

IDAHO DEPARTMENT OF FISH AND GAME

Steven M. Huffaker, Director

Project W-170-R-28

Progress Report



BLACK BEAR

Study I, Job 9

July 1, 2003 to June 30, 2004

Prepared by:

Jim Hayden, Dave Spicer..... Panhandle Region
Jay Crenshaw, Dave Koehler..... Clearwater Region
Jeff Rohlman..... Southwest Region
Randy Smith, Bruce Palmer..... Magic Valley Region
Daryl Meints, Jeff Short..... Upper Snake Region
Tom Keegan..... Salmon Region

Compiled and edited by: Steve Nadeau, Wildlife Staff Biologist

September 2004
Boise, Idaho



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**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Black Bear Surveys and</u>
PROJECT:	<u>W-170-R-28</u>		<u>Inventories</u>
SUBPROJECT:	<u>1-7</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>9</u>		<u>Habitat Studies</u>
PERIOD COVERED: <u>July 1, 2003 to June 30, 2004</u>			

STATEWIDE

Abstract

There are 21 Data Analysis Units (DAUs) for black bear management in Idaho (Figure 1). The Idaho Department of Fish and Game has collected harvest information on black bears since 1983 using a mandatory check. The mandatory check program requires successful hunters to check the hide and skull of their black bear at a Department office or checkpoint within ten days of kill. A tooth is pulled, data on kill are collected, and a pelt tag is attached.

During 2003, 28,606 resident and 3,373 non-resident bear tags were sold, accounting for 31,979 total tags sold which was a 2.6 % increase from 2002. A total of 3,033 hound-hunting permits (25 more than 2002), including 129 non-resident and 2,904 resident permits, were issued during 2003. Non-resident hound-hunting permits decreased slightly (five) and residents increased by 30 in 2003. Non-resident permit numbers can only be increased in the remote wilderness units while the rest of the state is restricted to 75 permits. The Department issued 1,760 bear-baiting permits in 2003, a 12% increase from 2002.

Successful black bear hunters checked 2,426 bears at Department regional offices or checkpoints, about the same as 2002. The Panhandle Region accounted for 689 bears (28%), the Clearwater Region 880 (36%), the Southwest Region 477 (20%), the Magic Valley Region 54 (2%), the Southeast and Upper Snake regions combined for 165 (7%), and the Salmon Region accounted for 161 (7%) bears. Of the bears harvested, 1,328 (55%) were harvested in the spring and 1,098 (45%) were harvested in the fall. Males comprised 65% of the spring harvest and 59% of the fall harvest. The most common harvest technique used was still hunting, accounting for 735 (30%) of the bears harvested, followed by hound hunting which accounted for 665 (27%), and bait hunting which accounted for 513 (21%) of the bears harvested. Rifle hunters checked 1,962 bears while archery hunters checked 311 bears. During 2003, hunters using guides increased harvest 31% to 488 with most being harvested over bait. Outfitters were engaged in an effort to reduce black bear numbers in north-central Idaho. The above data were collected at the statewide level and may be different than data presented at the regional level in the following document.

North Idaho bear populations are closely tied to huckleberry productivity. In 1998, a huckleberry failure resulted in increased bear problems and fall harvest. Additionally, females entered the dens in poor condition in the fall of 1998, and cub survival and production was reduced in 1999. However, more females without cubs were available to be bred and, therefore, synchronous breeding occurred. In 2000, a large number of cubs were produced and in 2001, a pulse of one-year-olds was seen in the harvest. By 2002, large pulses of two-year-old dispersers were seen in the harvest from the Panhandle down to the Salmon River. These two-year-olds reduced the age structure of the harvest in 2002. The lack of young bears in the harvest since 1999 also resulted in increased age structure of the harvest until 2002. In 2003, that pulse of cubs born in 2000 showed up as three-year-olds in the harvest. These synchronous pulses must be monitored and recognized to understand and interpret age structures in the harvest.

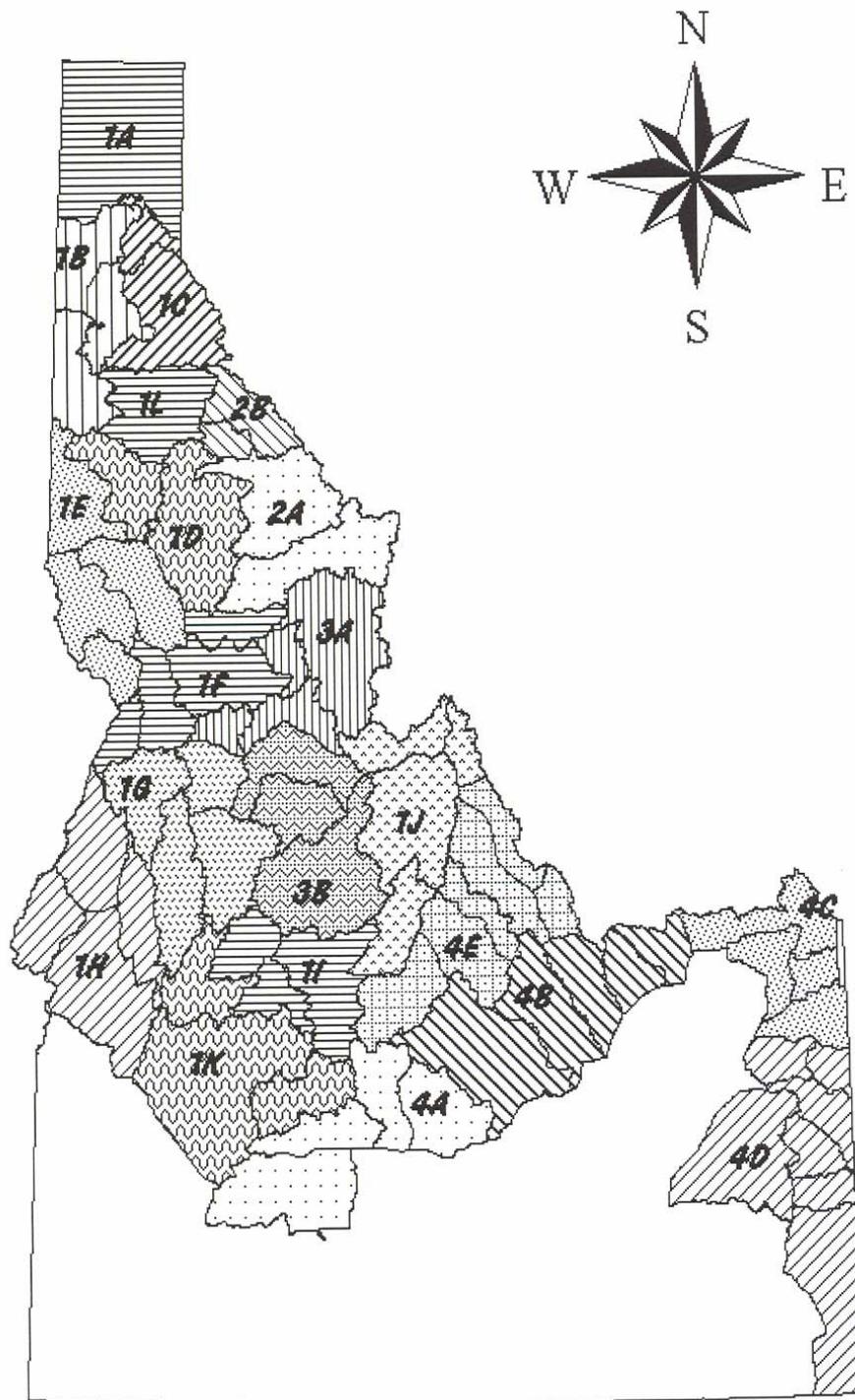


Figure 1. Twenty-one Data Analysis Units for black bear management in Idaho.

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STATE:	<u>Idaho</u>	JOB TITLE:	<u>Black Bear Surveys and</u>
PROJECT:	<u>W-170-R-28</u>		<u>Inventories</u>
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JOB:	<u>9</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2003 to June 30, 2004</u>		

PANHANDLE REGION

Abstract

The reported harvest of 698 black bears in the Panhandle Region in 2003 was the third highest since the mandatory check began in 1984. Female harvest (259) was 21% above that of 2002 and nearly 50% above the 2000-2002 average. Male harvest (428) was 2% below that of 2002 but 20% above the 2000-2002 average. Two recorded kills had no information as to sex of the bear.

Only DAU 1B met both management criteria during the past three years. This DAU, including Game Management Units (GMUs) 2, 3, and 5, is managed for heavy harvest due to the high human population in this area. DAU 1A, managed for a light harvest, did not meet one of the two criteria, with harvest slightly heavier than desired. DAU 1L, managed for an intermediate level of harvest, did not meet one of the two criteria, with harvest slightly lighter than desired. DAU 1C did not meet either of the two management criteria. Harvest rates in DAU 1C were lighter than the heavy harvest desired. DAU 2B met one of the harvest criteria. Harvest rates in DAU 2B were higher than desired in the criteria of percent males greater than five years-of-age in the harvest. The Department has been attempting heavier harvest rates in DAU 1C to see if management criteria are responsive to changes in seasons. DAU 2B has traditionally been managed under a light harvest objective, but this was changed to an intermediate harvest objective in 1998 in order to attempt to increase calf elk recruitment. Recruitment has improved since 1998, but no substantial changes have been observed in bear management criteria for the DAU.

AREA ONE

Management Direction

The Department will offer a variety of hunting opportunities in Area One. DAUs within the area include all harvest categories as defined in the 2000-2010 Black Bear Management Plan. The “reservoir concept” is not a major influence affecting Area One. That is, harvest data reflect true population characteristics and no reservoir of un-harvested black bears exists to disperse into

hunted areas. A controlled hunt allowing use of dogs is provided in a portion of Unit 1 outside the grizzly bear recovery area.

The Panhandle Region includes four DAUs in Area One. DAU 1A is one of two DAUs statewide managed for light bear harvest characteristics. DAUs 1C and 1L are managed for moderate harvest objectives, while DAU 1B is managed under heavy harvest objectives.

DAU 1A (GMU 1)

Abstract

Reported harvest of black bear in DAU 1A was 234 during 2003, substantially higher than a year ago, and 49% above the previous three-year average. Harvest characteristics indicate this population is not over-harvested and is very near meeting “light” harvest management objectives. The percentage of males in the harvest exceeding four years-of-age (48%) is well above the target of 35%, and the percentage of females in the harvest (31%) barely misses the target of less than 30%.

Management Direction

DAU 1A will be managed to maintain the light harvest targets of <30% females in the harvest and >35% of the males \geq 5 years old.

Background

Black bear management is heavily influenced by grizzly bear management needs in this DAU, as it includes parts of the Selkirk and Cabinet-Yaak Grizzly Bear Recovery areas. Consequently, this DAU has been closed to use of bait since 1984 and to the use of hounds since 1988. In 1991, a small controlled hunt allowing use of hounds was initiated in a portion of DAU 1A outside of these recovery areas.

In general, dense conifer habitat types characterize this DAU. The climate produces an abundance of huckleberries. Portions of the Selkirk, Cabinet, and Purcell ranges are included in this DAU, with the broad Kootenai River Valley providing the only substantial agricultural area. Overall, DAU 1A contains some of the highest quality black bear habitat in Idaho.

Harvest Characteristics

Both spring and fall harvest exceeded the previous years harvest and the previous three-year average (Table 1).

Because bait is prohibited in this DAU and hounds are restricted to a small controlled hunt, most of the harvest is by still-hunting. Ninety percent of the 2003 black bear harvest in DAU 1A was by hunters specifically seeking and stalking black bear (Table 2).

Nearly all (92%) of the black bears in DAU 1A are killed with rifles (Table 3).

Sex Ratio/Age Structure

Despite the increase in harvest, the composition of the harvest does not indicate problems. The 2003 harvest was composed of 34% females, just slightly higher than the target of less than 30% females in the harvest. Analysis of age structure indicates large cohorts in 1994, 1996, and 2000, with 48% of male bears five years-of-age and older in the harvest (Table 4).

Dog-training Seasons

No dog-training season is permitted in DAU 1A (Table 5) to prevent possible encounters with grizzly bears in and around the Selkirk and Cabinet/Yaak Recovery Areas.

Management Implications

No changes in hunting seasons are indicated by examination of management criteria (Table 6). The three-year average of 31% females in the harvest is very close to and moving toward management objective. Within the male harvest, 48% are age five years and older, meeting management objectives. There are no known problems with low calf elk or fawn deer ratios in this DAU.

DAU 1B (GMUs 2, 3, 5)

Abstract

Reported black bear harvest in DAU 1B was 147 during 2003, a 24% increase from the previous year and 32% increase from the previous three-year average. Management objectives for a heavy harvest regime are being met in this DAU.

Management Direction

To address depredation concerns, DAU 1B will be managed to maintain the heavy harvest targets of <25% age 5+ black bears in the male harvest and >40% females in the total harvest.

Background

DAU 1B consists largely of developed and highly accessible areas. Mountains in this DAU are not particularly high or rugged. Depredations have been a substantial problem in this DAU, particularly in Unit 2, which consists largely of second-growth coniferous forest under private ownership. Unit 3 is typified by publicly-owned coniferous forest with high road densities in close proximity to Coeur d'Alene. Unit 5 is similar to Unit 2 in the northern third, but the remainder consists largely of open agricultural land with stringers of coniferous forest. Much of Unit 5 is within the boundaries of the Coeur d'Alene Indian Reservation.

Harvest Characteristics

This DAU realized a significant increase in harvest during the 2003 season compared to the previous year and previous three-year average (Table 1).

The majority of bears in this DAU (31%) are taken while hunting over bait. However, 28% are by still hunting and 23% with hounds (Table 2).

Eighty-one percent of the black bears taken in DAU 1B are taken with a rifle (Table 3).

Sex Ratio/Age Structure

Age data indicates large cohorts for 1994, 1996, and 2000 (Table 4). The percentage of females in the 2003 harvest was 46% and the three-year average was 45%. The percentage of males ≥ 5 years old was 24% in 2003 and the three-year average was 23%.

Dog-training Seasons

There is no dog-training season in this DAU (Table 5) due to the high level of private ownership and high recreational use of public lands near Coeur d'Alene.

Management Implications

Both management criteria meet the heavy harvest targets in the 2000-2010 Black Bear Management Plan (Table 6). There are no known problems with low calf or fawn ratios.

DAU 1C (GMUs 4, 4A)

Abstract

Reported black bear harvest in DAU 1C was 152 during 2003, about the same as reported during the recent past. This DAU is targeted for heavy harvest. Harvest criteria indicate this population is currently harvested lightly, and there is room to offer increased hunting opportunity.

Management Direction

To test the validity of the black bear harvest indicators, DAU 1C will be managed to maintain the heavy harvest targets of <25% age 5+ black bears in the male harvest and >40% females in the total harvest.

Background

DAU 1C consists mainly of U.S. Forest Service (USFS) property and a belt of private property in Silver Valley. Much of this DAU was burned by wildfires during the early 1900s. It is a popular hunting area for Coeur d'Alene and Silver Valley big game hunters. Road densities are moderate to very high.

Harvest Characteristics

The 2003 harvest of 152 black bears was roughly the same as that of 2002 but 21% higher than during previous three-year average (Table 1).

Bears taken by hunters stalking bears account for 40% of the total. Twenty-seven percent of the bears harvested are taken incidental to other sportsmen's activities (Table 2).

Over 90% of the black bears killed in DAU 1C are taken with rifles (Table 3).

Sex Ratio/Age Structure

Examination of the age structure of the kill reveals large cohorts in 1994, 1996, and 2000 (Table 4), similar to other DAUs in the Panhandle Region. The percentage of females in the 2003 harvest was 36%, dropping the three-year average to 30%. The percentage of males ≥ 5 years old was 34% in 2003, bringing the three-year average to 39%.

Dog-training Seasons

The 2003 dog-training season in DAU 1C was May 16 - July 31 (Table 5).

Management Implications

This DAU is under-harvested relative to the management goal of heavy harvest (Table 6), despite a more liberal season beginning in 2000. Both criteria (% females in the harvest, % age 5+ males in the harvest) appear stable over the past three years. Further season changes may be warranted to move this DAU toward the heavy harvest category.

DAU 1L (GMU 6)

Abstract

Harvest of black bears in DAU 1L was 93 during 2003, a decrease of 48% from the previous year but an increase of 9% from the average of the previous three years. Females made up 35% of the harvest and age 5+ males comprised 27% of the male harvest. This DAU is meeting management criteria for moderate harvest.

Management Direction

DAU 1L will be managed to maintain the moderate harvest targets of 25-35% age 5+ black bears in the male harvest and 30-40% females in the total harvest. Harvest criteria falls within the desired category for females and males fall within the light category. Because of the relatively small harvest in this DAU, there is significant fluctuation in the management criteria from year to year. Baiting is now allowed within this DAU; however, significant changes in harvest are not anticipated due to this regulation change.

Background

This DAU is a mix of private property, mainly timber company lands, with a mix of USFS, Bureau of Land Management, and Idaho Department of Lands (IDL) property. This area has

been influenced heavily by logging and, to a lesser extent, by the large fires of the early 1900s. Road densities range from moderate to high.

Harvest Characteristics

Harvest increased substantially from prior years during 2002 and then came down a little during the 2003 season. The final 2003 harvest figure of 93 bears was the second highest recorded since 1999 (Table 1).

Spotting/stalking is the primary method used to hunt bears in this DAU, with 36% of the harvest taken in this manner (Table 2). Use of hounds and bears taken incidental to other hunting were also important. Baiting has been allowed since the fall 2000 season, and 14% of the 2003 harvest was taken with the aid of bait.

Nearly all black bears taken in this DAU are taken with a rifle (Table 3).

Sex Ratio/Age Structure

Consistent with that shown for other DAUs in the Panhandle Region, the 1994, 1996, and 2000 cohorts are larger than cohorts for other years (Table 4). Thirty-five percent of the 2003 harvest was female bears, reflective of a moderate harvest regime. Twenty-seven percent of the male harvest was aged ≥ 5 years old.

Dog-training Seasons

The 2003 dog-training season in this DAU was May 16 - July 31 (Table 5).

Management Implications

The percentage of females in the harvest is within the moderate harvest level prescribed for this DAU. The percentage of the male harvest reaching five years-of-age is also moderate (Table 6). There appears to be some need to expand hunting opportunity in this DAU to meet harvest management objectives.

AREA TWO

DAU 2B (GMUs 7, 9)

Abstract

Harvest of black bears in DAU 2B was 63 during 2003, roughly the same as taken during the past three years. This DAU is targeted for moderate harvest. The percentage of females in the harvest is currently in the lightly harvested category, as is the male age structure criterion.

Management Direction

DAU 2B will be managed to increase harvest to the moderate harvest targets of 25-35% age 5+ black bears in the male harvest and 30-40% females in the total harvest. Seasons have been increased in this DAU. Few changes are anticipated in harvest levels because of the remote nature of this DAU; however, criteria will be monitored to see if significant changes do occur as a result of these changes.

Background

This DAU is the most remote from human population centers of any DAU in the Panhandle Region. In addition, persistent snowdrifts make spring travel difficult, and substantial road-less areas preclude high levels of use. Most of the habitat in this DAU is managed by the USFS.

DAU 2B has historically met criteria for a lightly harvested population. In the current Bear Plan, the Department targeted a moderate harvest requirement due to census of low calf elk recruitment. This DAU still meets criteria for a lightly harvested population, but calf recruitment has improved nonetheless.

Harvest Characteristics

The 2003 harvest of 63 bears was within the range seen during the past ten years, an annual harvest of 37-63 bears. Seventy-three percent of the 2003 bear harvest in this DAU took place during spring, a pattern similar to that of prior years (Table 1). While spring outfitting for black bears has increased in recent years, this has apparently been offset by a decrease in harvest from non-outfitted hunters.

Forty percent of the 2003 harvest was taken with the use of bait, the highest percentage in the Panhandle Region. Almost this entire take is through the efforts of outfitters. Spot and stalk hunting accounted for another 27% of the 2003 harvest, with the remaining harvest about evenly distributed between hound hunters and incidental harvest (Table 2).

The vast majority of the black bears taken in this DAU are taken with a rifle (Table 3).

Sex Ratio/Age Structure

The male age structure of DAU 2B was relatively old during 2003, with 42% of males reaching five years-of-age (Table 4). The number of age 5+ males has changed little over time. Thirty-seven percent of the harvest was of female bears, reflecting a lightly hunted population.

Dog-training Seasons

The 2003 dog-training season in this DAU was July 1-31 (Table 5).

Management Implications

Our attempt to move this population toward a younger age structure and a lower percentage of males does not appear to be successful with our current season framework (Table 6).

Table 1. Black bear harvest by season and sex for Panhandle Region DAUs, 1994-present.

DAU/Year	Spring				Fall				Entire season			
	M	F	U	Total	M	F	U	Total	M	F	U	Total
1A												
1994	81	21	1	103	51	35	1	87	132	56	2	190
1995	65	27	0	92	44	22	1	67	109	49	1	159
1996	102	49	0	151	41	28	1	70	143	77	1	221
1997	64	26	0	90	82	60	1	143	146	86	1	233
1998	75	29	0	104	140	69	1	210	215	98	1	314
1999	76	37	0	113	40	28	2	70	116	65	2	183
2000	70	30	0	100	44	16	1	61	114	46	1	161
2001	57	12	1	70	35	22	1	58	92	34	2	128
2002	53	26	0	79	68	34	1	103	121	60	1	182
2003	76	43	1	120	76	37	1	114	152	80	2	234
3-yr. avg.	62	27	1	90	60	31	1	92	122	58	2	182
1B												
1994	22	14	0	36	28	25	0	53	50	39	0	89
1995	34	6	3	43	33	19	0	52	67	25	3	95
1996	29	15	0	44	38	26	0	64	67	41	0	108
1997	19	15	1	35	51	32	1	84	70	47	2	119
1998	42	24	0	66	79	59	1	139	121	83	1	205
1999	29	12	0	41	40	33	0	73	69	45	0	114
2000	26	16	0	42	37	28	0	65	63	44	0	107
2001	13	11	0	24	47	35	0	82	60	46	0	106
2002	15	17	0	32	49	37	1	87	64	54	1	119
2003	23	14	0	37	56	54	0	110	79	68	0	147
3-yr. avg.	17	14	0	31	51	42	0	93	68	56	0	124
1C												
1994	30	5	0	35	24	11	0	35	54	16	0	70
1995	23	15	0	38	33	13	0	46	56	28	0	84
1996	13	4	0	17	41	27	0	68	54	31	0	85
1997	17	3	0	20	50	39	1	90	67	42	1	110
1998	40	14	0	54	56	33	0	89	96	47	0	143
1999	23	20	1	44	56	33	0	89	79	53	1	133
2000	21	7	0	28	62	26	0	88	83	33	0	116
2001	24	5	0	29	47	24	0	71	71	29	0	100
2002	22	5	0	27	93	36	2	131	115	41	2	158
2003	34	13	0	47	62	42	0	104	97	55	0	152
3-yr. avg.	27	8	0	35	67	34	1	102	94	42	1	137
1L												
1994	15	5	0	20	19	11	0	30	34	16	0	50
1995	18	7	0	25	28	10	0	38	46	17	0	63
1996	19	6	0	25	19	18	0	37	38	24	0	62
1997	14	9	0	23	30	27	0	57	44	36	0	80
1998	34	8	0	42	38	19	0	57	72	27	0	99
1999	25	16	0	41	27	16	0	43	52	32	0	84

Table 1. Continued.

DAU/Year	Spring				Fall				Entire season			
	M	F	U	Total	M	F	U	Total	M	F	U	Total
2000	13	7	0	20	18	13	0	31	31	20	0	51
2001	17	4	0	21	28	17	1	46	45	21	1	67
2002	25	11	0	36	66	34	2	102	91	45	2	138
2003	22	9	0	31	38	24	0	62	60	33	0	93
3-yr. avg.	21	8	0	29	44	25	1	70	65	33	1	99
2B												
1994	16	9	0	25	6	6	0	12	22	15	0	37
1995	17	8	0	25	12	2	0	14	29	10	0	39
1996	41	6	0	47	4	6	0	10	45	12	0	57
1997	25	5	0	30	8	6	0	14	33	11	0	44
1998	38	12	0	50	16	8	0	24	54	20	0	74
1999	28	14	0	42	10	9	0	19	38	23	0	61
2000	33	10	0	43	7	1	0	8	40	11	0	51
2001	26	17	0	43	6	3	11	20	32	20	11	63
2002	35	9	0	44	12	5	0	17	47	14	0	61
2003	29	17	0	46	11	6	0	17	40	23	0	63
3-yr. avg.	30	14	0	44	10	5	4	19	40	19	4	63

Table 2. Method of black bear harvest for Panhandle Region DAUs, 1994-present.

DAU/Year	Bait	Hounds	Still	Incidental	Other	Total
1A						
1994	1	3	144	32	10	190
1995	0	0	61	17	82	160
1996	0	4	183	29	5	221
1997	1	1	135	81	15	233
1998	0	0	249	46	10	305
1999	0	4	145	28	6	183
2000	0	5	138	11	7	161
2001	0	7	99	6	5	117
2002	0	5	140	11	25	181
2003	0	3	188	17	1	209
1B						
1994	18	20	29	19	3	89
1995	16	15	26	11	28	96
1996	22	24	45	13	3	107
1997	20	23	37	35	4	119
1998	47	42	75	42	8	214
1999	25	28	41	19	1	114
2000	24	22	47	11	3	107
2001	29	20	28	10	2	89
2002	28	24	41	17	9	119
2003	44	33	39	25	0	141
1C						
1994	15	12	27	12	4	70
1995	6	12	18	21	27	84
1996	6	17	33	24	4	84
1997	9	3	54	42	3	111
1998	21	20	61	39	2	143
1999	13	33	46	37	3	132
2000	11	27	41	14	2	95
2001	11	31	41	12	0	95
2002	24	23	72	30	10	159
2003	20	29	57	39	0	145
1L						
1994	1	13	18	14	3	49
1995	0	10	19	18	16	63
1996	0	10	26	26	0	62
1997	0	11	37	27	5	80
1998	0	23	45	28	1	97
1999	0	21	41	22	0	84
2000	1	14	20	15	1	51
2001	4	12	25	21	0	62
2002	17	26	44	28	3	118
2003	13	21	33	24	0	91

Table 2. Continued.

DAU/Year	Bait	Hounds	Still	Incidental	Other	Total
2B						
1994	12	0	19	6	0	37
1995	1	1	5	11	21	39
1996	29	2	13	12	1	57
1997	20	3	6	12	4	45
1998	19	5	24	24	0	72
1999	16	12	15	18	0	61
2000	24	7	10	9	1	51
2001	26	5	15	6	0	52
2002	26	11	18	4	2	61
2003	25	6	17	13	0	61

Table 3. Weapon type used to harvest black bear for Panhandle Region DAUs, 1994-present.

DAU/Year	Rifle	Archery	Muzzleloader	Handgun	Other	Total
1A						
1994	176	2	0	4	6	188
1995	149	4	1	3	3	160
1996	213	2	1	4	1	221
1997	221	2	0	5	2	230
1998	291	9	0	6	78	384
1999	172	3	1	5	2	183
2000	155	2	1	3	0	161
2001	91	1	0	0	0	92
2002	123	2	0	2	0	127
2003	170	8	1	1	2	182
1B						
1994	70	9	1	6	1	87
1995	72	13	3	8	1	97
1996	92	10	1	4	1	108
1997	101	9	2	2	5	119
1998	177	15	1	7	0	200
1999	96	12	1	4	1	114
2000	93	8	1	2	3	107
2001	79	18	0	5	4	106
2002	104	10	3	2	0	119
2003	119	19	2	3	4	147
1C						
1994	61	6	1	0	1	69
1995	74	6	1	1	2	84
1996	74	6	0	5	0	85
1997	102	4	1	1	2	110
1998	131	8	0	3	2	144
1999	121	4	0	5	2	132
2000	86	7	0	2	0	95
2001	90	8	1	1	1	101
2002	137	12	1	5	3	158
2003	137	9	1	1	4	152
1L						
1994	43	3	0	1	2	49
1995	56	3	0	4	0	63
1996	59	2	0	1	0	62
1997	74	3	0	2	1	80
1998	92	4	0	2	1	99
1999	80	2	0	2	0	84
2000	47	2	0	0	2	51
2001	54	1	1	0	2	58
2002	122	12	1	2	1	138
2003	85	4	0	4	0	93

Table 3. Continued.

DAU/Year	Rifle	Archery	Muzzleloader	Handgun	Other	Total
2B						
1994	34	3	0	0	0	37
1995	32	5	1	1	0	39
1996	49	8	0	0	0	57
1997	38	6	0	1	0	45
1998	58	10	2	2	2	74
1999	54	3	2	2	0	61
2000	39	6	2	2	2	51
2001	47	3	1	2	0	53
2002	49	6	1	0	3	59
2003	50	7	3	3	0	63

Table 4. Age distribution of black bear for Panhandle Region DAUs, 1996-present.

DAU/ Year	Sex	Age ^a										Total
		1	2	3	4	5	6	7	8	9	10+	
1A												
1996	M	9	34	25	14	18	10	6	10	1	11	138
	F	3	14	7	12	4	5	5	5	1	21	77
1997	M	18	27	26	16	15	7	7	3	7	11	137
	F	8	10	22	3	8	5	4	5	0	15	80
1998	M	1	10	4	10	3	3	1	3	2	11	48
	F	0	1	3	4	0	0	5	0	1	6	20
1999	M	8	13	17	13	15	3	6	7	7	12	101
	F	6	3	7	4	4	0	2	4	2	23	55
2000	M	5	9	13	22	8	9	7	6	4	7	90
	F	0	3	3	4	3	6	1	3	1	14	38
2001	M	13	3	7	4	11	3	14	3	5	8	71
	F	3	2	3	2	1	1	3	0	3	11	29
2002	M	9	39	7	6	4	9	3	7	5	9	98
	F	2	8	1	3	7	6	4	3	3	14	51
2003	M	19	24	34	3	6	6	7	4	8	21	132
	F	4	10	18	2	3	2	9	8	4	9	69
1B												
1996	M	6	17	6	14	2	5	1	3	0	5	59
	F	2	4	7	5	0	5	2	4	2	8	39
1997	M	18	10	16	7	7	2	2	1	2	1	66
	F	6	6	12	2	2	1	4	3	0	8	44
1998	M	0	6	0	10	2	2	1	1	1	4	27
	F	1	3	1	6	0	3	0	1	0	7	22
1999	M	8	10	23	3	9	2	3	3	1	1	63
	F	3	2	10	5	3	4	4	0	1	9	41
2000	M	4	13	10	10	2	4	0	1	1	0	45
	F	1	3	4	3	4	4	2	2	1	10	34
2001	M	14	9	13	6	7	1	3	1	1	1	56
	F	6	6	7	4	4	1	2	2	5	8	45
2002	M	14	23	9	4	0	6	1	2	0	3	62
	F	6	11	6	8	3	2	1	5	1	9	52
2003	M	14	16	20	7	6	4	4	1	1	2	75
	F	5	15	11	2	7	5	4	4	1	11	65
1C												
1996	M	11	18	9	10	1	1	1	1	0	2	54
	F	4	6	5	6	2	0	3	2	0	1	29
1997	M	20	10	18	3	3	0	3	1	0	4	62
	F	10	4	6	3	4	0	2	1	2	6	38
1998	M	0	3	3	9	0	3	0	3	1	3	25
	F	1	0	0	2	2	0	1	0	0	0	6
1999	M	6	17	16	6	11	2	7	3	2	5	75
	F	2	5	8	2	8	3	3	0	7	4	42
2000	M	4	6	9	8	4	3	4	2	2	7	49
	F	0	3	5	1	1	2	0	2	5	6	25
2001	M	18	8	9	5	8	2	6	0	2	8	66
	F	4	2	2	1	4	0	3	1	0	10	27

Table 4. Continued.

DAU/ Year	Sex	Age ^a										Total
		1	2	3	4	5	6	7	8	9	10+	
2002	M	14	41	2	3	6	10	3	10	5	13	107
	F	4	5	4	2	5	8	1	1	2	8	40
2003	M	15	15	28	1	5	3	5	1	4	12	89
	F	4	8	15	4	2	0	3	0	3	10	49
1L												
1996	M	2	11	2	3	2	5	2	2	0	4	33
	F	1	5	3	2	0	0	1	2	0	7	21
1997	M	12	6	9	5	3	2	1	0	0	3	41
	F	6	4	6	1	3	1	4	1	1	5	32
1998	M	0	5	3	6	0	4	0	1	0	3	22
	F	0	1	1	3	0	1	0	0	0	0	6
1999	M	0	7	15	4	8	2	3	1	3	6	49
	F	0	2	9	1	5	0	4	1	1	7	30
2000	M	0	6	1	7	4	5	1	2	0	3	29
	F	1	3	2	4	0	1	0	1	0	2	14
2001	M	8	4	5	4	5	3	6	2	1	3	41
	F	1	3	3	1	2	1	2	1	0	6	20
2002	M	9	30	3	12	2	9	1	6	4	3	79
	F	5	11	4	3	4	4	1	5	1	6	44
2003	M	11	14	15	3	2	2	4	2	3	3	59
	F	4	5	5	2	3	1	5	2	0	6	33
2B												
1996	M	0	12	2	9	7	1	3	6	0	4	44
	F	0	4	1	4	0	0	1	1	1	0	12
1997	M	5	6	10	2	2	1	2	0	0	3	31
	F	1	0	1	2	1	0	0	0	0	2	7
1998	M	0	5	7	4	1	2	5	2	0	2	28
	F	0	0	2	2	1	2	1	0	0	0	8
1999	M	1	0	9	7	3	5	1	1	3	5	35
	F	0	0	3	3	4	1	0	1	2	5	19
2000	M	0	2	6	8	4	6	3	3	1	5	38
	F	0	0	2	5	0	1	0	1	0	2	11
2001	M	2	1	4	3	3	1	7	2	2	6	31
	F	0	2	2	1	2	0	2	0	1	4	14
2002	M	4	14	2	3	3	4	2	6	2	3	43
	F	2	1	0	1	1	2	2	3	0	1	13
2003	M	2	2	18	0	2	0	4	2	0	8	38
	F	0	2	8	0	2	2	0	0	1	8	23

^a Includes only black bear with both known age and sex.

Table 5. Summary of 2003 seasons by method for Panhandle Region DAUs.

DAU	Units	Season Type	Season	
			Dates	Length (Days)
1A ^a	1	General Fall, archery only	30 Aug – 14 Sept	16
		General Fall, any legal weapon	15 Sept - 31 Oct	47
		General Spring, any legal weapon	15 Apr - 31 May	47
		Controlled Fall, any legal weapon ^b	15 Sept - 9 Oct	25
1B ^c	2, 3, 5	General Fall, any legal weapon	15 Sept - 31 Oct	47
		General Spring, any legal weapon	15 Apr - 15 May	31
1C ^{c,d}	4, 4A	General Fall, any legal weapon	30 Aug - 31 Oct	62
		General Spring, any legal weapon	15 Apr - 15 May	31
		Pursuit	16 May - 31 Jul	77
1L ^{c,d}	6	General Fall, any legal weapon	30 Aug - 31 Oct	62
		General Spring, any legal weapon	15 Apr - 15 May	31
		Pursuit	16 May - 31 Jul	77
2B ^e	7, 9	General Fall, any legal weapon	30 Aug - 31 Oct	62
		General Spring, any legal weapon	15 Apr - 30 Jun	78
		Pursuit	1 Jul - 31 Jul	31

^a Dogs and bait prohibited.

^b Dogs allowed, bait prohibited, 15 permits for a portion of Unit 1.

^c Dogs prohibited 15-30 April and 10-31 October.

^d Dogs prohibited 30 August - 14 September.

^e Dogs prohibited 10-31 October.

Table 6. 2000-2010 Black Bear Plan management values and criteria for Panhandle Region DAUs, 1994-present.

DAU/Year	N	% Females	% Males ≥ 5	# Males ≥ 5
1A				
1994	189	30	29	35
1995	164	32	42	44
1996	222	35	41	56
1997	232	37	36	50
1998	280	32	48	23
1999	181	36	50	50
2000	160	29	49	48
2001	126	27	63	45
2002	182	33	41	37
2003	234	34	39	52
3-year avg.	181	31	48	45
Desired levels		<30	>35	
1B				
1994	90	43	28	14
1995	97	29	23	15
1996	114	37	27	16
1997	117	40	23	15
1998	179	43	41	11
1999	114	39	29	19
2000	107	41	18	8
2001	106	43	25	14
2002	119	46	19	12
2003	147	46	24	18
3-year avg.	124	45	23	15
Desired levels		>40	<25	
1C				
1994	70	23	36	18
1995	84	33	29	16
1996	89	36	11	6
1997	109	39	18	11
1998	128	29	40	10
1999	131	35	40	30
2000	95	35	45	22
2001	100	29	39	26
2002	158	26	44	47
2003	152	36	34	30
3-year avg.	137	30	39	34
Desired levels		>40	<25	

Table 6. Continued.

DAU/Year	N	% Females	% Males ≥ 5	# Males ≥ 5
1L				
1994	50	32	22	7
1995	63	27	27	11
1996	62	40	45	15
1997	81	44	22	9
1998	78	27	36	8
1999	84	38	46	23
2000	51	39	52	15
2001	66	32	49	20
2002	138	33	31	25
2003	93	35	27	16
3-year avg.	99	33	36	20
Desired levels		30-40	25-35	
2B				
1994	37	41	68	15
1995	39	26	38	11
1996	56	21	48	21
1997	44	25	26	8
1998	62	26	43	12
1999	61	38	51	18
2000	51	22	58	22
2001	52	38	68	21
2002	61	23	49	20
2003	63	37	42	16
3-year avg.	59	33	53	19
Desired levels		30-40	25-35	

Table 7. Black bear depredation complaints for Panhandle Region DAUs, 1994-present.

Year	DAU					Total
	1A	1B	1C	1L	2B	
1994	18	10	0	0	0	28
1995	38	18	5	0	0	61
1996	18	22	2	0	0	42
1997	66	34	4	0	0	104
1998	167	103	46	17	7	340
1999	14	7	24	1	0	46
2000	19	14	23	1	0	57
2001	1	2	0	0	0	3
2002	0	7	0	0	0	7
2003	0	0	0	0	0	0

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Black Bear Surveys and</u>
PROJECT:	<u>W-170-R-28</u>		<u>Inventories</u>
SUBPROJECT:	<u>2</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>9</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2003 to June 30, 2004</u>		

CLEARWATER REGION

Abstract

Reported harvest during 2003 for the Clearwater Region was 867 black bears, a 29% increase from 2002 and a 42% increase from the previous three-year average of 611 black bears. Total harvest by DAU in 2003 was 176 in 1D, 80 in 1E, 105 in 1F, 323 in 2A, and 183 in 3A.

The 2000-2010 Black Bear Management Plan criteria were met in all DAUs for objectives outlined. Regulation changes in 1993 resulted in a shift in harvest from spring to fall and (except for DAU 2A) from baiting to incidental and still hunting as the most popular methods of harvest across the Region. The last two years have seen the harvest trend return to pre-1993 techniques with most bears being harvested in the spring (66%) and over bait (59%). Due to the intensive harvest efforts, increased season lengths, and bag limits, DAU 2A constituted 37% of the Regional harvest. Sixty-two percent of the harvested black bears from DAU 2A were killed over bait in the spring. The rest of the Regional harvest by method consisted of bait (28%), hounds (24%), still hunting (21%), and incidental (22%). Management needs dictate continued monitoring as harvest levels continue to climb. All values should be reviewed in perspective of harvest trends, bait station surveys, road densities/access, and new hunting patterns resulting from regulation changes.

AREA ONE

DAU 1D (GMUs 8A, 10A)

Abstract

DAU 1D had historically been one of the most over-harvested DAUs in the Region. Harvest criteria were exceeded in all four over-harvest criteria in 1992. In 1993, seasons were changed to reduce the harvest of black bears in this DAU. The regulation changes apparently were successful in reducing harvest by an average of 16% over the following three years. However, from 1996-1998, harvest rebounded to an average of 123 and is currently increasing again, which is higher than prior to the regulation change. When analyzed by season and method, most harvest during 2003 occurred in the fall (60%), by hound hunters (52%), incidental (30%), and

still hunters (18%). During 1992, most harvest occurred during the spring season (66%) by bait hunters (44%). High road densities have allowed hunters to access most of the available black bear habitat.

Management Direction

DAU 1D has historically received intensive black bear harvest. This DAU receives many dispersers from DAU 2A; therefore, the current high harvest can be maintained. Direction for DAU 1D is to monitor harvest data to determine if changes in harvest structure reflect a negative trend in the population, or just a change in age of black bears being shot by hunters as a result of fall harvest and food availability. The population will be stabilized through regulation changes if necessary.

Background

Historically, season lengths in DAU 1D have been relatively long, becoming more restrictive in recent years. The 1992 season length was 107 days with a two-week pursuit season. The season length under the 1992-2000 Black Bear Management Plan was reduced to 62 days with a 77-day pursuit season. No changes in this DAU were included in the 2000-2010 Black Bear Plan. The fall season was extended in 1997 to a total season length of 78 days. No season changes occurred during 1999, but in 2000, the fall season was extended two weeks earlier for archery hunters. Black bear baiting was not allowed.

Mixed land ownership and high road densities on USFS, IDL, a private timber company, and small private landholdings characterize these units. Although the habitat provides high quality forage, easy hunter access has led to over-harvest problems from direct mortality as a result of intensive hunting pressure.

DAU 1D typically receives high annual rainfall, as indicated by the common occurrence of western red cedar habitat types, lush forb associations, and a variety of berry species. Productive habitat provides optimal foraging for black bears.

Population Surveys

Bait station surveys have not been conducted in DAU 1D since 1996 (Table 1). This technique is being evaluated for its effectiveness in monitoring population trends.

Harvest Characteristics

During 2003, 176 black bears were harvested in DAU 1D, an increase of 26% from the previous three-year average (Table 2). Forty-two percent of the harvest consisted of females (Table 3). Most bears (60%) were harvested during the fall season. Age characteristics of harvest for 2001-2003 indicate that all criteria are being met (Tables 3 and 4).

The method of harvest most preferred by hunters in 2003 was hound hunting, accounting for 52% of the harvest, followed by incidental at 30% (Table 5). Weapon type used most frequently

was rifle (88%) followed by archery (9%). During 1993-1999, archery comprised only 3% of the harvest, probably a result of baiting restrictions, and the 2000-2003 increase was likely a result of the season lengthening (Table 6).

Depredations

Six black bear depredations were reported in DAU 1D in 2003, which is near the long term average for this DAU (Table 7).

Dog-training Seasons

An 11-week dog-training season from May 16 through July 31 was allowed in DAU 1D during 2003 (Table 8).

Management Implications

According to current management criteria, black bears were moderately harvested in DAU 1D during the 2001-2003 time period. Under the guidance of the 1992-2000 Black Bear Management Plan, black bear harvest in 1D was reduced until the last few years when harvest rebounded to pre-1993 regulation change levels.

Except for 1998, recent harvest records show increased harvest of predominantly younger age-class black bears. This could be indicative of increased numbers of sub-adult dispersers dominating the harvest. The 1995-1999 records indicated that harvest shifted to the fall season, thereby increasing harvest by incidental hunters and maintaining a younger age structure in the harvest. The 2000-2010 management plan objectives allow for maintaining high harvest in this DAU. However, older age-class black bear numbers were likely high in 1998 due to poor availability of fall foods, and in 2000 due to the subsequent age-class failure of two-year-old dispersers.

DAU 1E (GMUs 8, 11, 11A, 13)

Abstract

Hunters harvested 80 black bears in DAU 1E during 2003, an 8% decrease over the three-year average. Even so, only 40% were females. Sixty-two percent of black bears harvested were killed in the fall, 42% of which were killed by incidental hunters.

Management Direction

Because much of the black bear habitat in DAU 1E is privately-owned and in steep canyons, harvest is not distributed evenly. Hound hunting is difficult and may conflict with private landowners due to fragmented ownership. Consequently, management direction is to reduce hound hunter activity during take and dog-training seasons, and to maintain harvest levels. In addition, there is a lack of evenly dispersed quality black bear habitat and the potential for over-harvest in these isolated or fragmented habitats.

Background

DAU 1E lies mostly along the western side of the Clearwater Region and is predominantly private land. Difficult access and fragmented black bear habitat through most of the DAU have kept overall harvest unevenly dispersed. Agricultural use and sheep and cattle allotments are plentiful and characterize this DAU. Timbered habitat is clumped and interspersed with expansive grasslands along the Salmon, Snake, and lower Clearwater River breaks. Old homesteads and dispersed fruit trees provide black bears with plentiful fall foods in some areas. The largest black bears in the Region typically are harvested in these units. Bait station transects conducted on the Craig Mountain Wildlife Management Area (WMA) indicate an increasing trend in black bear visitation since the WMA came under Department management, concurring with the increasing harvest rates.

The climate in this DAU ranges from hot and arid along the river breaks to cooler and moister in the higher elevations. The 2003 season length was 78 days, a reduction of 29 days from 1992. The dog-training season was 77 days.

Population Surveys

Bait station surveys have been conducted for DAU 1E in Unit 11 due to its representative habitat types and the availability of personnel to conduct surveys. Sixteen transects were sampled in July 2003. The 25.0% visitation rate observed in 2003 represents a substantial increase over that observed in previous years (Table 1).

Harvest Characteristics

There were 80 black bears harvested in DAU 1E during 2003; 62% were taken in the fall (Table 2). Adult male age criteria were in the moderate to high harvest category and the percent females harvested was 40% in 2003 (Tables 3 and 4). The most frequent method of harvest was incidental hunting, accounting for 33% of the harvest (Table 5). The weapon type most frequently used was rifle which accounted for 88% of the harvest, followed by archery (11%) and handgun at 1% (Table 6).

Depredations

Most of the land in this DAU is privately-owned. Two depredation complaints were recorded during 2003, down from an average of five for the previous three-year period (Table 7).

Dog-training Seasons

In DAU 1E, 11 weeks of dog-training were allowed from May 16 through July 31 (Table 8).

Management Implications

Much of the land in Units 8, 11, 11A, and 13 is either agricultural or river breaks, and black bear habitats are isolated. Consequently, most harvest occurs along major road, river, and creek

corridors at higher elevations. Many of the young black bears harvested are probably dispersing to new territories with adult black bears using better quality habitats away from the roads. It is likely that without much road access, harvest will continue to reflect young dispersing black bears. Harvest was 40% female and may indicate that the productive elements of the population (females) were usually selecting more isolated areas, thus reducing the likelihood of mortality. The majority of black bears in any cohort being harvested in this DAU historically are one- and two-year old dispersing males.

DAU 1F (GMUs 14, 15, 16, 18)

Abstract

Hunters in DAU 1F harvested 105 black bears during 2003, a 19% increase from the three-year average. Harvest was split nearly equally between spring (52) and fall (53) in 2003. The most frequent harvest method was bait (37%) followed by still/stalk (26%) while using a rifle (82%) or bow (9%). The 2003 age data showed heavy harvest in young males and older females. A portion of the DAU in Unit 15 was closed to harvest for research purposes.

Management Direction

Prior to 1993, black bear harvest had increased in DAU 1F, probably as a result of increased road densities in previously un-roaded areas. The Black Bear Management Plan (1992-2000) adopted a decrease in season length, more restrictions on use of training dogs during take seasons, and the dog-training season was lengthened. The direction for management was to reduce black bear harvest, improve black bear population demographics, and maintain hunting opportunity with a variety of hunting techniques. The new black bear plan for 2000-2010 calls for maintaining current harvest levels. Due to research being conducted in this DAU, a portion of Unit 15 is now closed to harvest of black bears, a possible contributing factor to the 40% decline in harvest the last two years.

Background

Under the 2000-2010 Black Bear Management Plan, season framework in DAU 1F is similar to that of the previous black bear plan. Under the 1992-2000 plan, the take season was shortened to 62 days with a dog-training season of 77 days. In 1997, the fall season was extended to 78 days.

DAU 1F is comprised of about 80% USFS land and 20% private and state lands. Much of the area has high road densities, has been logged, and is easily accessible. There are a few areas in these units that provide for core security areas for black bears.

Population Surveys

Bait station surveys were conducted during 2003 in conjunction with the elk productivity research study. Data were analyzed for trails and open and closed roads. In general, trails and closed roads received more visitations than did open roads. Sixty-seven transects were surveyed and 128 of the 325 sites were visited by black bears, resulting in a 39% visitation rate (Table 1).

Harvest Characteristics

There were 105 black bears harvested in DAU 1F during 2003, 50% during the fall season (Table 2). Females comprised 36% of the harvest in DAU 1F. Management objectives under the new plan target moderate harvest (Tables 3 and 4). The most frequent methods of harvest were bait (37%) followed by still/stalk at 26% (Table 5). Rifle was the most frequent (82%) weapon type (Table 6).

Depredations

Four depredation complaints were recorded for this DAU during 2003 (Table 7).

Dog-training Seasons

Dog-training season ran from May 16 through July 31 in DAU 1F and season-long in the closure area (Table 8).

Management Implications

DAU 1F receives intensive hound hunting activity because of its proximity to population centers and easy road access. Most of the DAU is on national forest lands with high road densities. Although black bear harvest criteria indicate moderate to high harvest levels, the high quality black bear habitat in this DAU should allow black bear populations to be maintained at desired levels in reserve and un-roaded areas. Currently, the harvest is distributed evenly between incidental harvest and other techniques, but is not as selective as hound hunting, bait hunting, or still hunting. During the last three years, harvest increased over the previous years, increasing above levels that occurred prior to the regulation changes. The difference in harvest has been the shift from spring to fall harvest and the continuing increase in incidental take. The closure of the northern portion of Unit 15 has had an impact on the amount of incidental harvest as well as overall harvest. The 105 bears harvested in 2003 represents the highest total in the past ten years.

AREA TWO

DAU 2A (GMUs 10, 12)

Abstract

During 2003, 323 black bears were harvested in DAU 2A, an increase of 31% over the previous three-year average of 246. Thirty-six percent of the harvest consisted of females. Eighty-three percent were harvested during the spring season. Bait hunting accounted for 70% of the harvest, rifle for 78%, and archery 16%. This was the highest level of harvest on record for this DAU.

Management Direction

The 2000-2010 Black Bear Management Plan recognizes DAU 2A as having productive habitat able to maintain high levels of harvest. DAU 2A may serve as a reservoir of black bears to

surrounding units receiving higher harvest pressures (e.g., Unit 10A). Harvest occurs mainly on major road and river corridors in DAU 2A. Take seasons last 157 days with a 31-day dog-training season (Table 8). The Department will continue to monitor harvest data on a three-year average and conduct bait station surveys to obtain data to manage for a healthy population structure and harvest of black bears. Additionally, tetracycline baits may allow calculation of a population estimate for this DAU over time. The bag limit was increased to two black bears per year to take advantage of the high black bear numbers and enhance hunter opportunity as well as reduce the bear population within the elk productivity research study area boundaries.

Background

DAU 2A probably contains the most productive black bear habitat in the Clearwater Region. High moisture, dense forests, and road-less areas allow for relatively dense populations. However, liberal hunting seasons since the late 1970s have probably kept black bear populations below achievable levels.

Population Surveys

Intensive bait station surveys have been conducted since 1997 as part of the elk productivity research study. These efforts have included the use of tetracycline baits for determining population size and intensive overall efforts to determine trends (Table 1). Sixty-seven transects and 318 sites were sampled with a visitation rate of 26.7% in 2003, down from 30.9% in 2002. In general, the sites on closed roads and trails received higher visitation rates than those on open roads.

Harvest Characteristics

During 2003, 323 black bears were harvested in DAU 2A, an increase of one percent over the previous three-year average. This represents the highest harvest total on record for this DAU. Eighty-four percent of these black bears were harvested during spring (Table 2). Of the black bears harvested, 36% were females (Table 3). Age data criteria set under the new management plan allow for increased harvest. Current age criteria indicate harvest levels are light to moderate (Table 4).

Hunting over bait accounted for 70% of the harvest in DAU 2A, followed by still/stalk (20%), and incidental and hounds at 5% each (Table 5). Rifle was the most common weapon used (82%), then bow at 16% (Table 6).

Depredations

A record 12 depredation complaints were recorded during fall 1998, an indication of a poor huckleberry crop in DAU 2A. Seven complaints have been received in the five years since, (Table 7).

Dog-training Seasons

A one-month dog-training season occurred during 2003 from 1-31 July (Table 8).

Management Implications

DAU 2A receives moderate hunting pressure because of its un-roaded habitats, public land, and healthy black bear populations. Harvest is light to moderate in the male component and 71% were ≥ 5 years old. The adult female segment remains secure in the un-roaded segments of the DAU, especially with the restrictions on females with cubs.

DAU 2A has a potential for high black bear numbers because of the quality habitat. Harvest was reduced dramatically from 1993-1996 under the old black bear plan, but increased since 1998 to levels higher than occurred prior to the season changes. Because black bear populations appear to be healthy, an opportunity to harvest more black bears became apparent and most of the season length was extended to the end of June for the spring hunt and to the end of big game season in the fall. Harvest doubled in 1998 and has remained at a high level through 2003. Most of the harvest in this DAU occurs in the spring, unlike other DAUs in the Region.

AREA THREE

DAU 3A (GMUs 16A, 17, 19, 20)

Abstract

During 2003, 183 black bears were reported harvested in DAU 3A, a 129% increase over the previous three-year average of 80. Thirty-five percent of the harvest consisted of females. This DAU consistently met the old (1992-2000) management criteria objectives and current (2000-2010) criteria still suggest a lightly hunted population, even with the dramatic increase in harvest. This increase in harvest is most likely due to liberalized season structure and increased pressure by outfitted hunters. Eighty-one percent of the black bears were harvested in the spring over bait (66%).

Management Direction

This DAU probably serves as a reservoir of black bears for surrounding units that are more heavily harvested. The Department will manage DAU 3A to maintain or increase current harvest levels and distribution, although adjustments will be implemented to conform to statewide management direction. The bag limit for this DAU was doubled starting in fall 1999 to take advantage of high black bear numbers and to increase opportunity.

Background

Seasons have historically been 152 days long in DAU 3A but were reduced to 94 days beginning in 1993, then increased to 109 days in 1996. Seasons were increased to 159 days in 2000 and increased again in 2002 to the current season of 172 days (Table 8). Dog-training seasons have

not been allowed, primarily because of the inability of hound hunters to effectively monitor their hounds in wilderness areas.

Most of DAU 3A lies within wilderness and has relatively abundant black bear habitat. The northern portions receive substantial rainfall and provide some of the best black bear habitat in the DAU. The habitat within wilderness is varied with a range from poor to high quality habitat that is available throughout the year over a variety of elevations. Because of low hunting pressure and restricted access, black bear populations are probably quite healthy. Incidental harvest during other big game seasons distributes some pressure across the DAU.

Population Surveys

Black bear bait station surveys have not been conducted in DAU 3A since 1997 (Table 1).

Harvest Characteristics

During 2003, 183 black bears were reported harvested in DAU 3A (Table 2). The 183 bears harvested in 2003 represents the highest total on record for this DAU and is an increase of 129% from 2002. This increase is primarily due to intensified pressure by the outfitting industry and outfitter overlap arrangements as encouraged by the Department in an attempt to improve elk calf recruitment. Of the 183 bears, 35% were females. Only 19% of the black bears were harvested during the fall. Harvest criteria in the new (2000-2010) plan indicate light harvest levels. Sixty-seven percent of the males were ≥ 5 years old in 2003 (Tables 3 and 4). Most of the black bears harvested were taken over bait (Table 5). Rifle was the most common weapon used (82%), then bow at 12% (Table 6).

The black bear population data for DAU 3A suggest that a small proportion of the overall population was harvested. Age structures and harvest criteria indicate this population was in the best condition of any DAU in the Region.

Depredations

No depredations occurred in this DAU during 2003, the same as prior years (Table 7).

Dog-training Seasons

No dog-training season occurred in DAU 3A during 2003 (Table 8). Hound hunting for black bears was not popular in this DAU due to lack of roads and high probability of losing hounds.

Management Implications

Black bear populations are healthy and within desired levels in this DAU. Because of the adequate habitat within this DAU and light hunting pressure, the season structure proposed in the 2000-2010 Black Bear Management Plan allows for increased harvest, hence the two-black bear bag limit and extended seasons. Harvest criteria will be monitored to evaluate any potential effects of the increased harvest observed in 2003.

Table 1. Bait station survey results for Clearwater Region DAUs, 1993-present.

Year	Unit(s) surveyed	Survey dates	Total transects available	Total transects sampled	Total stations sampled	Total stations visited by black bear	90% confidence interval	
							%	(+/-)
1993 ^a	10A ^b	6/21-26	15	15	75	5	6.7	4.7
	11	6/15-22	11	10	49	2	4.1	3.3
	12	6/16-21	17	17	84	3	3.6	3.3
	15, 16	6/16-21	16	16	80	5	6.3	3.3
	19, 20	6/16-23	12	8	40	0	0.0	-
1994	10A ^{b,c}	6/10-16	15	15	75	6	8.0	5.1
	11	6/9-15	10	10	50	1	2.0	3.2
	12	6/13-18	17	17	85	2	2.4	2.7
	15, 16	6/10-15	13	13	65	8	12.3	6.7
	19, 20	6/9-16	12	7	35	2	5.7	6.4
1995	10, 12	6/24-7/9	102	80	400	26	6.5	2.0
	11	6/24-7/9	10	10	50	2	4.0	4.5
1996	10, 12	7/2-9	17	8	40	4	10.0	7.8
	11	7/3-8	10	10	50	3	6.0	5.5
	15, 16	6/28-7/13	13	10	50	5	10.0	7.0
	19, 20	6/26-7/2	12	5	25	4	16.0	12.0
1997	10, 12	7/9-14	18	48	237	21	8.9	3.0
	11	7/9-14	10	10	50	8	16.0	8.5
	15, 16	7/9-14	73	73	365	15	4.1	1.7
1997 ^d	10, 12	July-Aug	49	49	242	94	38.8	5.2
	15, 16	July-Aug	73	73	365	144	39.5	4.2
1998 ^d	10, 12	July-Aug	59	59	293	114	38.9	4.7
	15, 16	July-Aug	72	72	352	95	27.0	3.9
1999 ^d	10, 12	July-Aug	47	47	235	85	36.2	5.2
	15, 16	July-Aug	65	65	325	98	30.2	4.2
2000 ^d	10, 12	July-Aug	60	59	295	71	24.1	4.1
	11	July	10	10	47	7	14.8	8.6
	15, 16	July-Aug	68	68	340	95	27.9	4.0
2001 ^d	10, 12	July-Aug	66	66	329	72	21.9	3.8
	11	July	12	12	65	9	13.9	7.1
	15	July-Aug	64	64	316	85	26.9	4.1
2002 ^d	10, 12	July-Aug	58	57	285	88	30.9	4.5
	11	July	16	13	65	9	13.9	7.1
	15	July-Aug	60	60	300	102	34.0	4.5
2003 ^d	10, 12	July-Aug	67	67	318	87	26.7	4.1
	11	July	16	16	80	20	25.0	8.0
	15	July-Aug	67	67	325	128	39.4	4.5

^a First year of data, no comparisons.

^b Potlatch Corporation purchased sardines and placed transects.

^c Transects collected at 6 days.

^d Transects conducted using bacon baits instead of sardines and leaving out 20 days.

Table 2. Black bear harvest by season and sex for Clearwater Region DAUs, 1994-present.

DAU/Year	Spring				Fall				Entire Season			
	M	F	U	Total	M	F	U	Total	M	F	U	Total
1D												
1994	21	10	0	31	23	22	0	45	44	32	0	76
1995	12	11	0	23	36	25	0	61	48	36	0	84
1996	17	15	0	32	44	32	0	76	61	47	0	108
1997	15	10	0	25	61	36	0	97	76	46	0	122
1998	28	8	0	36	45	58	0	103	73	66	0	139
1999	22	13	0	35	55	20	0	75	77	33	0	110
2000	17	11	0	28	42	43	0	85	59	54	0	113
2001	19	11	0	30	50	32	0	82	69	43	0	112
2002	15	7	0	22	65	48	1	114	80	55	1	136
2003	42	28	0	70	60	46	0	106	102	74	0	176
3-yr. avg.	25	15	0	40	58	42	0	100	83	57	0	140
1E												
1994	11	9	0	20	22	14	0	36	33	23	0	56
1995	13	8	0	21	26	9	0	35	39	17	0	56
1996	13	11	0	24	21	21	0	42	34	32	0	66
1997	19	2	0	21	32	13	0	45	51	15	0	66
1998	18	8	0	26	32	18	0	50	50	26	0	76
1999	20	13	0	33	36	19	0	55	56	32	0	88
2000	25	9	0	34	31	20	0	51	56	29	0	85
2001	30	15	0	45	23	13	0	36	53	28	0	81
2002	18	16	1	35	47	17	1	65	65	33	2	100
2003	15	15	0	30	33	17	0	50	48	32	0	80
3-yr. avg.	21	15	0	36	34	16	0	50	55	31	1	86
1F												
1994	6	6	0	12	18	8	0	26	24	14	0	38
1995	7	4	0	11	27	8	0	35	34	12	0	46
1996	18	7	0	25	39	16	0	55	57	23	0	80
1997	27	3	0	30	37	16	0	53	64	19	0	83
1998	19	10	0	29	34	25	0	59	53	35	0	88
1999	14	11	0	25	23	12	0	35	37	23	0	60
2000	19	7	0	26	30	15	0	45	49	22	0	71
2001	20	10	0	30	31	11	0	42	51	21	0	72
2002	27	9	0	36	36	11	0	47	63	20	0	83
2003	33	19	0	52	34	19	0	53	67	38	0	105
3-yr. avg.	27	13	0	40	34	14	0	48	61	27	0	88
2A												
1994	56	20	0	76	14	8	0	22	70	28	0	98
1995	62	25	0	87	12	9	0	21	74	34	0	108
1996	82	24	0	106	28	7	0	35	110	31	0	141
1997	68	22	0	90	23	7	0	30	91	29	0	120
1998	140	73	0	213	50	28	0	78	190	101	0	291
1999	130	86	0	216	27	16	0	43	157	102	0	259

Table 2. Continued.

DAU/Year	Spring				Fall				Entire Season			
	M	F	U	Total	M	F	U	Total	M	F	U	Total
2000	132	49	0	181	21	12	0	33	153	61	0	214
2001	156	86	0	242	18	13	0	31	174	99	0	273
2002	154	57	1	212	23	17	0	40	177	74	1	252
2003	169	99	1	269	37	17	0	54	206	116	1	323
3-yr. avg.	160	81	1	242	26	16	0	42	186	97	1	284
3A												
1994	27	4	0	31	11	10	0	21	38	14	0	52
1995	31	10	0	41	16	7	0	23	47	17	0	64
1996	19	6	0	25	29	14	0	43	48	20	0	68
1997	17	5	0	22	17	7	0	24	34	12	0	46
1998	29	8	0	37	20	13	0	33	49	21	0	70
1999	37	12	0	49	27	11	0	38	64	23	0	87
2000	28	16	0	44	29	4	0	33	57	20	0	77
2001	38	10	0	48	8	9	0	17	46	19	0	65
2002	46	17	0	63	27	8	1	36	73	25	1	99
2003	96	52	0	148	23	12	0	34	120	63	0	183
3-yr. avg.	60	26	0	86	19	10	0	29	79	36	0	115

Table 3. Age distribution of black bear for Clearwater Region DAUs, 1994-present.

DAU/ Year	Sex	Age											Total
		Cub	1	2	3	4	5	6	7	8	9	10+	
1D													
1994	M	0	10	9	7	5	2	3	0	0	0	3	39
	F	1	2	7	3	4	3	1	1	2	4	2	30
1995	M	0	17	7	10	4	0	3	2	0	0	4	47
	F	0	8	4	6	0	4	3	2	1	0	6	34
1996	M	4	17	11	10	7	7	3	5	1	1	1	67
	F	2	2	18	5	7	1	1	1	3	1	2	43
1997	M	4	19	18	19	4	6	2	1	1	1	0	75
	F	1	10	6	8	0	8	1	4	1	1	5	45
1998	M	1	10	19	3	4	9	3	5	4	0	4	62
	F	0	11	13	7	5	2	4	1	1	2	9	55
1999	M	0	21	16	16	6	2	7	4	1	2	0	75
	F	0	10	4	6	3	3	1	2	2	1	1	33
2000	M	0	5	9	11	7	1	3	4	2	3	8	53
	F	4	14	10	13	6	2	5	0	1	0	1	56
2001	M	0	24	7	11	6	8	3	1	0	4	3	67
	F	0	12	5	5	1	4	4	3	0	3	3	40
2002	M	2	16	28	2	5	2	4	2	6	4	3	74
	F	0	11	12	5	2	2	3	3	4	0	10	52
2003	M	1	23	24	15	8	5	5	6	4	4	4	99
	F	0	13	14	6	8	7	3	5	1	4	12	73
1E													
1994	M	0	4	13	5	2	6	1	0	0	0	6	37
	F	0	5	2	2	2	0	4	0	0	0	1	16
1995	M	0	7	6	8	3	2	2	0	1	2	5	36
	F	0	5	1	3	2	0	1	2	0	0	1	15
1996	M	0	4	10	2	4	0	2	0	0	0	2	24
	F	0	4	7	2	5	1	3	0	1	1	3	27
1997	M	0	12	9	9	8	7	0	1	2	0	0	48
	F	0	3	6	5	1	0	0	0	0	0	0	15
1998	M	2	6	13	5	5	2	4	2	2	0	3	44
	F	1	2	7	2	5	0	2	1	0	1	3	24
1999	M	0	14	7	13	6	3	2	2	1	1	7	56
	F	0	2	3	6	6	3	2	1	2	0	6	31
2000	M	1	8	17	10	6	2	3	3	2	1	3	56
	F	0	1	3	4	6	1	3	0	3	0	7	28
2001	M	0	9	12	11	4	3	3	2	2	3	2	51
	F	0	4	6	7	2	2	0	3	0	0	4	28
2002	M	0	13	15	8	6	3	4	2	2	3	8	64
	F	0	2	7	5	4	3	3	1	2	3	3	33
2003	M	1	12	12	7	5	4	2	1	2	0	3	49
	F	0	4	4	7	1	3	1	2	1	2	8	33

Table 3. Continued.

Year	Sex	Age											Total
		Cub	1	2	3	4	5	6	7	8	9	10+	
1F													
1994	M	0	6	7	3	2	1	2	1	0	0	1	23
	F	0	2	2	1	1	1	1	1	0	1	3	13
1995	M	0	9	3	8	3	3	0	0	0	0	1	27
	F	0	2	2	2	2	2	1	0	0	0	0	11
1996	M	1	11	15	13	7	3	1	3	0	0	4	58
	F	0	1	7	2	2	3	0	1	0	0	4	20
1997	M	2	13	12	12	7	9	2	0	1	2	4	64
	F	1	1	3	7	1	1	1	0	0	2	2	19
1998	M	1	7	11	9	7	3	3	3	0	3	4	51
	F	0	2	6	1	7	2	3	1	1	2	6	31
1999	M	0	3	10	3	5	3	2	3	2	2	4	37
	F	0	2	4	1	2	4	0	3	0	2	5	23
2000	M	2	3	8	5	4	0	1	0	4	1	0	28
	F	0	0	3	3	2	1	0	1	0	0	5	15
2001	M	0	10	5	6	3	5	6	2	1	1	1	40
	F	0	1	3	4	1	1	0	1	0	0	2	13
2002	M	1	8	16	3	11	4	6	1	1	3	6	60
	F	0	1	5	4	0	1	0	2	0	1	4	18
2003	M	0	5	14	16	4	4	6	5	2	3	7	66
	F	0	4	5	11	3	1	2	1	0	0	5	32
2A													
1994	M	0	7	11	10	12	9	8	1	3	3	4	68
	F	0	1	6	4	4	3	2	1	0	0	5	26
1995	M	0	2	6	23	10	7	5	5	4	1	7	70
	F	1	1	3	10	3	6	1	2	2	0	3	32
1996	M	2	7	22	12	20	13	6	5	10	1	7	105
	F	0	2	7	3	2	4	3	3	0	2	4	30
1997	M	5	4	15	32	7	6	3	5	3	4	7	91
	F	1	2	5	7	0	1	1	1	2	3	6	29
1998	M	0	8	24	39	28	15	11	5	8	4	21	163
	F	1	5	6	15	9	7	4	7	2	4	25	85
1999	M	1	3	14	21	20	31	13	13	8	8	19	151
	F	0	2	9	7	14	10	10	12	5	4	23	96
2000	M	4	0	9	15	0	16	15	9	6	5	18	97
	F	2	0	2	7	13	11	4	2	0	0	8	49
2001	M	0	23	7	11	23	28	13	23	10	5	25	168
	F	0	9	1	12	4	7	8	7	6	8	33	95
2002	M	0	3	100	5	7	10	9	11	10	5	10	170
	F	0	2	28	5	5	2	6	8	4	0	10	70
2003	M	1	22	41	80	5	9	6	4	9	4	21	202
	F	0	7	8	42	4	7	8	6	3	6	22	113

Table 3. Continued.

Year	Sex	Age											Total
		Cub	1	2	3	4	5	6	7	8	9	10+	
3A													
1994	M	0	3	11	1	3	3	3	2	2	2	6	36
	F	0	4	0	0	2	2	1	0	1	1	3	14
1995	M	0	1	7	9	4	3	6	1	1	1	8	41
	F	0	0	3	1	1	0	1	1	3	1	4	15
1996	M	3	5	10	7	5	1	1	2	0	0	8	42
	F	0	0	4	1	2	0	0	2	3	2	2	16
1997	M	2	2	5	7	3	3	0	2	0	2	7	33
	F	1	0	2	3	4	0	0	0	0	2	0	12
1998	M	0	1	6	6	8	9	3	1	0	3	10	47
	F	0	1	2	2	1	2	2	2	2	2	5	21
1999	M	0	2	8	12	1	3	3	2	1	4	19	55
	F	0	2	1	3	4	2	4	2	0	0	5	23
2000	M	3	2	9	5	7	2	8	7	0	0	11	54
	F	0	0	1	3	1	2	2	2	2	0	7	20
2001	M	0	2	1	6	5	7	3	8	6	3	4	45
	F	0	0	0	4	1	1	1	1	2	0	7	17
2002	M	0	5	17	2	9	4	6	2	4	4	7	60
	F	0	1	2	1	4	1	1	2	3	1	4	20
2003	M	0	6	9	21	3	4	6	7	5	12	42	115
	F	0	0	7	13	1	2	6	2	4	8	18	61

Table 4. 2000-2010 Black Bear Plan management values and criteria for Clearwater Region DAUs, 1994-present.

DAU/Year	N ^a	% Females	% Males ^b ≥5	# Males ^b ≥5
1D				
1994	76	42	21	8
1995	84	43	19	9
1996	110	39	25	16
1997	122	38	15	11
1998	139	47	40	3
1999 ^c	110	30	21	16
2000	113	48	40	21
2001	112	38	28	19
2002	126	41	28	21
2003	172	42	28	28
3-year avg.	137	40	28	23
Desired levels		≤40	≥20	
1E				
1994	56	41	27	9
1995	58	29	35	13
1996	61	49	15	4
1997	66	23	20	10
1998	74	40	30	13
1999	86	36	29	16
2000	85	34	25	14
2001	80	35	29	15
2002	97	34	34	22
2003	80	40	24	12
3-year avg.	86	36	29	16
Desired levels		≤40	≥20	
1F				
1994	38	37	22	5
1995	46	26	15	4
1996	80	29	19	11
1997	83	23	28	18
1998	89	40	37	16
1999	60	38	43	16
2000	71	31	23	10
2001	72	29	40	16
2002	78	23	35	21
2003	98	33	41	27
3-year avg.	83	28	39	21
Desired levels		≤35	≥20	

Table 4. Continued.

DAU/Year	N ^a	% Females	% Males ^b ≥ 5	# Males ^b ≥ 5
2A				
1994	98	29	41	28
1995	108	31	41	29
1996	135	22	40	42
1997	120	24	31	28
1998	291	35	39	64
1999	259	39	61	92
2000	214	28	71	69
2001	273	36	62	104
2002	251	29	32	55
2003	315	36	26	53
3-year avg.	280	34	40	71
Desired levels		≤ 40	≥ 25	
3A				
1994	52	27	55	18
1995	64	27	49	20
1996	68	29	29	12
1997	46	26	42	14
1998	68	30	55	26
1999	87	26	52	28
2000	77	26	52	28
2001	65	29	69	31
2002	98	26	45	27
2003	176	35	67	76
3-year avg.	113	30	60	45
Desired levels		≤ 40	≥ 30	

^a Number of black bears that were sexed (excluding unknowns).

^b Number of black bears that were aged (excluding unknowns).

^c Spring only age data.

Table 5. Method of black bear harvest for Clearwater Region DAUs, 1994-present.

DAU/Year	Bait	Hound	Still	Incidental	Other	Total
1D						
1994	3	22	22	25	4	76
1995	0	29	17	36	1	83
1996	0	39	20	49	1	109
1997	0	46	15	61	0	122
1998	0	35	36	66	1	138
1999	0	22	48	39	0	109
2000	0	53	15	44	1	113
2001	2	49	32	29	0	112
2002	0	56	30	50	0	136
2003	1	91	31	52	1	176
1E						
1994	13	10	9	18	0	50
1995	4	16	19	18	1	58
1996	11	10	18	25	2	66
1997	7	16	12	31	0	66
1998	8	14	27	24	1	74
1999	12	18	17	39	1	87
2000	14	20	21	28	2	85
2001	12	14	39	15	0	80
2002	12	18	40	30	0	100
2003	9	17	24	26	4	80
1F						
1994	6	10	6	16	0	38
1995	4	12	2	25	1	44
1996	12	25	13	30	0	80
1997	20	20	20	23	0	83
1998	24	18	13	34	0	89
1999	16	20	9	15	0	60
2000	9	28	15	17	0	69
2001	17	17	8	12	1	55
2002	21	16	29	15	2	83
2003	39	13	27	26	0	105
2A						
1994	23	9	17	15	2	66
1995	56	11	18	22	0	107
1996	69	18	30	26	1	144
1997	65	11	24	18	2	120
1998	150	41	43	53	4	291
1999	152	17	41	47	2	259
2000	139	28	24	21	2	214
2001	199	17	39	15	2	272
2002	161	15	49	20	7	252
2003	225	16	65	16	1	323

Table 5. Continued.

DAU/Year	Bait	Hound	Still	Incidental	Other	Total
3A						
1994	11	2	8	15	3	39
1995	9	6	26	19	3	63
1996	5	1	25	32	1	64
1997	3	1	26	15	1	46
1998	16	5	25	23	1	70
1999	19	7	35	22	3	86
2000	12	4	35	20	6	77
2001	35	4	15	10	1	65
2002	39	4	39	17	0	99
2003	106	11	48	13	5	183

Table 6. Weapon type used to harvest black bear for Clearwater Region DAUs, 1994-present.

DAU/Year	Rifle	Archery	Muzzleloader	Handgun	Other	Total
1D						
1994	61	9	0	3	3	76
1995	78	2	0	4	0	84
1996	101	3	0	2	0	106
1997	113	4	0	5	0	122
1998	132	3	1	3	0	139
1999	99	4	1	6	0	110
2000	97	12	0	1	3	113
2001	96	13	0	3	0	112
2002	111	18	1	6	0	136
2003	155	15	0	5	1	176
1E						
1994	40	7	1	2	8	58
1995	48	7	0	3	0	58
1996	60	5	0	1	0	66
1997	62	3	0	1	0	66
1998	67	8	1	0	0	76
1999	83	3	0	1	1	88
2000	66	11	3	2	3	85
2001	73	4	0	2	1	80
2002	84	13	1	2	0	100
2003	70	9	0	1	0	80
1F						
1994	28	2	0	2	6	38
1995	38	5	1	2	0	46
1996	66	5	3	6	0	80
1997	79	3	0	1	0	83
1998	80	3	0	5	1	89
1999	55	2	0	3	0	60
2000	61	6	0	2	2	71
2001	51	2	0	1	1	55
2002	73	5	2	3	0	83
2003	86	9	6	3	1	105
2A						
1994	52	8	0	4	35	99
1995	82	19	2	4	1	108
1996	99	30	2	10	0	141
1997	89	25	1	5	0	120
1998	221	54	3	12	1	291
1999	197	49	3	9	1	259
2000	160	41	3	5	5	214
2001	192	53	6	15	6	272
2002	195	44	3	6	4	252
2003	253	53	9	3	5	323

Table 6. Continued.

DAU/Year	Rifle	Archery	Muzzleloader	Handgun	Other	Total
3A						
1994	32	4	4	2	0	42
1995	57	1	2	4	0	64
1996	60	1	0	4	0	65
1997	44	0	0	2	0	46
1998	63	3	0	4	0	70
1999	76	9	0	2	0	87
2000	70	4	0	1	2	77
2001	51	6	4	3	1	65
2002	74	20	2	3	0	99
2003	150	22	2	8	1	183

Table 7. Black bear depredation complaints for Clearwater Region DAUs, 1994-present.

Year	DAU					Total
	1D	1E	1F	2A	3A	
1994	0	2	1	0	0	3
1995	3	5	0	0	0	8
1996	1	7	7	1	1	17
1997	5	10	2	2	1	20
1998	9	10	17	12	2	50
1999	6	10	1	2	1	20
2000	8	7	2	0	0	17
2001	2	5	0	3	2	12
2002	4	3	0	0	0	7
2003	6	2	4	2	0	14

Table 8. Summary of 2003 seasons by method for Clearwater Region DAUs.

DAU	Units	Season type	Season	
			Dates	Length (days)
1D ^{a,b}	8A, 10A	General fall, any legal weapon ^c	Aug 30 - Oct 31	63
		General spring, any legal weapon	Apr 15 - May 15	31
		Pursuit	May 16 - Jul 31	77
1E ^{d,e}	8, 11, 11A, 13	General fall, any legal weapon	Aug 30 - Oct 31 ^f	63
		General spring, any legal weapon	Apr 15 - May 15	31
		Pursuit	May 15 - Jul 31	77
1F ^{b,g}	14, 15 ^h , 16, 18	General fall, any legal weapon	Sep 15 - Oct 31	47
		General spring, any legal weapon	Apr 15 - May 15	31
		Pursuit	May 15 - Jul 31	77
2A ⁱ	10, 12	General fall, any legal weapon	Aug 30 - Nov 3	66
		General spring, any legal weapon	Apr 1 - Jun 30	91
		Pursuit	Jul 1-31	31
3A ^j	16A, 17, 19, 20	General fall, any legal weapon	Aug 30 - Nov 18	81
		General spring, any legal weapon	Apr 1 - Jun 30	91

^a Bait prohibited.

^b Dogs prohibited April 15-30 and October 10-31.

^c Archery only and dogs prohibited August 30 - September 14.

^d Dogs prohibited April 15-30 and August 30 - September 14 in Units 8 & 11A; April 15-30 and October 10-31 in Units 11, 11A, & 13.

^e Bait prohibited August 30 - September 14 in Units 8 & 11A.

^f Fall season September 15 - October 31 in Units 11 & 13.

^g North portion of Unit 15 has been closed to take since 1999.

^h Unit 15 south open August 30 - October 31.

ⁱ Dogs prohibited October 10-31.

^j Dogs prohibited September 15 - October 31.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Black Bear Surveys and</u>
PROJECT:	<u>W-170-R-28</u>		<u>Inventories</u>
SUBPROJECT:	<u>3</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>9</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2003 to June 30, 2004</u>		

SOUTHWEST REGION

Abstract

Four hundred forty-six black bears were reported harvested in Area One of the Southwest Region in 2003. Bait station surveys were conducted in DAUs 1G and 1H during the reporting period. Visitation rates were 29% and 28% for DAUs 1G and 1H, respectively, in 2003. Reported harvest was 148, 74, and 224 black bears for DAUs 1G, 1H, and 1K, respectively. The reported harvest increased 4% in DAUs 1G and 1H. Harvest in DAU 1K decreased 17% in 2003. Data indicate percent females and percent males ≥ 5 years-of-age in the harvest criteria are being met in DAUs 1G and 1K. Harvest was well distributed among user groups in DAU 1G. Still hunting (stalking) and hound hunting methods contributed to the majority of the black bear harvest in DAU 1H. Baiting comprised most of the black bear kill in DAU 1K in 2003. Liberalized seasons were implemented in 1998 and again in 1999 with adoption of the 2000-2010 Black Bear Species Management Plan. Data for DAU 1G indicate the harvest criteria are stable. Harvest data for DAU 1K indicate that the elimination of the fall split season in 1998 and increase in spring season in 2002 contributed to a significant increase in black bear harvest.

Fifty-two black bears were reported harvested in DAU 3B in 2003. Harvest criteria are being met in this area. Still hunting was the dominant harvest technique in this area. Season changes were incorporated into the 2000-2010 Black Bear Species Management Plan to make this area consistent with statewide management direction.

AREA ONE

DAU 1G (GMUs 19A, 23, 24, 25)

Management Direction

Area One contains 12 DAUs. Harvest guidelines and population characteristics targets provide management goals for these DAUs. The 1992-2000 Black Bear Species Management Plan directed the Department to manage Area One to maintain or reduce harvest, improve age structure, and offer a variety of hunting opportunities.

The plan called for monitoring certain population characteristics as reflected in the harvest over three-year segments to evaluate the status of black bear populations. In DAUs where data indicated harvest reductions were necessary, the Department would evaluate harvest distribution, hunter density, season of harvest, and hunting methods before making a recommendation. Male, female, and overall median age and percent females were the harvest criteria monitored during the 1992-2000 planning period.

New, simpler criteria were developed in the 2000-2010 Black Bear Species Management Plan and took effect in the 1999 fall hunting season. These harvest criteria are the three-year running average of percent females and percent males ≥ 5 years old. Bait station survey trends are also considered when assessing population status. Harvest rates will be categorized as light, moderate, and heavy (Table 1). DAU 1G will be managed for moderate harvest rates.

Background

A statewide mandatory report requirement for harvested black bear was introduced in 1983. Most seasons in Area One were restricted in 1983 following implementation of the 1981-1985 Black Bear Management Plan. Area One was divided into DAUs when the 1986-1990 Black Bear Management Plan was implemented in 1986. Uniform seasons by DAU and more restrictive season structures were introduced at that time. Year-round black bear seasons and extra black bear tags were eliminated in DAU 1G in 1986. Slight modifications to the seasons proposed in the 1986-1990 plan were made based on monitoring of three consecutive years of harvest data and were reflected in the 1992 black bear harvest season. Further season reductions were incorporated into the 1992-2000 Black Bear Management Plan and took effect with the beginning of the 1993 black bear harvest season. More liberal seasons were implemented in the fall of 1998 and were continued into the 2003 framework (Table 2).

Population Surveys

A pilot bait station survey, using pork fat and anise oil as attractants, was implemented in DAU 1G in July 2003 (Table 4). Twenty transects were operated resulting in a 20% visitation rate (20 out of 100 stations visited by bears). Results from this pilot study indicated that 48 transects were needed to be operated in 2004 to achieve a statistically valid sample. The 2004 visitation rate was 29% (70 out of 240 stations visited by bears).

Harvest Characteristics

Reported harvest in DAU 1G was 4% higher in 2003 than in 2002 (Table 5). The black bear harvest in this DAU was greater in the fall than in the spring in 2003. Black bear age data indicate three-year-old male bears were the most frequently harvested age group in 2003 (Table 6). Harvest criteria for percent females and males ≥ 5 years old were within acceptable limits (Table 7). There was adequate distribution of harvest among user groups in DAU 1G in 2003 (Table 8). The rifle is the most prominent weapon used for harvesting black bear in DAU 1G (Table 9).

Depredations

Black bear depredations occur annually in the Southwest Region. Most complaints are associated with poor garbage disposal practices. Some orchard and apiary depredations do occur. Fewer depredations were reported in 2003 when compared to 2002 (Table 10). Tracking of depredation reports is sporadic at best and a more concerted effort is needed to improve reporting.

Management Implications

The 2000-2010 Black Bear Species Management Plan identifies three harvest level targets for black bear populations: light, moderate, and heavy. Light harvest strategies provide for thriving black bear populations in which a hunter could expect to encounter a lot of black bears and have an elevated chance of harvesting one. Moderate harvest is designed to provide maximum hunter opportunity yet maintain a viable self-sustaining black bear population. Heavy harvest criteria are employed where an obvious desire exists to severely reduce a black bear population. Areas of heavy harvest do not maintain a viable, self-sustaining black bear population over the long term.

DAU 1G appeared to be within acceptable harvest levels in 1998. As a result, the first two weeks of October were added back into the fall season to eliminate the split that caused confusion and regulation complication for sportsmen. This season change increased the bear harvest by more than 30%. Harvest parameters remained within desired limits. Subsequently, the fall 2000 season was opened on August 30 in this DAU to restore some hunter opportunity lost when seasons were curtailed in the early 1990s. This change also increased the bear harvest in the DAU. The 2003 harvest season reflected the third year of monitoring this change. Younger bears have become more preponderant in the harvest. The current season framework should be monitored through the 2004 seasons to further assess changes in harvest criteria and subsequent impact to the bear population.

DAU 1H (GMUs 22, 31, 32, 32A)

Management Direction

The 1992-2000 Black Bear Species Management Plan directed the Department to manage Area One to maintain or reduce harvest, improve age structure, and offer a variety of hunting opportunities. This included high-quality controlled hunts in DAU 1H.

New, simpler criteria were developed in the 2000-2010 Black Bear Species Management Plan and took effect in the 1999 fall hunting season. These harvest criteria are the three-year running average of percent females and percent males ≥ 5 years old. Bait station survey trends are also considered when assessing population status. Harvest rates will be categorized as light, moderate, and heavy (Table 1). DAU 1H will be managed for light harvest of black bear.

Background

A statewide mandatory report requirement for harvested black bear was introduced in 1983. Most seasons in Area One were restricted in 1983 following implementation of the 1981-1985 Black Bear Management Plan. Area One was divided into DAUs when the 1986-1990 Black Bear Management Plan was implemented in 1986. Uniform seasons by DAU and more restrictive season structures were introduced at that time. Season restrictions in DAU 1H were designed to protect the vulnerable black bear populations in that area. Slight modifications to the seasons proposed in the 1986-1990 plan were made based on monitoring of three consecutive years of harvest data and were reflected in the 1992 black bear harvest season. Further season reductions were incorporated into the 1992-2000 Black Bear Management Plan and took effect with the beginning of the 1993 black bear harvest season. More liberal seasons were implemented in the fall of 1998 and were continued into the 2003 framework (Table 2).

Population Surveys

Bait station surveys were conducted in the Middle Fork Weiser and Little Weiser River drainages of DAU 1H to monitor black bear population trends (Table 3). Sardines were used as the bait attractant. Twenty-eight percent of the stations (24 out of 85) were visited by black bear in June 2004. This visitation rate was the same as that documented in June 2002.

Harvest Characteristics

Reported harvest increased 4% in 2003 compared to 2002 in DAU 1H (Table 5). The black bear harvest was higher in the fall as compared to the spring in 2003. Black bear age data indicate three-year old male bears were the most frequently harvested age group in 2003 (Table 6). An increase occurred for the percent females in the harvest criteria (Table 7). Still and hound hunting methods are the dominant means of harvest in DAU 1H (Table 8). The rifle is the most used weapon of choice (Table 9).

Depredations

Black bear depredations occur annually in the Southwest Region. Most complaints are associated with poor garbage disposal practices. Some orchard and apiary depredations do occur. Fewer depredations were reported in 2003 when compared to 2002 (Table 10). Tracking of depredation reports is sporadic at best and a more concerted effort is needed to improve reporting.

Management Implications

The 2000-2010 Black Bear Species Management Plan identifies three harvest level targets for black bear populations: light, moderate, and heavy. Light harvest strategies provide for thriving black bear populations in which a hunter could expect to encounter a lot of black bears and have an elevated chance of harvesting one. Moderate harvest is designed to provide maximum hunter opportunity yet maintain a viable self-sustaining black bear population. Heavy harvest criteria are employed where an obvious desire exists to severely reduce a black bear population. Areas

of heavy harvest do not maintain a viable, self-sustaining black bear population over the long term.

Harvest parameters in DAU 1H showed a trend toward too many female black bears in the harvest. This did not seem logical under a conservative controlled hunt strategy; however, most black bears were harvested in September when females are vulnerable. The April 15 to May 15 spring season framework is a less vulnerable time period for female black bears; hence, spring permits were increased in 1998 to attempt to skew the sex ratio of the harvest further toward male black bears. This strategy has not yielded the most promising results. Black bear harvest has become nearly equal between the two seasons. Fall permits were increased in 2000 and the season extended to the end of October to respond to a clamor about increased black bear sightings in this DAU and another attempt at influencing male black bear harvest. This increase in permits did not lead to an appreciable increase in fall bear harvest. Subsequently, the spring and fall permit levels were increased to 75 each, beginning in the spring 2004 season. The goal is to increase the percentage of males in the harvest and to maintain a 30% or higher hunter success rate. It may turn out that the controlled hunt area is too small to protect the wider ranging adult male black bears, and a harvest rate of 30% or greater females may be the norm for a lightly hunted population under these conditions. Monitoring through the 2006 bear seasons will be necessary to evaluate the effect of current permit level changes on bear harvest. Education regarding species management plan harvest goals and population objectives is needed to help sportsmen understand that the seasons in this DAU are meant to provide for high black bear numbers and an increased chance for seeing black bears.

DAU 1K (GMUs 33, 39, 43)

Management Direction

The 1992-2000 Black Bear Species Management Plan directed the Department to manage Area One to maintain or reduce harvest, improve age structure, and offer a variety of hunting opportunities. This included high-quality controlled hunts in DAU 1H.

New, simpler criteria were developed in the 2000-2010 Black Bear Species Management Plan and took effect in the 1999 fall hunting season. These harvest criteria are the three-year running average of percent females and percent males ≥ 5 years old. Bait station survey trends are also considered when assessing population status. Harvest rates will be categorized as light, moderate, and heavy (Table 1). DAU 1K will be managed for moderate harvest rates.

Background

A statewide mandatory report requirement for harvested black bear was introduced in 1983. Most seasons in Area One were restricted in 1983 following implementation of the 1981-1985 Black Bear Management Plan. Area One was divided into DAUs when the 1986-1990 Black Bear Management Plan was implemented in 1986. Uniform seasons by DAU and more restrictive season structures were introduced at that time. Slight modifications to the seasons proposed in the 1986-1990 plan were made based on monitoring of three consecutive years of harvest data and were reflected in the 1992 black bear harvest season. Further season reductions

were incorporated into the 1992-2000 Black Bear Management Plan and took effect with the beginning of the 1993 black bear harvest season. More liberal seasons were implemented in the fall of 1998 and were continued into the 2003 framework (Table 2).

Population Surveys

A DNA mark-recapture project was implemented in July 2003, to assess population size and survival rates of black bears in GMU 39. Hair was snagged from bears coming into small bait sites systematically located throughout the unit. Bear hair snares consisted of one strand of barbed wire around 4-6 perimeter trees encompassing an area of 10-30 m². The barbed wire was anchored to trees at a height of 50 cm above the ground. The sites were moved to new areas and the process repeated to achieve three replicates. A total of 212 hair snare traps were operated and 150 useable bear hair samples were collected in 2003. DNA samples were not analyzed during this reporting period.

Harvest Characteristics

Reported harvest decreased 17% in 2003 when compared to 2002 totals in DAU 1K (Table 5). Hunters harvested more bears in the spring than in the fall season in 2003. Black bear age data indicate three-year old male bears were the most frequently harvested age group in 2003 (Table 6). The percent females in the harvest was at the upper end of desired levels (Table 7). Baiting was the most frequently used method to kill black bears in DAU 1K in 2003 (Table 8). Rifle was the most reported weapon of choice in DAU 1K (Table 9).

Depredations

Black bear depredations occur annually in the Southwest Region. Most complaints are associated with poor garbage disposal practices. Some orchard and apiary depredations do occur. Fewer depredations were reported in 2003 when compared to 2002 (Table 10). Tracking of depredation reports is sporadic at best and a more concerted effort is needed to improve reporting.

Management Implications

The 2000-2010 Black Bear Species Management Plan identifies three harvest level targets for black bear populations: light, moderate, and heavy. Light harvest strategies provide for thriving black bear populations in which a hunter could expect to encounter a lot of black bears and have an elevated chance of harvesting one. Moderate harvest is designed to provide maximum hunter opportunity yet maintain a viable self-sustaining black bear population. Heavy harvest criteria are employed where an obvious desire exists to severely reduce a black bear population. Areas of heavy harvest do not maintain a viable, self-sustaining black bear population over the long term.

The fall split season was eliminated in 1998 in DAU 1K for the same reasons as mentioned above for DAU 1G. This change did result in a significant increase in fall black bear harvest, as well as overall annual harvest. This increase was also apparent in the 1999 harvest. The 2000

harvest was even larger than 1998 and 1999, nearly equaling harvest levels of the early 1990s that precipitated significant season reductions in 1992 in this DAU. The Commission further expanded season lengths for the spring 2002 black bear season. This change probably contributed to the 55% higher harvest of black bears in the spring 2002 and 2003 seasons as compared to the 1999-2001 three-year average. The percent female bears in the harvest parameter in DAU 1K is now near the maximum level desired. The harvest associated with these season changes needs to be monitored closely to prevent large declines in the black bear population and subsequent hunter complaints.

AREA THREE

DAU 3B (GMUs 20A, 26, 27)

Management Direction

Area Three is divided into two analysis units, one north and one south of the Salmon River. Harvest in this area is dominated by young, dispersing black bears and occurs mostly along river corridors and backcountry landing strips. The harvest is not thought to be reflective of the overall population. The Department will manage Area Three black bear populations to maintain moderate harvest targets of 25-35% age 5+ black bears in the male harvest and 30-40% females in the total harvest. Minor season adjustments may be implemented to conform to statewide management direction. There is no dog-training season in Area Three.

Harvest in Area Three is consistently low, resulting in small samples from which to monitor harvest parameters. Harvest criteria will be monitored but will only apply if average annual harvest is at least 30 black bears. Professional judgment will be used when average annual harvest is less than 30 black bears.

Background

A large portion of DAU 3B is road-less, lying within the Frank Church River-of-No-Return Wilderness boundaries. Except for a few mining roads penetrating the periphery, access in these units is restricted to boat, airplane, pack-string, or foot travel. A statewide mandatory report requirement for harvested black bear was introduced in 1983. Year-round seasons and extra black bear tags were eliminated with implementation of the 1986-1990 Black Bear Management Plan. Seasons were shortened to conform to statewide management direction listed in the 1992-2000 Black Bear Management Plan. The fall and spring seasons were expanded again with implementation of the 2000-2010 Black Bear Plan (Table 2).

Population Surveys

No population surveys were conducted in DAU 3B during the reporting period.

Harvest Characteristics

Reported harvest increased 35% in 2003 compared to 2002 for DAU 3B (Table 5). The black bear harvest in DAU 3B was greater in the fall than spring season. Black bear age data indicate five-year old male bears were the most frequently harvested age group in 2003 (Table 6). Percent females in the harvest was slightly lower than that reported in 2002 (Table 7). Still hunting was the primary method of kill in this DAU (Table 8). The prominent weapon of choice in DAU 3B is the rifle (Table 9).

Depredations

One depredation was reported in DAU 3B in 2003.

Management Implications

Harvest in DAU 3B is usually minor. Small sample sizes preclude meaningful interpretation of harvest criteria. Minor changes to season structure were incorporated into the 1992-2000 Black Bear Management Plan to make this DAU consistent with statewide management direction. Minor changes to the fall season structure were implemented with the 2000-2010 Black Bear Species Management Plan. A two-black bear bag limit, discounted non-resident bear tag fees, and a longer fall season was adopted by the Commission beginning with the 2000 season in response to sportsmen's unsubstantiated concerns of black bear predation on elk calves in the Middle Fork Elk Zone. The Department will continue to monitor the harvest criteria for DAU 3B to assess the effects of these season changes on black bear populations.

Table 1. Harvest criteria for black bear in Idaho.

Criteria	Light harvest	Moderate harvest	Heavy harvest
% Females	<30	30-40	>40
% Males \geq 5	>35	25-35	<25
Bait station survey	Increasing	Stable	Decreasing

Table 2. Summary of 2003 seasons by method for Southwest Region DAUs.

DAU	Units	Season type	Season	
			Dates	Length (days)
1G ^a	19A	General fall, any legal weapon	Aug 30 - Oct 31	63
		General spring, any legal weapon	Apr 15 - Jun 15	62
		Pursuit	Jun 16 - Jul 31	46
	23, 24, 25	General fall, any legal weapon	Aug 30 - Oct 31	63
		General spring, any legal weapon	Apr 15 - May 31	47
		Pursuit	Jun 1 - Jul 31	61
1H ^b	22, 31	Controlled fall ^c , any legal weapon	Sep 1 - Oct 31	61
		Controlled spring ^d , any legal weapon	Apr 15 - May 22	38
		Pursuit	May 23 - Jul 31	69
	32, 32A	Controlled fall ^c , any legal weapon	Sep 1 - Oct 31	61
		Controlled spring ^d , any legal weapon	Apr 15 - May 22	38
		Pursuit	May 23 - Jul 31	69
1K	33, 39 ^e	General fall, any legal weapon	Aug 30 - Oct 31	63
		General spring, any legal weapon	Apr 15 - Jun 15	62
		Pursuit	Jun 16 - Jul 31	47
	43 ^a	General fall, any legal weapon	Aug 30 - Oct 31	63
		General spring, any legal weapon	Apr 15 - May 31	47
		Pursuit	Jun 1 - Jul 31	61
3B ^f	20A	General fall, any legal weapon	Aug 30 - Nov 18	81
		General spring, any legal weapon	Apr 1 - Jun 30	91
	26, 27	General fall, any legal weapon	Aug 30 - Nov 18	81
General spring, any legal weapon		Apr 15 - Jun 30	77	
		Pursuit	Jul 1-31	31

^a Dogs prohibited October 1-31.

^b Bait prohibited.

^c 75 permits; dogs prohibited October 1-31.

^d 75 permits; dogs prohibited.

^e Dogs prohibited October 5-31.

^f Dogs prohibited September 15 - October 31; two bear bag limit.

Table 3. Bait station (sardines) survey results from Council routes (DAU 1H), 1994-present.

Year	Survey number	Survey dates	Total transects available	Total transects sampled	Total stations sampled	Total stations visited by black bear	90% confidence interval	
							%	(+/-)
1994	1	6/30-7/5	17	17	85	15	18	6.7
1995	1	6/22-27	17	17	85	13	15	6.5
1996	1	6/27-7/2	17	17	85	30	35	8.4
1997	1	6/26-7/1	16	16	80	14	18	7.0
1998	1	7/5-13	17	17	85	19	22	7.4
1999	1	7/1-6 ^a	16	16	80	31	39	10.0
2000	1	6/22-27	17	17	85	32	38	8.6
2001	1	6/17-22	17	17	85	30	35	8.7
2002	1	6/27-7/2	17	17	85	24	28	8.2
2003 ^b	-	-	-	-	-	-	-	-
2004	1	6/25-30	17	17	85	24	28	8.2

^a Nineteen stations were not checked until 7/13/99.

^b Survey not conducted.

Table 4. Bait station (pork fat and anise oil) survey results from DAU 1G, 2003-present.

Year	Survey number	Survey dates	Total transects available	Total transects sampled	Total stations sampled	Total stations visited by black bear	90% confidence interval	
							%	(+/-)
2003	1	7/22-8/14	92	20	100	20	20	6.6
2004	1	7/7-8/3	92	48	240	70	29	4.8

Table 5. Black bear harvest by season and sex for Southwest Region DAUs, 1994-present.

DAU/Year	Spring			Fall			Entire season		
	M	F	Total	M	F	Total	M	F	Total
1G									
1994	22	10	32	18	12	30	40	22	62
1995	33	12	45	36	25	61	69	37	106
1996	40	17	57	36	22	58	76	39	115
1997	27	11	38	37	28	65	64	39	103
1998	38	10	48	36	19	55	74	29	103
1999	37	16	53	51	32	83	88	48	136
2000	44	12	56	57	23	80	101	35	136
2001	34	18	52	50	34	84	84	52	136
2002	37	13	50	57	35	92	94	48	142
2003	40	12	52	57	39	96	97	51	148
3-yr. avg.	37	14	51	55	36	91	92	50	142
1H									
1994	8	3	11	6	7	13	14	10	24
1995	7	1	8	11	10	21	18	11	29
1996	14	3	17	8	7	15	22	10	32
1997	15	6	21	23	8	31	38	14	52
1998	23	10	33	21	12	33	44	22	66
1999	14	10	24	16	12	28	30	22	52
2000	22	13	35	15	18	33	37	31	68
2001	17	8	25	14	22	36	31	30	61
2002	24	9	33	22	16	38	46	25	71
2003	18	5	23	23	28	51	41	33	74
3-yr. avg.	20	7	27	20	22	42	40	29	69
1K									
1994	33	20	53	44	20	64	77	40	117
1995	52	21	73	49	36	85	101	57	158
1996	47	32	79	31	20	51	78	52	130
1997	34	23	57	41	33	74	75	56	131
1998	39	24	63	75	55	130	114	79	193
1999	66	26	92	65	42	107	131	68	199
2000	54	26	80	75	65	140	129	91	220
2001	66	30	96	65	42	107	131	72	203
2002	103	35	138	77	56	133	180	91	271
2003	87	59	146	48	30	78	135	89	224
3-yr. avg.	85	41	126	63	43	106	149	84	233

Table 5. Continued.

DAU/Year	Spring			Fall			Entire season		
	M	F	Total	M	F	Total	M	F	Total
3B									
1994	5	3	8	26	18	44	31	21	52
1995	4	7	11	14	8	22	18	15	33
1996	7	2	9	29	8	37	36	10	46
1997	5	3	8	8	8	16	13	11	24
1998	9	6	15	9	5	14	18	11	29
1999	2	0	2	19	15	34	21	15	36
2000	3	1	4	23	13	36	26	14	40
2001	5	4	9	29	13	42	34	17	51
2002	7	6	13	40	17	57	47	23	70
2003	17	5	22	19	11	30	36	16	52
3-yr. avg.	10	5	15	29	14	43	39	19	58

Table 6. Age distribution of black bear for Southwest Region DAUs, 1994-present.

DAU/ Year	Sex	Age											Unknown	Total
		Cub	1	2	3	4	5	6	7	8	9	10+		
1G														
1994	M	0	4	14	3	5	6	2	1	1	0	0	5	41
	F	0	0	6	2	1	1	4	0	0	0	3	5	22
1995	M	1	7	11	18	2	4	6	6	0	4	7	3	69
	F	0	5	7	6	1	1	3	4	1	2	5	2	37
1996	M	0	1	18	8	15	1	6	5	1	0	10	11	76
	F	1	0	5	2	3	0	1	3	1	1	10	12	39
1997	M	0	8	6	18	6	7	2	2	1	2	9	3	64
	F	0	1	5	8	1	4	1	2	1	2	8	6	39
1998	M	0	6	8	10	14	10	10	3	2	2	7	2	74
	F	0	4	6	4	3	2	3	0	0	3	0	4	29
1999	M	0	12	17	14	2	6	1	8	1	1	13	13	88
	F	0	6	7	6	2	5	5	3	0	3	5	6	48
2000	M	1	4	31	18	7	4	9	5	3	1	10	8	101
	F	1	1	4	4	2	3	4	4	0	1	7	4	35
2001	M	0	17	6	24	3	6	3	3	5	2	6	9	84
	F	0	5	4	4	3	4	2	7	5	1	11	6	52
2002	M	0	3	26	6	17	5	5	1	4	7	9	11	94
	F	2	8	8	1	4	3	3	2	3	0	9	5	48
2003	M	0	17	11	25	7	11	5	3	2	3	7	6	97
	F	1	8	8	7	4	7	2	1	1	1	8	3	51
1H														
1994	M	0	2	5	1	1	1	0	0	1	1	0	2	14
	F	0	1	1	2	1	0	2	0	0	1	1	1	10
1995	M	0	3	1	2	3	3	0	0	0	1	0	5	18
	F	0	1	3	2	1	0	1	1	0	0	1	1	11
1996	M	0	2	10	2	1	0	1	1	0	0	2	3	22
	F	0	0	4	0	0	0	0	0	0	1	1	4	10
1997	M	0	5	7	7	4	0	4	2	2	1	1	5	38
	F	0	1	0	2	2	1	2	0	1	1	3	1	14
1998	M	0	3	13	4	8	2	2	2	1	1	5	3	44
	F	0	0	4	3	2	0	2	1	3	2	1	4	22
1999	M	0	5	6	3	3	3	3	0	3	0	3	1	30
	F	0	1	2	3	1	3	1	1	1	0	5	4	22
2000	M	0	2	9	4	5	2	5	1	3	0	0	6	37
	F	0	0	6	2	6	3	0	3	3	0	5	3	31
2001	M	0	6	5	7	2	5	1	0	1	0	1	3	31
	F	0	1	4	7	2	4	3	0	0	2	4	3	30
2002	M	0	5	13	3	8	1	4	0	2	1	5	4	46
	F	0	2	0	4	6	2	1	0	0	1	6	3	25
2003	M	0	4	9	11	3	3	1	2	0	2	1	5	41
	F	0	5	7	5	2	2	2	3	0	1	3	3	33

Table 6. Continued.

DAU/ Year	Sex	Age											Unknown	Total
		Cub	1	2	3	4	5	6	7	8	9	10+		
1K														
1994	M	0	8	23	5	7	6	8	4	2	3	4	7	77
	F	0	0	12	3	2	8	3	0	0	2	6	4	40
1995	M	0	14	12	34	5	3	9	3	3	4	3	11	101
	F	0	10	3	14	3	2	6	1	2	1	6	9	57
1996	M	0	8	25	6	14	2	3	2	3	1	6	8	78
	F	0	4	14	9	6	2	0	2	1	1	5	8	52
1997	M	2	8	9	25	2	13	3	1	4	0	5	3	75
	F	0	3	9	12	2	4	1	3	4	3	9	6	56
1998	M	0	25	23	5	16	8	11	4	3	5	5	9	114
	F	0	12	7	7	9	4	7	3	1	4	17	8	79
1999	M	0	21	21	27	8	19	3	10	3	2	8	9	131
	F	0	8	6	10	6	6	8	5	0	2	7	10	68
2000	M	2	19	21	13	15	5	10	4	8	1	11	20	129
	F	1	11	20	6	6	5	10	1	3	3	9	16	91
2001	M	0	20	11	26	3	13	8	13	1	4	7	25	131
	F	0	7	3	10	7	7	3	4	1	4	19	7	72
2002	M	2	13	46	24	26	11	10	2	13	6	16	11	180
	F	3	7	18	9	11	5	7	1	3	2	15	10	91
2003	M	0	19	12	30	6	15	7	3	7	5	16	15	135
	F	0	8	7	15	4	6	6	3	4	10	15	11	89
3B														
1994	M	0	4	4	2	3	0	0	0	2	1	13	2	31
	F	0	1	7	4	0	1	1	0	0	0	2	5	21
1995	M	0	1	3	5	0	1	0	1	0	0	1	6	18
	F	0	1	1	3	0	2	1	0	0	0	5	2	15
1996	M	0	1	5	5	10	0	0	2	2	0	7	4	36
	F	0	0	1	1	0	0	2	2	1	1	0	2	10
1997	M	0	1	0	4	4	1	0	0	0	0	1	2	13
	F	0	0	1	0	2	2	0	1	1	2	2	0	11
1998	M	0	0	1	3	1	2	0	1	2	0	3	5	18
	F	0	1	1	0	2	2	0	0	1	0	4	0	11
1999	M	0	2	1	3	1	3	4	1	0	0	4	2	21
	F	0	0	1	1	1	0	2	0	0	1	5	4	15
2000	M	1	0	9	4	1	2	0	1	4	1	2	1	26
	F	0	1	4	2	1	1	1	1	0	0	3	0	14
2001	M	0	2	6	7	1	4	1	1	2	4	2	4	34
	F	0	3	0	5	2	2	0	2	1	1	1	0	17
2002	M	0	1	7	4	11	5	2	0	5	0	9	3	47
	F	0	0	1	4	7	0	1	2	1	2	1	4	23
2003	M	0	4	2	4	1	8	1	1	0	0	9	6	36
	F	0	2	0	2	1	2	2	0	1	0	5	1	16

Table 7. 2000-2010 Black Bear Plan management values, criteria, and median ages for Southwest Region DAUs, 1994-present.

DAU/Year	N ^a	%	Median age			%	# Males	N ^b
			Females	Males	Females			
1G								
1994	63	35	2	3	3	26	40	50
1995	106	36	3	3	3	40	67	100
1996	115	34	4	7	4	35	76	91
1997	103	37	3	5	4	38	64	93
1998	103	28	4	3	7	47	74	97
1999	136	35	3	5	3	40	88	117
2000	136	26	3	6	3	34	101	124
2001	136	38	3	7	4	33	84	121
2002	142	34	4	4	4	36	94	129
2003	148	34	3	4	3	34	97	139
3-year avg.	142	35	3	5	4	34	92	130
Desired levels		30-40	≥ 4	≥ 6	≥ 5	25-35		
1H								
1994	24	42	2	4	3	25	14	21
1995	29	38	4	3	3	31	18	23
1996	32	31	2	2	2	21	22	25
1997	52	27	3	6	4	30	38	46
1998	66	33	4	5	4	32	44	59
1999	52	42	4	5	4	41	30	47
2000	68	46	4	5	4	35	37	59
2001	61	49	3	4	3	29	31	55
2002	71	35	4	4	4	31	46	64
2003	74	45	3	3	3	25	41	66
3-year avg.	69	43	3	4	3	28	39	62
Desired levels		≤ 30	≥ 4	≥ 6	≥ 5	≥ 35		
1K								
1994	117	35	2	5	3	34	76	97
1995	156	37	3	3	3	28	99	135
1996	127	40	3	3	3	24	76	114
1997	131	43	3	4	3	36	75	120
1998	193	41	3	5	4	34	113	176
1999	199	34	3	4	3	37	131	180
2000	220	41	3	3	3	36	129	184
2001	203	35	3	5	4	43	131	171
2002	271	34	3	4	4	34	180	250
2003	224	40	3	5	4	44	135	198
3-year avg.	233	36	3	5	4	40	149	206
Desired levels		30-40	≥ 4	≥ 6	≥ 5	25-35		

Table 7. Continued.

DAU/Year	N ^a	%	Median age			%	# Males	N ^b
			Females	Males	Females			
3B								
1994	50	42	8	4	4	58	29	42
1995	28	50	3	5	3	27	14	24
1996	44	25	4	7	4	33	33	41
1997	24	46	4	7	4	18	13	22
1998	29	38	5	5	5	62	18	24
1999	36	42	5	9	6	58	21	30
2000	40	35	3	4	3	40	26	39
2001	51	33	4	4	4	47	34	47
2002	70	33	4	4	4	48	47	63
2003	52	31	5	6	5	63	36	45
3-year avg.	58	32	4	5	4	53	39	52
Desired levels		30-40	≥ 4	≥ 6	≥ 5	25-35		

^a Number of black bears that were sexed (excluding unknowns).

^b Number of black bears that were aged (excluding unknowns).

Table 8. Method of black bear harvest for Southwest Region DAUs, 1994-present.

DAU/Year	Bait	Hound	Still	Incidental	Other	Total
1G						
1994	16	7	21	17	2	63
1995	17	21	39	28	1	106
1996	13	18	51	31	2	115
1997	26	17	21	36	3	103
1998	22	18	21	38	4	103
1999	23	33	31	46	3	136
2000	31	30	37	35	3	136
2001	38	29	36	26	7	136
2002	36	29	39	36	2	142
2003	41	32	40	35	0	148
1H						
1994	1	8	13	1	1	24
1995	0	12	16	1	0	29
1996	0	9	21	0	2	32
1997	1	17	30	2	2	52
1998	0	25	32	7	2	66
1999	0	24	26	2	0	52
2000	0	20	41	5	2	68
2001	1	23	30	6	1	61
2002	0	23	42	5	1	71
2003	0	31	40	3	0	74
1K						
1994	27	18	28	38	6	117
1995	34	22	56	42	4	158
1996	35	19	38	36	2	130
1997	29	16	38	47	1	131
1998	30	23	61	75	4	193
1999	39	30	81	45	4	199
2000	53	32	72	56	7	220
2001	55	52	56	34	7	204
2002	74	60	73	56	8	271
2003	94	48	40	34	8	224
3B						
1994	2	0	14	33	3	52
1995	0	0	16	16	1	33
1996	0	1	17	27	1	46
1997	0	0	8	14	2	24
1998	0	1	14	14	0	29
1999	0	0	10	25	1	36
2000	1	0	18	19	2	40
2001	2	1	15	30	3	51
2002	2	0	24	44	0	70
2003	10	1	22	18	1	52

Table 9. Weapon type used to harvest black bear for Southwest Region DAUs, 1994-present.

DAU/Year	Rifle	Archery	Muzzleloader	Handgun	Other	Total
1G						
1994	53	7	0	1	2	63
1995	96	5	1	3	1	106
1996	93	17	1	4	0	115
1997	86	11	2	2	2	103
1998	92	8	0	3	0	103
1999	114	14	1	7	0	136
2000	109	17	0	4	6	136
2001	104	15	3	9	5	136
2002	107	23	1	7	4	142
2003	120	16	3	9	0	148
1H						
1994	22	0	0	2	0	24
1995	26	1	0	1	1	29
1996	27	3	0	0	2	32
1997	46	4	0	2	0	52
1998	60	6	0	0	0	66
1999	45	4	1	1	1	52
2000	61	3	0	3	1	68
2001	52	4	1	4	0	61
2002	64	4	0	3	0	71
2003	61	5	0	8	0	74
1K						
1994	90	21	0	5	1	117
1995	119	29	1	9	0	158
1996	102	15	3	10	0	130
1997	110	15	1	4	1	131
1998	170	15	2	6	0	193
1999	162	24	0	13	0	199
2000	179	25	2	10	4	220
2001	169	21	2	9	3	204
2002	201	44	3	17	6	271
2003	166	38	6	8	6	224
3B						
1994	52	0	0	0	0	52
1995	32	1	0	0	0	33
1996	45	0	0	1	0	46
1997	22	0	0	2	0	24
1998	29	0	0	0	0	29
1999	35	1	0	0	0	36
2000	39	0	0	1	0	40
2001	48	2	0	0	1	51
2002	68	2	0	0	0	70
2003	51	0	0	0	1	52

Table 10. Black bear depredation complaints for Southwest Region DAUs, 1994-present.

Year	DAU				Total
	1G	1H	1K	3B	
1994	3	0	3	1	7
1995	7	2	11	1	21
1996	11	4	3	1	19
1997	1	1	2	1	5
1998	5	1	5	0	11
1999	4	5	1	0	10
2000	0	2	12	0	14
2001	0	1	1	0	2
2002	0	7	2	0	9
2003	0	2	0	1	3

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Black Bear Surveys and</u>
PROJECT:	<u>W-170-R-28</u>		<u>Inventories</u>
SUBPROJECT:	<u>4</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>9</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2003 to June 30, 2004</u>		

MAGIC VALLEY REGION

Abstract

Thirty black bears were harvested in DAU 4A in 2003, 23% below the 2000-2002 mean of 35 black bears. The 2000, 2001, and 2002 harvest of 42, 41, and 40, respectively, are the largest number of bears harvested in this DAU during the last 15 years and provides the first adequate sample of bears since 1994, which will allow the use of criteria established in the Black Bear Management Plan for monitoring black bear populations. Baiting, hound hunting, incidental, and still-hunting accounted for 37%, 37%, 10%, and 13%, respectively, of the black bears harvested. Most black bears were taken by rifle (87%), while eight bears (22%) were killed with archery equipment. The Department and USDA Wildlife Services did not receive any depredation complaints during this reporting period.

AREA FOUR

DAU 4A (GMUs 44, 45, 48, 49)

Management Direction

The 1992-2000 Black Bear Management Plan directed the Department to manage DAU 4A to reduce or maintain harvest and work with the livestock industry and the USDA Wildlife Services to gather more data about black bears that are killed in defense of private property. Management objectives in the 2000-2010 plan are to manage the DAU to maintain moderate harvest targets of 25-35% age 5+ black bears in the male harvest and 30-40% females in the total harvest.

Background

The units in DAU 4A are on the southern edge of black bear range in Idaho and black bear densities are relatively low. Harvest in this DAU generally comprises less than 5% of the annual statewide black bear harvest. Urban development in the Big Wood Valley (Units 48 and 49) and livestock grazing are the primary influences on black bear habitat in this DAU.

Separate spring and fall seasons were implemented in Units 45, 48, and 49 in the 1970s. However, year-round seasons remained in effect in Unit 44 through June 1986 because of livestock industry and landowner concerns. Restrictions on fall dog-training apply in Units 44, 45, 48, and 49 during October to minimize conflicts with deer and elk hunters.

Populations Surveys

Bait station surveys were conducted for the first time in DAU 4A in 2003. Twenty transects were sampled in July 2003 with seven transects in Unit 44, two in Unit 45, six in Unit 48 and five in Unit 49. Of the 100 bait sites surveyed, bears visited 14 during the twenty-one day survey period (Table 1).

Harvest Characteristics

The 2003 spring and fall hunting seasons were unchanged from 2002. Both seasons followed frameworks adopted in the 2000-2010 Black Bear Management Plan (Table 2).

Thirty black bears were harvested in 2003, which is 19% below the three-year average for this DAU. Sixty-three percent of the black bear harvest occurred during the spring season, which is the highest number of bears taken in the spring during the preceding nine years (Table 3). This change in harvest may have occurred because access to mid and high elevations during the 2003 spring season was good because of moderate snow pack and warm spring weather.

Forty-seven percent of the black bears harvested in 2003 were less than five years old (Table 4). Total harvest (hunter harvest and depredation kill) of black bears in DAU 4A in 2003 was adequate for the third year in a row to allow application of harvest criteria established in the 2000-2010 management plan (Table 5).

Still and incidental hunting only accounted for 23% of the total hunter harvest of all black bears harvested in this DAU in 2003. Eleven of 30 hunter-harvested black bears were taken over bait in 2003 compared to four of 36 in 2002. Hound hunting comprised 37% of the remaining harvest for 2003 (Table 6).

Rifles accounted for 87% of the 2003 black bear harvest. Rifle harvest as a percentage of the total hunter harvest was higher in 2003 compared to 2001 and 2002. All other weapon types combined only accounted for 13 % of the harvest (Table 7).

All depredation complaints reported to Idaho Fish and Game involved nuisance black bears in the Big Wood River Valley. In 2003, four complaints were received on black bears getting into garbage cans, dumpsters, homes, or bird feeders in Unit 48 (Table 8).

Wildlife Services personnel handle depredations on livestock. From 1993-2002, we received mortality reports on 22 black bears dispatched by Wildlife Services for this DAU (Table 8). In 2003, Wildlife Services personnel did not report dispatching any black bears.

Dog-training Season

A standard dog-training season of June 1 - July 31 was implemented in 2003.

Management Implications

Because of the small number of black bears typically harvested in this DAU, management decisions have not been based exclusively on the established monitoring criteria. The data suggest black bear harvest has been moderate (2001-2003 average of 30% females in the harvest and 42% 5+-year-old males), and it is believed the black bear population has increased in recent years. Percent females in the harvest are meeting objectives, but males ≥ 5 years old in the harvest are exceeding current plan objectives. Black bear complaints and depredation problems remain at tolerable levels. Nuisance complaints in the Wood River Valley were the only significant depredation problem in 2003.

Table 1. Bait station survey results from Magic Valley routes, 2003.

Year	Unit(s) surveyed	Survey dates	Total transects available	Total transects sampled	Total stations sampled	Total stations visited by black bear	90% confidence interval	
							%	(+/-)
2003	44, 45, 48, 49	7/3-28	20	20	100	14	41	5.7

Table 2. Summary of 2003 seasons by method for Magic Valley Region DAUs.

DAU	Units	Season Type	Season	
			Dates	Length (Days)
4A	44, 45, 48, 49	General Spring, any legal weapon	Apr 15 - May 31	47
		General Fall, any legal weapon	Aug 30 - Oct 31	63
		Pursuit	Jun 1 - Jul 31	61

Table 3. Black bear harvest by season and sex for Magic Valley Region DAUs, 1994-present.

DAU/Year	Spring			Fall			Entire Season		
	M	F	Total	M	F	Total	M	F	Total
4A									
1994	12	5	17	7	6	13	19	11	30
1995	8	2	10	7	1	8	15	3	18
1996	7	3	10	1	2	3	8	5	13
1997	9	5	14	9	5	14	18	10	28
1998	8	5	13	10	2	12	18	7	25
1999	9	4	13	3	6	9	12	10	22
2000	10	1	11	18	13	31	28	14	42
2001	8	4	12	19	10	29	27	14	41
2002	10	2	12	17	11	28	27	13	40
2003	13	6	19	9	2	11	22	8	30
3-year avg.	10	4	14	15	8	23	25	12	37

Table 4. Age distribution of black bear for Magic Valley Region DAUs, 1994-present.

Year	Sex	Age											Total
		Cub	1	2	3	4	5	6	7	8	9	10+	
4A													
1994	M	1	4	5	3	1	3	0	1	1	0	0	19
	F	0	0	1	1	2	0	1	1	1	0	3	10
1995	M	1	3	2	4	2	0	0	0	0	0	1	13
	F	0	1	0	1	0	1	0	0	0	0	2	5
1996	M	1	0	1	0	3	0	0	1	1	1	0	8
	F	0	0	1	2	2	0	0	0	0	0	0	5
1997	M	2	0	2	4	1	1	1	1	0	0	0	12
	F	1	0	4	1	0	0	1	1	1	0	1	10
1998	M	0	3	2	2	6	2	1	0	1	0	0	17
	F	2	1	1	3	1	0	0	1	0	0	1	10
1999	M	0	4	3	2	0	1	3	2	1	1	0	17
	F	1	2	1	0	1	0	0	0	0	0	1	6
2000	M	0	7	10	3	4	0	2	1	0	0	1	28
	F	0	1	2	2	2	0	2	1	1	0	1	12
2001	M	0	3	3	4	5	6	1	3	0	1	1	27
	F	0	3	2	2	0	5	0	0	0	0	1	13
2002	M	2	2	3	7	1	1	5	3	2	0	1	27
	F	0	0	3	2	1	3	1	0	0	0	2	12
2003	M	1	2	4	4	3	1	2	2	0	1	2	22
	F	0	0	2	0	0	1	0	1	0	0	4	8

Table 5. 2000-2010 Black Bear Plan management values and criteria for Magic Valley Region DAUs, 1994-present.

DAU/Year	N ^a	% Females ^b	% Males ≥5	# Males ≥5
4A				
1994	30	37	26	5
1995	18	17	8	1
1996	13	38	38	3
1997	27	37	22	3
1998	27	37	44	4
1999	23	26	25	8
2000	40	30	14	4
2001	42	33	44	13
2002	40	30	44	12
2003	30	27	36	8
3-year average	37	30	42	11
Desired levels		30-40	25-35	

^a Number of black bears that were aged (excluding unknown). Sample sizes typically have been too small to make reliable inferences from the data about population trends.

^b Number of black bears that were sexed (excluding unknown).

Table 6. Method of black bear harvest for Magic Valley Region DAUs, 1994-present.

DAU/Year	Bait	Hounds	Still	Incidental	Other	Total
4A						
1994	6	8	6	9	1	30
1995	6	2	5	5	0	18
1996	2	4	6	1	0	13
1997	6	3	10	8	1	28
1998	1	7	6	10	1	25
1999	6	4	7	5	0	22
2000	3	15	11	12	1	42
2001	6	12	6	13	5	42
2002	4	13	5	13	1	36
2003	15	11	4	3	1	34

Table 7. Weapon type used to harvest black bear for Magic Valley Region DAUs, 1994-present.

DAU/Year	Rifle	Archery	Muzzleloader	Handgun	Other	Total
4A						
1994	22	8	0	0	0	30
1995	15	1	0	2	0	18
1996	12	1	0	0	0	13
1997	24	3	0	0	1	28
1998	20	2	0	2	1	25
1999	20	1	0	1	0	22
2000	33	5	1	2	1	42
2001	30	5	2	0	4	41
2002	27	8	0	1	0	36
2003	26	1	1	1	1	30

Table 8. Black bear depredation and nuisance complaints for Magic Valley Region DAUs, 1994-present.

DAU	Year	Depredation ^a	Nuisance	Total
4A	1994	1	9	10
	1995	1	4	5
	1996	0	1	1
	1997	2	3	5
	1998	3	5	8
	1999	1	8	9
	2000	4	6	10
	2001	5	3	8
	2002	2	11	13
	2003	0	4	4

^a Number of black bears killed by Wildlife Services for depredations on livestock.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Black Bear Surveys and</u>
PROJECT:	<u>W-170-R-28</u>		<u>Inventories</u>
SUBPROJECT:	<u>6</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>9</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2003 to June 30, 2004</u>		

UPPER SNAKE REGION

Abstract

Black bear harvest has increased markedly in recent years in all three Upper Snake/Southeast Region DAUs. In 2002, total black bear harvest was the highest ever recorded since the implementation of the present DAU framework in DAUs 4B, 4C, and 4D. A total of 198 black bears were harvested which was an increase of 56% over the 1999-2001 average of 127. Reasons for this increase are not well understood, but they may be the result of drier-than-normal weather conditions, increased popularity of bear hunting, or the liberalized hunting season framework brought on by public perceptions of high predator populations and their potential negative impacts on deer and elk numbers. In 2003, harvest dropped back to a total of 165 bears, similar to the 2000-2002 average of 164, but still above the 1999-2001 average of 127.

The 2000-2010 Black Bear Management Plan sets management objectives for DAUs 4B, 4C, and 4D to maintain harvest levels consistent with the “moderate” harvest targets of 25-35% male bear ≥ 5 years old and 30-40% females in the total harvest calculated on a three-year running average. These criteria apply to DAUs with an average annual harvest of ≥ 30 known aged black bears. DAUs 4B, 4C, and 4D have three-year average annual harvests of 40, 50, and 83 black bears, respectively, for the 2001-2003 period. DAU 4B was barely within the female criteria and above the male criteria, suggesting harvest was within the desired level but close to being above desired on females. DAU 4C harvest falls below the percent female criteria and within the male criteria, indicating a light harvest. DAU 4D was below the percent female criteria and below the male criteria, suggesting harvest was above the desired level. Three-year average values (2001-2003) for DAUs 4B, 4C, and 4D were 36, 35, and 24, respectively, for percent males ≥ 5 years old. Three-year average values for percent females in the harvest were 38, 26, and 44 for DAUs 4B, 4C, and 4D, respectively.

AREA FOUR

DAU 4B (GMUs 50, 51, 58, 59, 59A)

Abstract

In the past, harvest data has been highly variable and unreliable for this DAU. Harvest was also too low (<30 black bears) to meet criteria specified in the Black Bear Management Plan. Only 15 black bears were harvested in 1999 and the three-year average for 1998-2000 was 27. Harvest has stabilized recently and the three-year average for 2001-2003 was 40 bears. In 2003, 35 black bears were reported harvested.

Management Direction

The 2000-2010 Black Bear Management Plan sets management objectives for DAU 4B to maintain harvest levels consistent with the “moderate” harvest targets of 25-35% male bears ≥ 5 years old and 30-40% females in the total harvest, calculated on a three-year running average.

Background

DAU 4B contains relatively dry black bear habitats where timber stands are generally distributed on moister north and east aspects. These habitats are marginal for black bear because they grow few berry-producing shrubs. Black bear populations are vulnerable to over-harvest because the limited habitat is often isolated from adjacent black bear habitat. The livestock industry is a major user of DAU 4B.

Spring and summer weather conditions during 2003 were warmer and drier than normal. Winter precipitation was below normal while temperatures were near the 30-year average.

Population Surveys

A bait station survey was conducted in Units 50, 51, 58, 59, and 59A in July/August 2003 (Table 1). Twenty transects were set up on secondary roads or trails. A pork-fat bait with anis-oil scent were wired to a tree every mile and greater than 100 yards off the transect. Unit 50 had seven routes with 35 stations, Unit 51 had four routes with 20 stations, Unit 58 had three routes with 15 stations, Unit 59 had three routes with 15 stations, and Unit 59A had three routes with 15 stations. Bait stations were set out for 20 days before being checked. A total of nine baits were visited by bears; one in Unit 50, one in Unit 51, five in Unit 58, one in Unit 59, and one in Unit 59A.

Harvest Characteristics

Thirty-five black bears were checked from DAU 4B in 2003 (Table 2). This was below the current three-year average for 2001-2003 of 40. Age was determined for all 35 black bears harvested in 2003 (Table 3).

While harvest management criteria did not technically apply in this DAU in the past due to low average annual harvest, levels have surpassed the minimum of 30 bears. Harvest data and plan criteria are presented in Table 4. The 2000-2010 Black Bear Management Plan sets harvest objectives for DAU 4B to maintain harvest levels consistent with the “moderate” harvest targets of 25-35% of male bears ≥ 5 years old and 30-40% of the total harvest being female. Values for the 2001-2003 period were barely within the desired level for percent of the total harvest being female (38%) and just within the male harvest criteria (27% ≥ 5 years old).

Bait and hound hunters have historically accounted for the majority of the harvest for this DAU, but incidental harvest is increasing (Table 5). This trend continued in 2003 as 13 (37%) black bears were harvested over bait and seven (20%) were taken by hound hunters, based on the 35 black bears for which method of harvest was known. Incidental harvest decreased from 13 (28%) in 2002 to nine (26%) in 2003. Rifle is the most popular weapon for hunting in this DAU followed by archery (Table 6).

Depredations and Nuisance

No black bear nuisance or depredation complaints were received during this reporting period (Table 7).

Dog-training Seasons

The 2003 dog-training season ran from June 16 - July 31 in DAU 4B (Table 8).

Management Implications

Current management criteria specified in the 2000-2010 Black Bear Management Plan have been in effect for four years. DAU 4B is to be managed to maintain harvest in the “moderate” range. Values for the 2001-2003 period were barely within the desired level for percent of the total harvest being female and just within the male harvest criteria, suggesting harvest was close to being above the desired level.

DAU 4C (GMUs 60, 61, 62, 62A)

Abstract

DAU 4C historically had a low (<30) average annual black bear harvest. Consequently, harvest criteria have not technically applied to this DAU. However, harvest over the last seven years has exceeded 30 bears. Harvest objectives for DAU 4C have been set to maintain harvest levels consistent with the “moderate” level of harvest. Harvest over the last three years falls below this level for percent females and falls within the desired level for percent males ≥ 5 years-of-age, indicating a light harvest level.

Management Direction

The 2000-2010 Black Bear Management Plan set management objectives for DAU 4C to maintain harvest levels consistent with the “moderate” harvest targets of 25-35% males ≥ 5 years old and 30-40% females in the total harvest, calculated on a three-year running average. DAU 4C includes part of the Greater Yellowstone Ecosystem, which supports a grizzly bear population. This DAU is managed to protect that threatened population by prohibiting bait and use of hounds to hunt black bear within the grizzly bear recovery area.

Background

DAU 4C contains a mixture of relatively dry black bear habitats where timber stands are generally distributed on moister north and east aspects and moist caldera-type habitat. The drier habitats are marginal for black bear because they grow few berry-producing shrubs, but the moist caldera habitats produce a variety of berry producing shrubs and represent the best black bear habitat in the Region. The livestock industry is a major user of DAU 4C.

Spring and summer weather conditions during 2003 were warmer and drier than normal. Winter precipitation was below normal while temperatures were near the 30-year average.

Population Surveys

A bait station survey was conducted in parts of Units 61 and 62A in 2002 (Table 1). Two partially-opened sardine cans were wired to a tree every mile along the transect (secondary road or trail). Four transects were set up: one 9.3 miles in length with nine bait stations in the Targhee Creek/Dry Creek area, one 32 miles in length with 32 bait stations along Fish Creek Road, one 9 miles in length with ten bait stations in Black Canyon, and one 7 miles in length with eight bait stations in the Two Top area. Bait stations were set out July 9 and rechecked July 17. A total of five baits were visited by bears; one on the Targhee Creek/Dry Creek transect, two on the Fish Creek Road transect, and one each on the Black Canyon and Two Top transects. Of the five visitations observed, one contained a single hair sample consistent with black bear, but the other four had no evidence to identify what visited the bait.

Harvest Characteristics

The Black Bear Management Plan states that when average annual harvest is less than 30 black bears, the black bear management criteria do not apply, and management decisions will be based on professional judgment of Department biologists. Historically, a relatively small number of black bears (<30) were checked from this DAU annually. However, the most recent three-year average of 60 bears from DAU 4C exceeds the ≥ 30 -bear criteria (Table 2). Therefore, the management criteria in the plan can be used to direct bear management in this DAU.

Males have dominated harvest from this DAU with spring and fall black bear harvest relatively equally split historically (Table 2). Recently, fall harvest has greatly exceeded spring harvest. Age distribution of black bear checked from DAU 4C is presented in Table 3.

The 2000-2010 Black Bear Management Plan sets harvest objectives for DAU 4C to maintain harvest levels consistent with the “moderate” harvest targets. Values for the 2001-2003 period are within the target for males ≥ 5 years old (35%) but below the percentage of the desired level of percent females (26%), indicating a light harvest (Table 4).

Stalking and incidental hunting dominate the method of take from this DAU (Table 5). This is most likely due to the restrictions on use of bait and hounds to protect grizzly bear for much of the DAU. Rifle is the most popular weapon for hunting in this DAU followed by archery (Table 6).

Depredations and Nuisance

No black bear nuisance complaints were received during this reporting period. One depredation complaint from Clark County in Unit 61 involving the loss of ten sheep/lambs was received by Wildlife Services during this reporting period (Table 7). They verified the loss of five sheep was caused by black bear.

Dog-training Season

The 2003 dog-training season ran from June 16 - July 31 (Table 8) in the small portion of DAU 4C open to dog-training (that portion of Unit 61 west of Howard Creek in Clark County).

Management Implications

The objectives for DAU 4C are to maintain “moderate” harvest levels. Values for the 2001-2003 period are within the target for males ≥ 5 years old but below the percentage of the desired level of percent females, indicating a light harvest. This population is possibly more lightly harvested than the other DAUs in the region because of restrictions placed on baiting and hound hunting to protect grizzly bear in most of the DAU. In an effort to bring DAU 4C into the desired levels for percent female and percent males ≥ 5 years old in the harvest and to provide more hunting opportunity, the Fish and Game Commission extended the spring 2003 take season 15 days from previous years. This should provide for a heavier harvest of this DAU in future years.

DAU 4D (GMUs 64, 65, 66, 66A, 67, 69, 76)

Abstract

Black bear harvest has increased markedly in DAU 4D in recent years. A total of 90 black bears were harvested in 2003. This represents an increase of 25% over the 2000-2002 average annual harvest of 72 bears and an increase of 50% over the 1999-2001 average of 60 bears. Reasons for this increase are not well understood. Recent harvest data indicates that this population is being harvested above the target “moderate” level of harvest management criteria in the 2000-2010 Black Bear Management Plan.

Management Direction

The 2000-2010 Black Bear Management Plan set management objectives for DAU 4D to maintain harvest levels consistent with the “moderate” harvest targets of 25-35% males ≥ 5 years old and 30-40% females in the total harvest, calculated on a three-year running average.

Background

DAU 4D contains relatively dry black bear habitats where timber stands are generally distributed on moister north and east aspects. Chokecherry and hawthorn are distributed along some of the streams, and huckleberry occurs in some areas throughout the DAU. These habitats are marginal for black bear because berry-producing shrubs are limited to isolated locations within the DAU. Black bear populations are vulnerable to over-harvest because the limited habitat is often isolated from adjacent black bear habitat. The livestock industry is a major user of DAU 4D.

Spring and summer weather conditions during 2003 were warmer and drier than normal. Winter precipitation was below normal while temperatures were near the 30-year average.

Population Surveys

A bait station survey was conducted in Units 64, 65, 66, 66A, 67, 69, and 76 in July/August 2004 (Table 1). Twenty transects were set up on secondary roads or trails. A pork-fat bait with anis-oil scent were wired to a tree every mile and greater than 100 yards off the transect. Unit 64 had one route with five stations, Unit 65 had one route with five stations, Unit 67 had five routes with 25 stations, Unit 66 had five routes with 25 stations, and Units 66A and 76 had eight routes with 40 stations. Bait stations were set out for 20 days before being checked. Zero baits were visited by bears.

Harvest Characteristics

A total of 90 black bears were checked from DAU 4D in 2003 (Table 2). This represents the historical high for this DAU and is the sixth time in the past seven years that a new historical high has been established or tied. Those seven years also represent the only times that ≥ 30 black bears have been harvested in this DAU in the past ten-year period. The average annual harvest for the 2001-2003 period is 83. Age distribution of black bears checked from DAU 4D is shown in Table 3. Most of the bears harvested fall in the one-to-three-year-old age category.

The 2000-2010 Black Bear Management Plan sets harvest objectives for DAU 4D to maintain harvest levels consistent with the “moderate” harvest targets. Values for the 2001-2003 period were 24% of male harvest ≥ 5 years old and 44% of the harvest female (Table 4).

A large percentage of the black bears harvested in this DAU are taken in the spring (Table 2) and in association with baiting (Table 5). Forty-eight percent of the black bears harvested in this DAU were taken with a rifle (Table 6).

Depredations and Nuisance

Five depredation complaints were received in DAU 4D for 2003 (Table 7). In Unit 67, a sheep depredation involving the loss of ten sheep/lambs was received by Wildlife Services. They verified the loss of five sheep was caused by black bear and four others were possible. One black bear was dispatched. In Unit 65, a sheep depredation involving the loss of five sheep/lambs was received by Wildlife Services. They could not verify the loss was caused by black bear. In Unit 66, a sheep depredation involving the loss of six sheep/lambs was received by Wildlife Services. They verified the loss of six sheep was caused by black bear. In Unit 66A, a sheep depredation involving the loss of 71 sheep/lambs was received by Wildlife Services. They verified the loss of 12 sheep was caused by black bear. In Unit 76, a sheep depredation involving the loss of five sheep/lambs was received by Wildlife Services. They verified the loss of four sheep was caused by black bear. No nuisance black bear reports were received during this reporting period.

Dog-training Season

The 2003 dog-training season ran from June 16 - July 31 in DAU 4D (Table 8).

Management Implications

Black bear harvest has increased markedly in this DAU in recent years. The 90 black bears harvested in 2003 represents a historical high for DAU 4D and is the sixth time in seven years that a new high harvest has been established. Reasons for this increased harvest are not well understood, but they may be the result of drier-than-normal conditions over the past few years or a more liberalized hunting season framework brought on by public perceptions of high predator populations and their potential negative impacts on deer and elk numbers.

Management criteria in the 2000-2010 Black Bear Management Plan indicate that this population is presently harvested higher than the targeted “moderate” range for this DAU.

AREA FIVE

GMUs 60A, 63, 63A

Management Direction

The Department has not offered an open season in Area Five because black bear numbers are low and too sparse to justify a hunting season.

Background

Area Five units are irrigated farmland and drier, desert-like areas. Habitat quality is marginal and few black bears occur in Area Five.

Area Five units have historically had no black bear hunting seasons.

Population Surveys

No population surveys are conducted in Area Five.

Depredations and Nuisance

No black bear nuisance or depredation complaints were received during this reporting period.

Management Implications

The Department will not likely offer an open season in Area Five during the 2000-2010 planning period.

Table 1. Bait station survey results for the Upper Snake and Southeast Regions, 1992-present.

Units surveyed	Year	Survey dates	Total transects available	Total transects sampled	Total stations sampled	Total stations visited by black bear	% stations visited by black bear
66A, 76	1992	6/24-7/11	16	16	94	0	0.0
	1993	6/24-7/1	18	18	107	1	0.9
	2004 ^a	7/16-8/12	8	8	40	0	0.0
66, 66A, 67, 76	1999	6/24-29	23	23	138	0	0.0
64, 65, 66, 67	2004 ^a	7/16-8/12	12	12	60	0	0.0
61, 62A	2002 ^b	7/9-17	4	4	60	5	8.3
50, 51, 58, 59, 59A	2003 ^a	7/2-8/17	20	20	100	9	9.0

^a All transects were five miles in length with five bait stations per transect at one-mile intervals along transects.

^b Transects ranged in length from seven to 32 miles with bait stations at one-mile intervals along transects.

Table 2. Black bear harvest by season and sex for Upper Snake Region DAUs, 1994-present.

DAU/Year	Spring				Fall				Entire Season			
	M	F	U	Total	M	F	U	Total	M	F	U	Total
4B												
1994	10	6	0	16	5	4	0	9	15	10	0	25
1995	8	6	0	14	3	1	0	4	11	7	0	18
1996	18	4	0	22	3	3	0	6	21	7	0	28
1997	13	7	0	20	4	3	0	7	17	10	0	27
1998	12	9	0	21	3	4	0	7	15	13	0	28
1999	5	2	0	7	7	1	0	8	12	3	0	15
2000	12	14	0	26	8	4	0	12	20	18	0	38
2001	18	12	0	30	4	5	0	9	22	17	0	39
2002	17	11	0	28	12	7	0	19	29	18	0	47
2003	16	6	0	22	8	5	0	13	24	11	0	35
3 yr. avg.	17	10	0	27	8	6	0	14	25	15	0	40
4C												
1994	6	3	0	9	12	5	0	17	18	8	0	26
1995	8	7	0	15	10	4	0	14	18	11	0	29
1996	12	2	0	14	7	8	0	15	19	10	0	29
1997	12	1	0	13	6	4	0	10	18	5	0	23
1998	4	1	0	5	6	3	0	9	10	4	0	14
1999	14	3	0	17	10	5	0	15	24	8	0	32
2000	8	6	0	14	19	5	0	24	27	11	0	38
2001	13	3	0	16	18	6	1	25	31	9	1	41
2002	12	11	0	23	40	7	0	47	52	18	0	70
2003	11	6	0	17	14	9	0	23	25	15	0	40
3 yr. avg.	12	7	0	19	24	7	0	31	36	14	0	50
4D												
1994	10	3	0	13	5	6	0	11	15	9	0	24
1995	5	3	0	8	7	2	0	9	12	5	0	17
1996	13	4	0	17	5	7	0	12	18	11	0	29
1997	18	5	0	23	9	6	0	15	27	11	0	38
1998	20	5	0	25	5	3	1	9	25	8	1	34
1999	18	4	0	22	11	11	0	22	29	15	0	44
2000	25	15	0	40	10	6	0	16	35	21	0	56
2001	26	19	0	45	20	14	0	34	46	33	0	79
2002	27	18	0	45	21	15	0	36	48	33	0	81
2003	29	23	0	52	18	20	0	38	47	43	0	90
3 yr. avg.	27	20	0	47	20	16	0	36	47	36	0	83

Table 3. Age distribution of black bear for Upper Snake Region DAUs, 1994-present.

DAU/ Year	Sex	Age											Unknown	Total
		Cub	1	2	3	4	5	6	7	8	9	10+		
4B														
1994	M	0	2	1	2	5	1	3	0	0	0	0	1	15
	F	0	0	1	1	4	2	0	0	0	0	1	1	10
1995	M	0	3	1	1	2	3	0	0	0	0	1	0	11
	F	0	0	1	1	0	2	0	0	0	1	2	0	7
1996	M	0	3	1	4	5	2	1	1	0	1	2	1	21
	F	1	0	1	1	0	2	0	0	0	1	1	0	7
1997	M	1	2	4	3	3	0	1	2	1	0	0	0	17
	F	0	0	2	2	1	1	1	0	1	1	1	0	10
1998	M	3	1	4	2	1	0	3	0	0	0	1	0	15
	F	4	1	2	2	1	0	0	0	0	0	3	0	13
1999	M	1	1	1	5	1	0	0	1	0	0	1	0	11
	F	0	0	1	0	1	0	1	0	0	0	0	0	3
2000	M	0	4	6	5	2	1	0	0	2	0	0	2	22
	F	0	0	0	6	1	1	0	0	2	1	4	1	16
2001	M	0	3	5	3	3	1	1	4	1	1	0	0	22
	F	0	0	2	1	3	3	1	1	0	0	3	3	17
2002	M	0	4	5	5	4	4	3	0	1	0	3	0	29
	F	0	0	2	5	3	1	0	0	2	0	5	0	18
2003	M	0	0	1	3	6	6	4	1	1	0	0	0	22
	F	0	2	0	1	4	0	0	1	0	0	2	1	11
4C														
1994	M	1	6	1	3	2	1	1	1	0	1	0	1	18
	F	0	1	1	1	1	2	0	0	0	0	2	0	8
1995	M	0	4	1	3	2	2	1	0	0	0	2	3	18
	F	0	0	1	3	1	0	1	1	1	0	2	1	11
1996	M	0	3	3	3	1	3	1	1	0	1	1	1	18
	F	0	2	1	2	1	0	0	0	0	0	3	0	9
1997	M	0	1	2	3	6	3	2	1	0	1	1	1	21
	F	0	0	0	1	2	0	0	0	1	0	1	0	5
1998	M	2	1	0	1	1	1	2	0	0	1	1	0	10
	F	0	0	0	0	2	0	1	0	0	0	1	0	4
1999	M	0	6	1	3	3	3	2	3	1	1	1	0	24
	F	0	3	0	1	1	1	1	0	0	0	1	0	8
2000	M	0	3	6	6	2	2	3	0	1	2	1	1	27
	F	0	2	2	2	0	1	2	0	1	0	1	0	11
2001	M	0	6	4	5	2	2	2	3	2	1	3	2	32
	F	0	1	3	^a 2	1	0	1	0	0	1	0	0	9
2002	M	0	7	12	15	4	3	2	0	1	2	5	1	52
	F	0	0	1	1	2	3	2	1	0	2	5	1	18
2003	M	0	4	3	5	2	3	0	3	0	0	4	1	25
	F	0	3	3	1	2	2	0	0	0	1	3	0	15

Table 3. Continued.

DAU/ Year	Sex	Age											Unknown	Total
		Cub	1	2	3	4	5	6	7	8	9	10+		
4D														
1994	M	0	3	5	5	2	0	0	0	0	0	0	0	15
	F	1	0	2	3	1	1	0	1	0	0	0	9	
1995	M	0	0	2	5	0	1	1	0	0	1	0	12	
	F	0	0	2	2	0	0	0	1	0	0	0	5	
1996	M	0	0	7	3	2	2	2	0	0	1	1	18	
	F	1	3	1	2	1	1	0	0	0	1	0	10	
1997	M	1	2	8	3	4	3	3	1	0	0	1	27	
	F	0	1	0	3	3	0	2	1	0	0	1	11	
1998	M	3	3	6	3	3	3	0	3	0	0	1	25	
	F	1	0	2	1	1	0	1	1	0	1	0	8	
1999	M	2	6	5	6	2	1	3	1	0	1	1	29	
	F	2	3	4	0	1	1	1	1	0	0	1	15	
2000	M	0	6	9	5	5	3	1	3	0	1	2	35	
	F	0	1	3	4	1	1	1	0	3	1	4	21	
2001	M	0	8	6	14	9	3	3	1	0	0	2	46	
	F	0	2	8	5	2	2	2	1	5	1	2	33	
2002	M	0	2	15	12	5	7	2	1	0	1	2	48	
	F	2	2	7	5	7	3	2	0	0	0	3	33	
2003	M	0	10	9	15	1	4	0	2	0	0	5	47	
	F	1	5	9	9	4	1	6	0	2	0	6	43	

^a One bear of unknown sex.

Table 4. 2000-2010 Black Bear Plan management values and criteria for Upper Snake Region DAUs, 1994-present.

DAU/Year	N ^a	% Females ^b	% Males ≥5	# Males ≥5
4B				
1994	23	39	29	4
1995	17	41	36	4
1996	27	26	35	7
1997	27	37	24	4
1998	28	46	27	4
1999	14	21	18	2
2000	35	43	15	3
2001	34	35	36	8
2002	47	38	24	7
2003	35	31	33	8
3-year avg.	39	38	36	8
Desired levels		30-40	25-35	
4C				
1994	25	32	24	4
1995	25	40	33	5
1996	26	35	41	7
1997	22	23	47	8
1998	14	29	50	5
1999	32	25	46	11
2000	37	30	35	9
2001	40	20	41	13
2002	70	26	20	10
2003	70	26	42	14
3-year avg.	60	26	35	12
Desired levels		30-40	25-35	
4D				
1994	26	35	0	0
1995	15	33	30	3
1996	27	41	35	6
1997	37	30	31	8
1998	33	24	28	7
1999	42	33	25	7
2000	53	36	29	10
2001	76	39	20	9
2002	81	41	13	6
2003	90	48	24	11
3-year avg.	82	44	24	9
Desired levels		30-40	25-35	

^a Number of black bears that were aged (excluding unknown).

^b Number of black bears that were sexed (excluding unknown).

Table 5. Method of black bear harvest for Upper Snake Region DAUs, 1994-present.

DAU/Year	Bait	Hounds	Still	Incidental	Other	Total
4B						
1994	5	11	3	6	0	25
1995	6	8	2	2	0	18
1996	9	14	3	2	0	28
1997	12	8	2	5	0	27
1998	10	8	4	4	0	26
1999	4	4	2	5	0	15
2000	17	9	7	3	0	36
2001	15	10	5	9	0	39
2002	16	10	6	13	2	47
2003	13	7	5	9	1	35
4C						
1994	6	2	11	6	1	26
1995	10	3	8	7	1	29
1996	7	1	13	7	1	29
1997	6	2	12	2	0	22
1998	1	1	4	8	0	14
1999	8	1	7	14	2	32
2000	6	1	21	9	1 ^a	38
2001	9	1	17	14	0	41
2002	11	14	21	24	0	70
2003	9	3	11	15	2	40
4D						
1994	10	1	5	8	0	24
1995	8	0	4	5	0	17
1996	13	7	3	5	1	29
1997	25	5	3	4	1	38
1998	12	11	1	7	2	33
1999	19	8	5	12	0	44
2000	30	11	7	5	3	56
2001	38	14	18	6	3 ^b	79
2002	31	24	6	15	5	81
2003	35	30	16	8	1	90

^a Method of harvest not reported for one black bear.

^b Method of harvest not reported for two black bears.

Table 6. Weapon type used to harvest black bear for Upper Snake Region DAUs, 1994-present.

DAU/Year	Rifle	Archery	Muzzleloader	Handgun	Other	Total
4B						
1994	14	9	1	1	0	25
1995	12	2	0	3	1	18
1996	15	6	1	6	0	28
1997	11	13	0	3	0	27
1998	15	7	0	4	0	26
1999	11	1	1	2	0	15
2000	26	6	2	1	1	36
2001	26	10	0	3	0	39
2002	25	17	0	5	0	47
2003	22	7	1	4	1	35
4C						
1994	18	5	0	3	0	26
1995	21	4	0	4	0	29
1996	21	6	1	1	0	29
1997	16	5	0	1	0	22
1998	9	4	0	1	0	14
1999	24	7	0	1	0	32
2000	27	9	0	2	0	38
2001	29	11	0	1	0	41
2002	46	17	0	7	0	70
2003	28	6	1	5	0	40
4D						
1994	15	7	0	2	0	24
1995	13	4	0	0	0	17
1996	16	10	0	3	0	29
1997	21	7	0	9	1	38
1998	21	6	1	4	1	33
1999	26	13	0	5	0	44
2000	31	20	1	3	1	56
2001	40	25	1	11	2 ^a	79
2002	40	19	20	2	0	81
2003	43	37	0	9	1	90

^a One bear taken with unknown weapon.

Table 7. Black bear depredation and nuisance complaints for Upper Snake Region DAUs, 1994-present.

Year	4B		4C		4D		Total	
	Dep.	Nuis.	Dep.	Nuis.	Dep.	Nuis.	Dep.	Nuis.
1994 ^a	0	-	10	-	15	-	25	-
1995 ^a	1	-	11	-	9	-	21	-
1996	0	2	0	11	0	1	0	14
1997	0	0	2	6	4	0	6	6
1998	0	0	0	2	1	0	1	2
1999	1	0	1	0	1	0	3	0
2000	0	2	0	0	0	0	0	2
2001	2	1	3	0	3	1	8	2
2002	2	0	2	0	4	0	8	0
2003	0	0	1	0	5	0	6	0

^a Depredation and nuisance complaints combined.

Table 8. Summary of 2003 seasons by method for Upper Snake Region DAUs.

DAU	Units	Season Type ^a	Season	
			Dates	Length (Days)
4B	50, 51, 58, 59, 59A	General fall, any legal weapon	Aug 30 - Oct 31	63
		General spring, any legal weapon	Apr 15 - Jun 15	62
		Pursuit	Jun 16 - Jul 31	46
4C	60, 61, 62, 62A	General fall, any legal weapon ^b	Aug 30 - Oct 31	63
		General spring, any legal weapon ^b	Apr 15 - Jun 30	76
		Pursuit ^c	Jun 16 - Jul 31	46
4D	64, 65, 66, 66A, 67, 69, 76	General fall, any legal weapon	Aug 30 - Oct 31	63
		General spring, any legal weapon	Apr 15 - Jun 15	62
		Pursuit	Jun 16 - Jul 31	46

^a Any black bear is legal except female black bear accompanied by young.

^b Dogs and bait prohibited in that portion of Unit 61 east of Howard Creek in Clark County and in all of Units 60, 62, and 62A.

^c Only that portion of Unit 61 west of Howard Creek in Clark County.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Black Bear Surveys and</u>
PROJECT:	<u>W-170-R-28</u>		<u>Inventories</u>
SUBPROJECT:	<u>7</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>9</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2003 to June 30, 2004</u>		

SALMON REGION

Abstract

The Salmon Region is responsible for DAUs 1I, 1J, and 4E. In these DAUs, black bear depredation problems and hunter harvest tend to peak during dry years. Conversely, depredations and harvest are minimal during wet years. For example, in 1994, a dry year, depredation complaints reached an all-time high of 64 complaints and 171 black bears were harvested. In the wet years of 1997 and 1998, there were few depredation problems and approximately 100 black bears were harvested. However, 1999 was also a relatively dry year, but only 100 black bears were harvested. Although the 2000-2010 Black Bear Management Plan specifies moderate to heavy harvest rates in these DAUs, management criteria indicate light harvest rates throughout the Region. Accordingly, starting in fall 1999, additional days of hunting opportunity were added to spring and fall seasons in these DAUs. Harvest increased, likely in part due to regulation changes. During 2001, 2002, and 2003, 198, 248, (largest harvest since 1983), and 161 bears were harvested, respectively. Spring harvest in 2003 declined 11%, whereas fall harvest was 63% below 2002 levels. Approximately 21% of harvest (42/yr.) occurred during extended seasons over the last four years. Bait and hound hunters continued to be slightly more selective in the sex of animals they took in 2003 (approximately 31% females) compared with still and incidental hunters (approximately 42% females).

AREA ONE

DAU 1I (GMUs 34, 35, 36)

Management Direction

Follow statewide management direction of the 2000-2010 Black Bear Management Plan. Management direction for DAU 1I is to maintain a heavy harvest rate; <25% males ≥5 years old and >40% females in the harvest (Table 1).

Background

DAU 1I is bordered by the Frank Church Wilderness on the north and includes part of the Sawtooth Wilderness in the south. Virtually all of DAU 1I is land administered by the USFS, with small amounts of private land in valley bottoms. The area is covered with high-elevation forest with the exception of open valley bottoms in Unit 36. The area receives high recreational use throughout the year. Black bear season structure is currently the same as in other DAUs in the Region (Table 2).

This area typically receives high snowfall and endures cold winter temperatures. Rainfall during summer months in 2003 was below average, with warm, dry weather during early summer. Vegetative growth generally appeared well below average. Winter conditions were generally mild with temperatures above normal and snow accumulation at lower elevations below average. Animals, therefore, likely entered winter in average to below average body condition, then encountered a mild to average winter, which should have produced average over-winter survival. Snow pack (as measured at higher elevations) was approximately 70% of average by late winter. Onset of spring weather and associated plant phenology was apparently advanced by approximately 3-4 weeks. Water-year precipitation to date has been near average.

Population Surveys

No population surveys or management studies were completed in this DAU.

Harvest Characteristics

Harvest in 2003 declined slightly (-16%) from 2002 and was somewhat below the three-year average (Table 3). Conditions were somewhat dry through late October; dry fall seasons generally make females and young black bears much more vulnerable than under more moist conditions. Sex and age composition of harvest in DAU 1I indicates a much lighter harvest rate than specified in the 2000-2010 management plan (Table 4). The percent of males ≥ 5 years old moved closer to goal level in 2000 and 2001, but moved away from goal level during the last two years (Table 5). Use of bait to harvest bears decreased from 2000 through 2003, but use of bait still accounts for >40% of black bears harvested in this DAU (Table 6). Approximately 45% of bears are taken by still hunters and incidentally to other hunting. Use of rifles (65%) to harvest bears fell below 70% for the first time (Table 7).

Depredations

Depredations in this DAU usually accounted for the majority of black bear problems in the Salmon Region prior to 1994 (Table 8). Complaints were chronic problems with garbage in the same locations each year. The USFS provided black bear-proof trash containers for the 1994 season in Stanley area campgrounds, which helped alleviate some problems. Since then, depredation complaints have decreased. There were no depredation complaints during the reporting period.

Management Implications

Management direction for this area is to maintain a heavy harvest rate (<25% males \geq 5 years old and >40% females in the harvest). Harvest indicator criteria for this DAU suggested a light harvest rate during the 1990s. Accordingly, the spring 2000 black bear season ending date was extended from June 7 to June 30, creating an additional 24 days to hunt black bears. In addition, the fall 1999 season in Unit 36 opened August 30, 16 days earlier than in prior years. Harvest during extended seasons increased from 18% of total harvest in 2000 to 43% in 2003.

DAU 1J (GMUs 21, 21A, 28, 36B)

Management Direction

Follow statewide management direction of the 2000-2010 Black Bear Management Plan. Management direction for DAU 1J is to maintain a moderate harvest rate; 25-35% males \geq 5 years old and 30-40% females in the harvest (Table 1).

Background

DAU 1J consists of black bear habitat that varies from dense, semi-coastal forests to dry river breaks with patchy timber stands. Much of this DAU is heavily roaded, which makes black bear populations vulnerable to over-harvest.

Units in DAU 1J contain some of the best black bear habitat in the Salmon Region. However, hunter access is good over much of this DAU, so black bear harvest rates are comparatively high. Annual harvests vary considerably due to weather fluctuations; snow melt patterns in spring and summer drought can concentrate black bears along accessible riparian areas in fall. Black bear season structure mirrors the rest of the Region (Table 2).

Most of DAU 1J is public land, primarily USFS, with some BLM and Idaho State lands. Private property in these units is primarily associated with valley bottoms or patented mining claims.

Population Surveys

In July 2003, the Salmon Region implemented black bear bait station transects per statewide direction to obtain an independent estimate of population trend. Transects consisted of five stations located approximately 1.6 km apart and situated along established roads and trails. Bait included fresh pork fat and anise oil attached to smooth-bark trees 2-2.5 m above the ground. Baits were placed July 7-9 and retrieved 20 days later. Of 120 stations (24 transects), 107 were revisited according to protocol; 13 stations could not be reached because of area closures related to wildfires. Bears visited 30 of 107 stations (28%). According to estimates by Rice et al. (2001), the visitation rate we observed was adequate to detect a 50% change in bear population over a five-year period with a confidence level of 90%. Therefore, current sample size renders this method inadequate for monitoring bear population trend at the DAU level. Approximately 380 additional stations would be required to increase power to detect a 25% change in population

over five years with 90% confidence. Bait station data from 2003 should only be evaluated in combination with data from across the state.

Harvest Characteristics

During the wet years of 1996-1998, DAU 1J black bear harvest was 53-55 per year, compared to 66-82 per year during the dry 1993-1995 years (Table 3). Typical of dry years, black bear harvest increased dramatically in DAU 1J during 2000 and 2001 (103 and 102), reaching the highest levels since 1983. A dry weather pattern prevailed in 2002 and harvest reached a new high with 132 bears taken. However, harvest rates since 2000 were confounded by increased hunting opportunity and associated harvest beginning with the 1999 fall season. Harvest in 2003 decreased to 73 animals despite dry conditions. The vast majority of the reduction in harvest was attributed to the fall season, in which almost 80% fewer bears were taken.

Male age composition of DAU 1J black bear harvest indicates a lighter harvest rate than specified in the 2000-2010 management plan (Table 4); however, percent females in the harvest met goal level during the last two seasons (Table 5). Over the last ten years, harvest by hunters using bait and hounds averaged 28% females compared to still hunter and incidental harvest of 35% females (Table 6). In most years, 80-85% of black bears are taken with a rifle (Table 7).

Depredations

Black bear depredation complaints in past years were primarily related to fruit trees and garbage along the Salmon River below the North Fork. The USFS installed black bear-proof dumpsters at dump sites along the Salmon River for the 1994 camping season. The dry summer and fall produced very poor forage conditions and a dramatic increase in black bear complaints during 1994. Since 1995, complaints have fluctuated widely from 0-18 (Table 8). Despite dry conditions in 2003, only three complaints were received for this DAU.

Management Implications

Management direction for this area is to maintain a moderate harvest rate (25-35% males \geq 5 years old and 30-40% females in the harvest). Harvest indicator criteria for this DAU suggest a light harvest rate. Accordingly, fall 1999 season opened August 30, 16 days earlier than in prior years, and the spring 2000 black bear season ending date was extended from June 15 to June 30, creating a total of 31 additional days to hunt black bears. Extended season dates accounted for a consistent 16% of harvest during the last three seasons.

AREA FOUR

DAU 4E (GMUs 29, 30, 30A, 36A, 37, 37A)

Management Direction

Follow statewide management direction of the 2000-2010 Black Bear Management Plan. Management direction for DAU 4E is to maintain a moderate harvest rate, 25-35% males \geq 5 years old and 30-40% females in the harvest (Table 1).

Background

Units in DAU 4E are generally characterized by mountain valleys separated by rugged mountain ranges. Most black bear habitat occurs in scattered pockets in the mountains. Valleys are generally agricultural land and contain little suitable black bear habitat except along creeks. Black bear populations are very vulnerable to harvest because of limited, often isolated black bear habitats. Both harvest and pursuit-only seasons are currently in effect (Table 2).

Population Surveys

No population surveys or management studies were completed in this DAU.

Harvest Characteristics

Typically, 25-35 black bears are harvested in DAU 4E, ranging from 14 in 1992 to 72 in 2002 (Table 3). The 51 black bears harvested in 2003 was the second highest level since 1983, but a decrease of 29 from 2002. As in other DAUs, most of this decrease occurred during the fall season. Sex and age composition of DAU 4E black bear harvest indicates a harvest rate within or close to that specified in the 2000-2010 management plan (Table 4). Percentage of females in the harvest has been within the desired range during four of the last five years (Table 5). Male harvest age structure has generally been older than specified in the management plan. Harvest by hunters using bait and hounds is composed of a lower proportion of females (33%) compared to still or incidental hunters (51%, Table 6). In the last three years, approximately 71% of hunters used a rifle to harvest bears (Table 7).

Depredations

Except for 1994, an unusually dry year, DAU 4E experiences relatively few depredation problems (Table 8). One complaint was reported in 2003.

Management Implications

Management direction for this area is to maintain a moderate harvest rate (25-35% males \geq 5 years old and 30-40% females in the harvest). Harvest indicator criteria for this DAU suggest harvest at or near goal levels. Fall 1999 season opened August 30, 16 days earlier than in prior years, and the spring 2000 black bear season ending date was extended from June 15 to June 30,

creating a total of 31 additional days to hunt black bears. Extended season dates accounted for approximately 20% of harvest during the last three seasons.

LITERATURE CITED

Rice, C. G., J. Rohlman, J. Beecham, and S. Pozzanghera. 2001. Power analysis of bait station surveys in Idaho and Washington. *Ursus* 12:227-236.

Table 1. Harvest criteria for black bear in Idaho.

Criteria	Light harvest	Moderate harvest	Heavy harvest
Percent females	<30%	30-40%	>40%
Percent males \geq 5	>35%	25-35%	<25%
Bait station survey	Increasing	Stable	Decreasing

Table 2. Summary of 2003 seasons by method for Salmon Region DAUs.

DAU	Units	Season Type ^a	Season	
			Dates	Length (Days)
1I	34, 35, 36	General fall, any legal weapon	Aug 30 - Oct 31	63
		General spring, any legal weapon	Apr 15 - Jun 30	77
		Pursuit	Jul 1-31	31
1J	21, 21A, 28, 36B	General fall, any legal weapon	Aug 30 - Oct 31	63
		General spring, any legal weapon	Apr 15 - Jun 30	77
		Pursuit	Jul 1-31	31
4E	29, 30, 30A, 36A, 37, 37A	General fall, any legal weapon	Aug 30 - Oct 31	63
		General spring, any legal weapon	Apr 15 - Jun 30	77
		Pursuit	Jul 1-31	31

^a Bag limit includes any black bear except females accompanied by young.

Table 3. Black bear harvest by season and sex for Salmon Region DAUs, 1994-present.

DAU/Year	Spring			Fall			Entire Season		
	M	F	Total	M	F	Total	M	F	Total
1I									
1994	16	7	23	18	16	34	34	23	57
1995	9	6	15	21	9	30	30	15	45
1996	9	4	13	8	3	11	17	7	24
1997	8	4	12	7	3	10	15	7	22
1998	6	2	8	7	2	9	13	4	17
1999	17	2	19	16	4	20	33	6	39
2000	22	5	27	17	4	21	39	9	48
2001	18	10	28	14	4	18	32	14	46
2002	16	8	24	15	5	20	31	13	44
2003	16	9	25	9	3	12	25	12	37
3-yr. avg.	17	9	26	13	4	17	29	13	42
1J									
1994	26	11	37	31	14	45	57	25	82
1995	24	20	44	14	15	29	38	35	73
1996	25	8	33	18	4	22	43	12	55
1997	20	10	30	12	11	23	32	21	53
1998	27	7	34	14	5	19	41	12	53
1999	29	5	34	9	7	16	38	12	50
2000	46	14	60	30	13	43	76	27	103
2001	53	19	72	23	7	30	76	26	102
2002	44	23	67	44	21	65	88	44	132
2003	43	16	59	3	11	14	46	27	73
3-yr. avg.	47	19	66	23	13	36	70	32	102
4E									
1994	11	9	20	10	6	16	21	15	36
1995	18	6	24	6	9	15	24	15	39
1996	13	4	17	3	5	8	16	9	25
1997	17	8	25	1	3	4	18	11	29
1998	9	9	18	2	6	8	11	15	26
1999	25	9	34	0	5	5	25	14	39
2000	17	16	33	6	3	9	23	19	42
2001	27	11	38	4	5	9	31	16	47
2002	27	15	42	16	14	30	43	29	72
2003	24	10	34	11	6	17	35	16	51
3-yr. avg.	26	12	38	10	8	19	36	20	56

Table 4. Age distribution of black bear for Salmon Region DAUs, 1994-present.

DAU/ Year	Sex	Age											Unknown	Total
		Cub	1	2	3	4	5	6	7	8	9	10+		
1I														
1994	M	0	4	8	2	3	5	1	1	2	1	3	4	34
	F	0	2	4	1	3	0	0	1	1	0	6	5	23
1995	M	1	4	1	2	4	1	2	2	1	2	4	4	28
	F	0	1	2	3	0	0	0	1	0	2	5	1	15
1996	M	0	2	3	2	2	3	1	1	0	0	1	2	17
	F	1	0	1	0	1	0	1	1	0	0	2	0	7
1997	M	0	0	0	4	6	3	1	0	0	0	0	1	15
	F	0	1	0	1	0	2	0	0	0	0	1	2	7
1998	M	0	0	1	1	5	1	2	0	0	0	2	1	13
	F	0	0	1	0	1	0	1	0	0	1	0	0	4
1999	M	0	1	4	4	1	5	3	5	1	1	1	6	32
	F	0	1	0	0	0	1	0	2	0	0	1	1	6
2000	M	0	2	5	11	7	1	2	2	2	2	1	5	40
	F	0	0	1	0	0	2	0	1	0	0	4	1	9
2001	M	0	3	5	6	4	5	0	0	0	1	4	4	32
	F	0	2	0	0	1	2	0	1	0	0	7	1	14
2002	M	0	0	5	7	5	2	3	1	1	1	5	0	30
	F	0	0	1	0	4	3	0	1	0	0	3	0	12
2003	M	0	6	3	2	1	3	0	1	0	2	4	3	25
	F	0	0	0	3	0	3	1	0	1	2	1	1	12
1J														
1994	M	0	10	9	8	11	4	2	0	4	0	8	1	57
	F	0	3	1	2	5	4	1	2	0	0	6	1	25
1995	M	1	3	8	6	5	3	5	1	1	2	3	1	39
	F	0	2	7	8	2	9	0	0	0	2	7	0	37
1996	M	0	3	3	9	10	3	5	1	1	1	5	2	43
	F	0	0	0	2	4	1	1	1	1	1	1	0	12
1997	M	0	5	4	4	3	6	0	2	3	0	4	1	32
	F	0	2	2	2	2	4	0	0	1	1	3	4	21
1998	M	0	4	9	5	2	5	4	2	3	0	1	6	41
	F	0	0	1	1	1	1	2	1	2	0	3	0	12
1999	M	0	3	1	6	3	4	6	2	4	3	4	2	38
	F	0	1	1	4	0	1	0	2	0	0	2	1	12
2000	M	0	6	20	6	16	5	3	5	5	3	3	4	76
	F	0	2	7	2	7	0	2	0	3	0	4	0	27
2001	M	0	8	11	16	9	10	0	5	1	2	9	5	76
	F	0	3	0	3	1	1	2	3	1	1	10	1	26
2002	M	0	10	18	8	13	11	9	2	5	3	8	0	87
	F	0	3	8	4	10	2	5	3	0	1	6	0	42
2003	M	1	4	5	6	5	6	7	4	2	0	6	0	46
	F	0	6	1	3	2	2	2	1	0	0	10	0	27

Table 4. Continued.

DAU/ Year	Sex	Age											Unknown	Total
		Cub	1	2	3	4	5	6	7	8	9	10+		
4E														
1994	M	1	5	4	0	4	1	0	1	1	0	2	2	21
	F	1	1	1	4	2	0	1	0	0	0	5	0	15
1995	M	0	2	1	8	5	4	0	0	0	2	2	2	26
	F	0	0	2	4	1	0	0	1	0	0	4	2	14
1996	M	0	1	1	3	5	1	3	0	0	0	2	0	16
	F	0	1	0	2	2	0	1	0	0	0	3	0	9
1997	M	0	0	4	3	3	2	0	3	2	0	0	1	18
	F	0	0	0	3	2	1	0	0	0	0	4	1	11
1998	M	0	1	4	0	0	1	1	1	2	1	0	0	11
	F	0	2	3	0	2	2	3	0	0	0	2	1	15
1999	M	0	3	7	1	1	2	4	4	3	0	0	0	25
	F	0	1	2	3	0	1	0	0	2	1	3	1	14
2000	M	0	1	3	3	11	1	0	2	0	0	0	2	23
	F	0	1	6	3	1	0	1	1	1	0	3	2	19
2001	M	0	2	6	5	4	9	1	0	2	0	2	0	31
	F	0	0	2	4	0	1	0	2	2	1	3	1	16
2002	M	0	2	14	7	7	2	5	0	1	1	3	0	42
	F	0	4	6	4	0	1	1	0	1	2	8	0	27
2003	M	0	4	2	4	7	7	3	2	0	0	3	3	35
	F	0	0	2	1	0	4	3	0	0	0	4	2	16

Table 5. 2000-2010 Black Bear Plan management values and criteria for Salmon Region DAUs, 1994-present.

DAU/Year	N ^a	% Females	% Males ≥5 ^b	# Males ≥5 ^b
1I				
1994	57	40	43	13
1995	45	33	46	12
1996	24	29	40	6
1997	22	32	29	4
1998	17	24	42	5
1999	38	16	62	16
2000	49	18	29	10
2001	46	30	36	10
2002	42	29	43	13
2003	37	32	46	10
3-year avg.	42	28	42	11
Desired levels		>40	<25	
1J				
1994	81	31	31	17
1995	73	48	39	15
1996	55	22	39	16
1997	54	40	48	15
1998	53	23	43	15
1999	50	24	64	23
2000	103	26	33	24
2001	102	25	38	27
2002	132	33	44	38
2003	73	37	54	25
3-year avg.	102	32	45	30
Desired levels		30-40	25-35	
4E				
1994	36	42	26	4
1995	39	39	33	8
1996	25	36	41	6
1997	29	38	41	7
1998	26	58	55	6
1999	39	36	52	13
2000	43	45	14	3
2001	47	34	45	14
2002	72	40	29	12
2003	51	31	43	15
3-year avg.	57	35	39	14
Desired levels		30-40	25-35	

^a Number of black bears for which sex was determined (excluding unknown).

^b Number of black bears for which age was estimated (excluding unknown).

Table 6. Method of black bear harvest for Salmon Region DAUs, 1994-present.

DAU/Year	Bait	Hounds	Still	Incidental	Other	Total
1I						
1994	12	11	15	16	0	54
1995	8	8	6	19	0	41
1996	9	4	2	9	0	24
1997	7	4	4	7	0	22
1998	1	3	5	8	0	17
1999	14	5	10	10	0	39
2000	25	2	10	12	1	50
2001	20	6	7	11	2	46
2002	19	1	17	6	1	44
2003	17	4	10	6	1	38
1J						
1994	15	26	17	23	0	81
1995	13	22	18	20	0	73
1996	18	16	10	10	1	55
1997	11	17	10	15	1	54
1998	13	15	9	14	2	53
1999	12	17	10	10	1	50
2000	37	15	33	15	3	103
2001	33	17	23	18	11	102
2002	34	21	43	31	3	132
2003	32	13	10	12	6	73
4E						
1994	4	14	8	9	1	36
1995	12	9	6	12	0	39
1996	9	5	6	5	0	25
1997	9	12	2	6	0	29
1998	11	5	3	7	0	26
1999	15	12	5	5	2	39
2000	18	10	7	7	0	42
2001	28	5	4	7	3	47
2002	28	11	9	23	0	71
2003	26	14	4	8	0	52

^a Total may exceed sum of method types because hunters can identify multiple methods.

Table 7. Weapon type used to harvest black bear for Salmon Region DAUs, 1994-present.

DAU/Year	Rifle	Archery	Muzzleloader	Handgun	Other	Total
1I						
1994	43	7	0	5	1	56
1995	34	5	0	6	0	45
1996	18	2	0	4	0	24
1997	17	2	0	3	0	22
1998	12	3	0	2	0	17
1999	28	9	1	1	0	39
2000	37	9	0	2	0	48
2001	30	10	0	5	1	46
2002	34	7	1	2	0	44
2003	24	9	0	1	1	35
1J						
1994	60	13	0	8	0	81
1995	57	9	0	5	2	73
1996	46	7	0	2	0	55
1997	43	8	1	2	0	54
1998	41	8	2	2	0	53
1999	42	7	0	1	0	50
2000	84	14	1	2	2	103
2001	86	10	3	3	0	102
2002	110	16	1	3	0	130
2003	55	15	0	2	1	73
4E						
1994	25	6	2	3	0	36
1995	28	7	0	4	0	39
1996	21	2	0	1	1	25
1997	21	5	0	3	0	29
1998	20	3	0	2	1	26
1999	22	7	0	9	1	39
2000	28	9	0	4	1	42
2001	30	13	1	3	0	47
2002	51	12	3	5	1	72
2003	40	9	0	1	1	51

Table 8. Black bear depredation complaints for Salmon Region DAUs, 1994-present.

Year	DAU			Total
	1I	1J	4E	
1994	11	33	20	64
1995	0	6	1	7
1996	0	12	0	12
1997	0	0	0	0
1998	12	11	4	27
1999	2	1	0	3
2000	0	18	0	18
2001	1	2	1	4
2002	1	9	5	15
2003	0	3	1	4

Submitted by:

Jim Hayden
Regional Wildlife Manager

Jay Crenshaw
Regional Wildlife Manager

Jeff Rohlman
Regional Wildlife Manager

Randy Smith
Regional Wildlife Manager

Daryl Meints
Regional Wildlife Manager

Tom Keegan
Regional Wildlife Manager

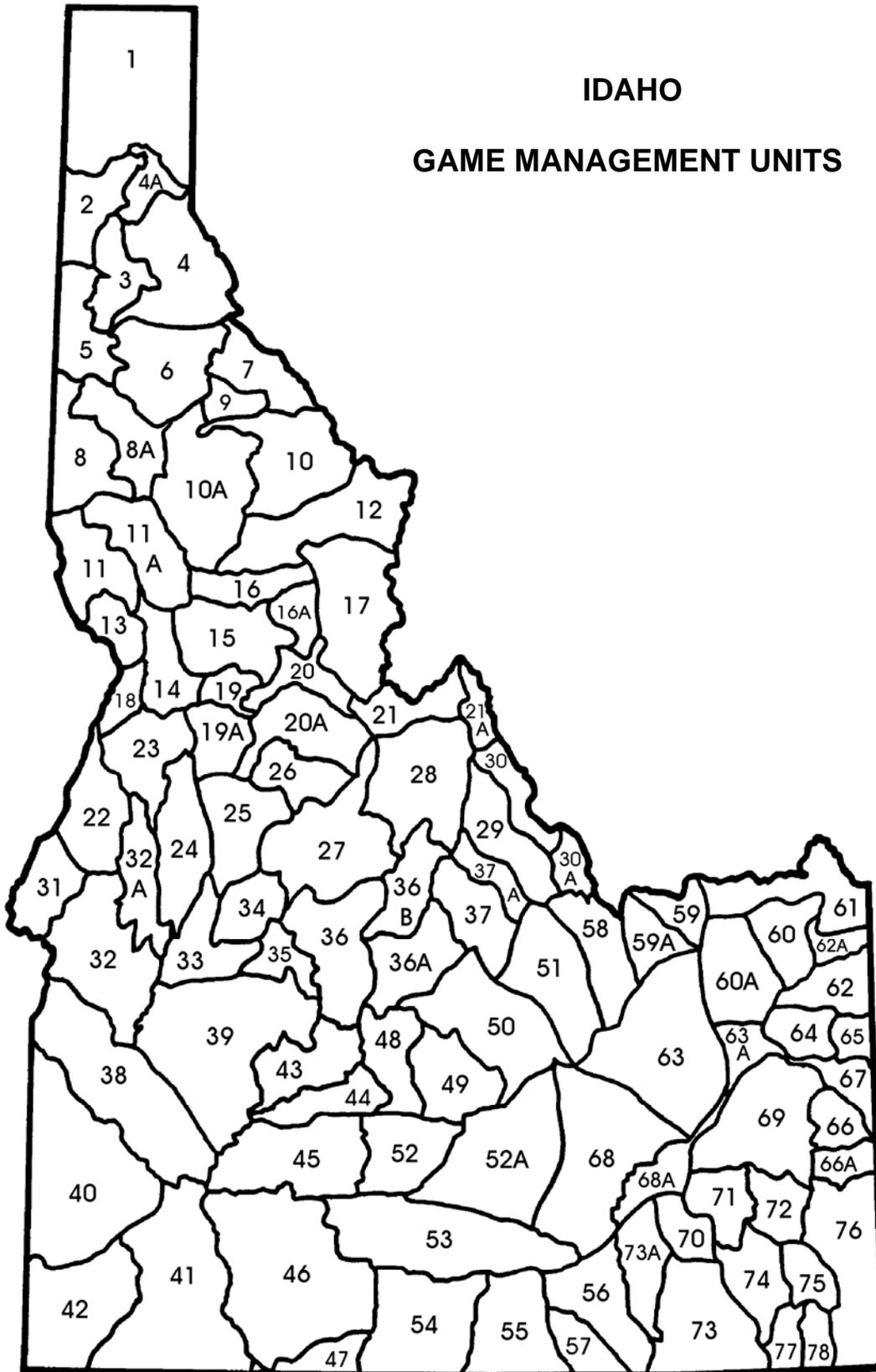
Approved by: IDAHO DEPARTMENT OF FISH AND GAME

Dale E. Towell
Wildlife Program Coordinator
Federal Aid Coordinator

James W. Unsworth, Chief
Bureau of Wildlife

IDAHO

GAME MANAGEMENT UNITS



FEDERAL AID IN WILDLIFE RESTORATION

The Federal Aid in Wildlife Restoration Program consists of funds from a 10% to 11% manufacturer's excise tax collected from the sale of handguns, sporting rifles, shotguns, ammunition, and archery equipment. The Federal Aid program then allots the funds back to states through a formula based on each state's geographic area and the number of paid hunting license holders in the state. The Idaho Department of Fish and Game uses the funds to help restore, conserve, manage, and enhance wild birds and mammals for the public benefit. These funds are also used to educate hunters to develop the skills, knowledge, and attitudes necessary to be responsible, ethical hunters. Seventy-five percent of the funds for this project are from Federal Aid. The other 25% comes from license-generated funds.

