	50	2.9	0	0	0	0	2	50	3.1
2007	8	2	1	2	1	0	6	75	33	5.0	1	2	0	3	9	44	5.0
2008	12	2	1	3	0	0	6	50	17	3.2	1	2	0	3	9	33	4.1
Total	122	5	2	22	7	1	37	—	—	—	13	5	1	19	56	—	—
Mean	6.4	1.7	0.7	1.2	0.4	0.1	1.9	30	24	3.7	0.7	0.3	0.1	1.0	2.9	25	4.2

Black bear mortality for Unit 16b – Central Mountains, North Manti, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	16			1	0	0	1	6	0	—	3	1	0	4	5	20	—
1991	16			2	0	0	2	13	0	—	2	2	0	4	6	33	—
1992	16			2	0	0	2	13	0	—	4	7	0	11	13	54	—
1993	20			0	2	0	2	10	100	—	1	1	0	2	4	75	—
1994	22			0	0	0	0	0	—	—	1	0	0	1	1	0	—
1995	22			2	0	0	2	9	0	—	1	3	0	4	6	50	—
1996	21			1	2	0	3	14	67	—	6	0	0	6	9	22	—
1997	21			2	2	0	4	19	50	—	5	3	0	8	12	42	—
1998	20			0	1	0	1	5	100	—	4	0	1	5	6	17	3.8
1999	25			3	3	0	6	24	50	—	2	5	0	7	13	62	4.7
2000	25			1	3	0	4	16	75	—	3	0	0	3	7	43	4.3
2001	22			1	5	0	6	27	83	3.5	5	0	0	5	11	45	2.9
2002	16			1	3	1	5	31	60	10.0	1	1	2	4	9	44	10.0
2003	16			0	1	0	1	6	100	5.0	2	0	0	2	3	33	4.5
2004	16			4	1	0	5	31	20	3.0	6	1	0	7	12	17	3.7
2005	16			7	0	0	7	44	0	3.7	1	1	0	2	9	11	3.7
2006	16	1	2	2	0	0	5	31	40	3.3	1	0	0	1	6	33	3.3
2007	15	7	0	2	0	0	9	60	0	3.9	4	2	0	6	15	13	3.6
2008	17	4	1	1	1	0	7	41	29	3.7	0	0	0	0	7	29	3.7
Total	358	12	3	32	24	1	72	—	—	—	52	27	3	82	154	—	—
Mean	18.8	4.0	1.0	1.7	1.3	0.1	3.8	20	38	4.4	2.7	1.4	0.2	4.3	8.1	35	4.2

Black bear mortality for Unit 16c – Central Mountains, South Manti, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	17			2	0	0	2	12	0	—	0	0	0	0	2	0	—
1991	17			1	2	0	3	18	67	—	0	0	0	0	3	67	—
1992	17			4	1	0	5	29	20	—	1	1	0	2	7	29	—
1993	18			2	2	0	4	22	50	—	0	0	0	0	4	50	—
1994	20			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1995	20			1	0	0	1	5	0	—	0	1	0	1	2	50	—
1996	20			2	2	0	4	20	50	—	1	0	0	1	5	40	—
1997	20			1	1	0	2	10	50	—	1	1	0	2	4	50	—
1998	16			3	0	0	3	19	0	—	1	3	0	4	7	43	7.5
1999	20			1	0	0	1	5	0	—	1	1	0	2	3	33	4.3
2000	20			2	1	0	3	15	33	—	10	2	0	12	15	20	1.7
2001	18			2	1	0	3	17	33	5.0	7	2	0	9	12	25	5.2
2002	12			1	0	0	1	8	0	3.0	2	2	0	4	5	40	3.0
2003	12			3	0	0	3	25	0	7.3	1	1	1	3	6	17	6.0
2004	12			3	1	0	4	33	25	3.0	5	3	0	8	12	33	5.2
2005	11			4	0	0	4	36	0	2.8	1	1	0	2	6	17	3.4
2006	11	3	1	1	1	0	6	55	33	4.0	3	1	0	4	10	30	4.2
2007	11	2	2	2	1	0	7	64	43	3.7	1	1	2	4	11	36	3.6
2008	12	1	1	0	1	0	3	25	67	3.5	0	0	0	0	3	67	3.5
Total	304	6	4	35	14	0	59	—	—	—	35	20	3	58	117	—	—
Mean	16.0	2.0	1.3	1.8	0.7	0.0	3.1	19	31	4.0	1.8	1.1	0.2	3.1	6.2	32	4.7

Black bear mortality for Unit 17 – Wasatch Mountains (all subunits), Utah 1990–2000.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	26	—	—	7	0	0	7	27	0	—	6	4	0	10	17	24	—
1991	11	—	—	1	0	0	1	9	0	—	2	0	0	2	3	0	—
1992	11	—	—	1	1	0	2	18	50	—	0	0	0	0	2	50	—
1993	14	—	—	1	2	0	3	21	67	—	1	1	0	2	5	60	—
1994	14	—	—	2	1	0	3	21	33	—	0	2	0	2	5	60	—
1995	14	—	—	2	0	0	2	14	0	—	3	2	0	5	7	29	—
1996	14	—	—	2	3	0	5	36	60	—	9	0	0	9	14	21	—
1997	10	—	—	1	1	0	2	20	50	—	2	0	0	2	4	25	—
1998	26	—	—	0	1	0	1	4	100	—	9	1	4	14	15	13	2.6
1999	35	—	—	5	2	0	7	20	29	—	5	2	6	13	20	20	3.9
2000	34	—	—	4	2	0	6	18	33	—	17	0	0	17	23	9	4.5
Total	209	—	—	26	13	0	39	—	—	—	54	12	10	76	115	—	—
Mean	19.0	—	—	2.4	1.2	0.0	3.5	19	33	—	4.9	1.1	0.9	6.9	10.5	22	3.7

Black bear mortality for Unit 17a – Wasatch Mountains, West, Utah 2001–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
2001	20	1	0			0	1	5	0	12.0	3	2	0	5	6	33	5.7
2002	20	4	2			0	6	30	33	8.2	7	9	2	18	24	46	6.5
2003	20	5	5			0	10	50	50	—	6	0	0	6	16	31	5.5
2004	20	5	0			0	5	25	0	5.0	3	4	2	9	14	29	4.1
2005	19	3	1			0	4	21	25	5.3	6	4	1	11	15	33	5.6
2006	19	4	0	2	1	0	7	37	14	4.5	4	4	1	9	16	31	4.1
2007	22	1	2	2	1	0	6	27	50	4.2	10	6	5	21	27	33	4.0
2008	27	3	5	0	1	0	9	33	67	8.7	3	2	3	8	17	47	5.6
Total	167	26	15	4	3	0	48	—	—	—	42	31	14	87	135	—	—
Mean	20.9	3.3	1.9	1.3	1.0	0.0	6.0	29	38	5.7	5.3	3.9	1.8	10.9	16.9	36	4.7

Black bear mortality for Units 17b and 17c – Wasatch Mountains, Currant Creek / Avintaquin, Utah 2001–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
2001	14	0	0			0	0	0	—	—	0	0	0	0	0	—	—
2002	14	2	0			0	2	14	0	3.0	3	6	2	11	13	46	6.6
2003	14	2	0			0	2	14	0	—	3	2	0	5	7	29	5.2
2004	14	6	2			0	8	57	25	2.6	3	1	0	4	12	25	2.5
2005	14	1	0			0	1	7	0	2.0	1	1	0	2	3	33	6.5
2006	16	1	0	1	1	0	3	19	33	5.0	6	5	3	14	17	35	7.0
2007	16	0	1	0	2	0	3	19	100	2.7	7	2	0	9	12	42	2.9
2008	20	3	0	1	1	0	5	25	20	6.2	1	0	2	3	8	13	6.0
Total	122	15	3	2	4	0	24	—	—	—	24	17	7	48	72	—	—
Mean	15.3	1.9	0.4	0.7	1.3	0.0	3.0	20	29	2.7	3.0	2.1	0.9	6.0	9.0	33	4.1

Black bear mortality for Unit 21 and 22 – Fillmore, Pahvant and Beaver, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1991	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1992	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1993	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1994	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1995	1			1	0	0	1	100	0	—	0	0	0	0	1	0	—
1996	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1997	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1998	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1999	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2000	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2001	1			1	0	0	1	100	0	5.0	0	0	0	0	1	0	5.0
2002	1			0	0	0	0	0	—	—	1	2	0	3	3	67	—
2003	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2004	1			1	0	0	1	100	0	7.0	0	0	0	0	1	0	7.0
2005	1			0	1	0	1	100	100	13.0	0	0	0	0	1	100	13.0
2006	2	1	0	0	0	0	1	50	0	8.5	0	0	0	0	1	0	8.5
2007	2	0	0	0	0	0	0	0	—	—	1	1	0	2	2	50	—
2008	6	2	1	0	0	0	3	50	33	8.0	1	1	0	2	5	40	4.3
Total	26	3	1	3	1	0	8	—	—	—	3	4	0	7	15	—	—
Mean	1.4	1.0	0.3	0.2	0.1	0.0	0.4	31	25	7.2	0.2	0.2	0.0	0.4	0.8	40	6.7

* Unit 21 was added to 22 to become 21/22 in 2008

Black bear mortality for Unit 23 - Monroe, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1991	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1992	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1993	1			0	0	0	0	0	—	—	1	0	0	1	1	—	—
1994	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1995	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1996	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1997	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1998	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1999	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2000	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2001	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2002	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2003	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2004	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2005	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2006	0			—	—	—	—	—	—	—	0	0	0	0	0	—	—
2007	1	0	0	0	0	0	0	0	—	—	0	0	0	0	0	—	—
2008	2	0	0	0	0	0	0	0	—	—	0	0	0	0	0	—	—
Total	19	0	0	0	0	0	0	—	—	—	1	0	0	1	1	—	—
Mean	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0	—	—	0.1	0.0	0.0	0.1	0.1	—	—

*Unit was pursuit only during 2006.

Black bear mortality for Unit 24 – Mt. Dutton, Utah 2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
2008	2	1	0	0	0	0	1	50	0	7.0	1	0	0	1	2	0	7.0
Total	2	1	0	0	0	0	1	—	—	—	1	0	0	1	2	—	—
Mean	2.0	1.0	0.0	0.0	0.0	0.0	1.0	50	0	7.0	1.0	0.0	0.0	1.0	2.0	0	7.0

Black bear mortality for Units 25a and 25b – Plateau, Fish Lake / Thousand Lakes, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	3			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1991	3			1	0	0	1	33	0	—	0	0	0	0	1	0	—
1992	3			1	0	0	1	33	0	—	0	0	0	0	1	0	—
1993	3			1	0	0	1	33	0	—	1	0	0	1	2	0	—
1994	3			0	0	0	0	0	—	—	2	1	0	3	3	33	—
1995	4			2	1	0	3	75	33	—	1	1	0	2	5	40	—
1996	4			1	2	0	3	75	67	—	0	0	0	0	3	67	—
1997	4			3	0	0	3	75	0	—	0	0	0	0	3	0	—
1998	4			1	0	0	1	25	0	—	0	0	0	0	1	0	2.0
1999	4			1	0	0	1	25	0	—	0	0	0	0	1	0	2.0
2000	4			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2001	4			0	0	0	0	0	—	—	1	1	0	2	2	50	—
2002	4			0	1	0	1	25	100	2.0	0	0	0	0	1	100	2.0
2003	4			3	0	0	3	75	0	5.3	1	0	0	1	4	0	4.5
2004	6			0	2	0	2	33	100	11.5	0	0	0	0	2	100	11.5
2005	6			2	0	0	2	33	0	7.0	1	0	0	1	3	0	7.0
2006	6	0	0	0	0	0	0	0	—	7.0	0	0	0	0	0	—	7.0
2007	6	1	0	0	0	0	1	17	0	6.0	0	0	0	0	1	0	6.0
2008	6	1	0	0	0	0	1	17	0	—	0	0	0	0	1	0	—
Total	81	2	0	14	6	0	24	—	—	—	7	3	0	10	34	—	—
Mean	4.3	0.7	0.0	0.9	0.4	0.0	1.3	30	25	6.8	0.4	0.2	0.0	0.5	1.8	26	6.3

Black bear mortality for Unit 25c – Plateau, Boulder, Utah 1990–2003.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	3	—	—	0	0	0	0	0	—	—	1	0	0	1	1	0	—
1991	3	—	—	0	1	0	1	33	100	—	0	0	0	0	1	100	—
1992	3	—	—	1	0	0	1	33	0	—	0	0	0	0	1	0	—
1993	4	—	—	2	0	0	2	50	0	—	0	2	0	2	4	50	—
1994	5	—	—	0	1	0	1	20	100	—	2	2	0	4	5	60	—
1995	6	—	—	3	2	0	5	83	40	—	1	0	0	1	6	33	—
1996	8	—	—	2	2	0	4	50	50	—	3	0	0	3	7	29	—
1997	8	—	—	2	1	0	3	38	33	—	0	0	0	0	3	33	—
1998	8	—	—	1	1	0	2	25	50	—	2	0	0	2	4	25	4.0
1999	8	—	—	2	2	0	4	50	50	—	1	0	0	1	5	40	8.8
2000	8	—	—	3	1	0	4	50	25	—	0	0	0	0	4	25	5.8
2001	8	—	—	1	2	0	3	38	67	7.6	1	0	1	2	5	40	7.6
2002	8	—	—	2	2	0	4	50	50	3.0	1	0	0	1	5	40	3.0
2003	8	—	—	3	0	0	3	38	0	5.0	1	3	0	4	7	43	5.5
Total	88	—	—	22	15	0	37	—	—	—	13	7	1	21	58	—	—
Mean	6.3	—	—	1.6	1.1	0.0	2.6	42	41	5.2	0.9	0.5	0.1	1.5	4.1	38	5.8

Black bear mortality for Unit 26 - Kaiparowits, Utah 2000–2003.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
2000	1	—	—	1	0	0	1	100	0	4.0	0	0	0	0	1	0	—
2001	1	—	—	0	0	0	0	0	—	—	0	0	0	0	0	—	—
2002	1	—	—	0	0	0	0	0	—	—	1	0	0	0	1	0	—
2003	1	—	—	0	1	0	1	100	100	13.0	0	0	0	0	1	100	13.0
Total	4	—	—	1	1	0	2	—	—	—	1	0	0	0	3	—	—
Mean	1.0	—	—	0.3	0.3	0.0	0.5	50	50	8.5	0.3	0.0	0.0	0.0	0.8	33	13.0

Black bear mortality for Units 25c and 26 – Plateau, Boulder and Kaiparowits, Utah 2004–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
2004	17			6	2	0	8	47	25	8.3	2	0	2	4	12	17	8.4
2005	17			2	2	0	4	24	50	4.8	1	1	1	3	7	43	6.6
2006	16	0	1	5	0	0	6	38	17	6.2	0	4	1	5	11	45	7.2
2007	22	7	1	3	0	0	11	50	9	7.4	6	0	0	6	17	6	8.6
2008	25	2	2	4	2	0	10	40	40	3.0	0	0	0	0	10	40	3.6
Total	97	9	4	20	6	0	39	—	—	—	9	5	4	18	57	—	—
Mean	19.4	3.0	1.3	4.0	1.2	0.0	7.8	40	26	7.2	1.8	1.0	0.8	3.6	11.4	26	7.7

Black bear mortality for Unit 27 - Paunsaugunt, Utah 2003–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
2003	1			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2004	1			0	0	0	0	0	—	—	0	1	0	1	1	100	—
2005	2			1	0	0	1	50	0	3.0	0	0	0	0	1	0	3.0
2006	2	0	1	0	0	0	1	50	100	3.0	0	0	0	0	1	100	3.0
2007	2	0	0	0	0	0	0	0	—	—	0	0	0	0	0	—	—
2008	2	0	0	0	0	0	0	0	—	—	0	0	0	0	0	—	—
Total	10	0	1	1	0	0	2	—	—	—	0	1	0	1	3	—	—
Mean	1.7	0.0	0.3	0.2	0.0	0.0	0.3	20	50	3.0	0.0	0.2	0.0	0.2	0.5	67	3.0

Black bear mortality for Units 28 and 29 – Panguitch Lake and Zion, Utah 1990–2008.

Year	Sport harvest										Depredation / other mortality				Total		
	Permits issued	Spring		Fall		Unknown	Total	% permits filled	% females	Mean age	Male	Female	Unknown	Total	Harvest + mortality	% females	Mean age
		Male	Female	Male	Female												
1990	3			0	0	0	0	—	—	1	0	0	1	1	0	—	
1991	3			1	0	0	1	33	0	—	2	0	0	2	3	0	—
1992	3			0	0	0	0	0	—	—	2	0	0	2	2	0	—
1993	3			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1994	4			1	0	0	1	25	0	—	1	0	0	1	2	0	—
1995	8			1	0	0	1	13	0	—	1	1	0	2	3	33	—
1996	8			0	0	0	0	0	—	—	4	0	0	4	4	0	—
1997	8			0	0	0	0	0	—	—	0	0	0	0	0	—	—
1998	8			0	0	0	0	0	—	—	1	0	0	1	1	0	—
1999	8			0	1	0	1	13	100	5.7	2	0	0	2	3	33	—
2000	6			0	0	0	0	0	—	—	0	0	0	0	0	—	—
2001	6			0	1	0	1	17	100	19.0	0	1	0	1	2	100	19.0
2002	6			0	1	0	1	17	100	11.0	5	0	0	5	6	17	11.0
2003	11			1	1	0	2	18	50	5.3	2	0	0	2	4	25	5.3
2004	12			2	0	0	2	17	0	8.0	3	0	0	3	5	0	4.0
2005	12			0	0	0	0	0	—	—	2	1	0	3	3	33	4.3
2006	11	0	1	0	0	0	1	9	100	4.0	0	0	0	0	1	100	5.3
2007	10	0	1	1	0	0	2	20	50	1.0	0	0	0	0	2	50	1.0
2008	11	2	0	0	0	1	3	27	0	8.0	0	0	2	2	5	0	8.0
Total	141	2	2	7	4	1	16	—	—	—	26	3	2	31	47	—	—
Mean	7.2	0.0	1.0	0.4	0.3	0.1	0.8	11	38	7.4	1.4	0.2	0.1	1.6	2.5	19	5.4