

IDAHO DEPARTMENT OF FISH AND GAME

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Job Progress Report



BLACK BEAR

Study I, Job 9

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**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE: Idaho **JOB TITLE:** Black Bear Surveys and Inventories
PROJECT: W-170-R-23
SUBPROJECT: 1-7 **STUDY NAME:** Big Game Population Status, Trends,
STUDY: I Utilization and Associated Habitat
JOB: 9 Studies
PERIOD COVERED: July 1, 1998 to June 30, 1999

BLACK BEAR – STATEWIDE

SUMMARY

The Idaho Department of Fish and Game used two methods to collect harvest information on black bears in 1998: the telephone harvest survey and 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 10 days of the kill date.

A total of 30,961 black bear tags was sold to resident and nonresident bear hunters in 1998. The Department also issued 1,832 baiting permits and sold 2,129 resident and 76 nonresident hound hunter permits in 1998.

Successful black bear hunters checked 1,978 bears at Department regional offices or official checkpoints. Of the black bears harvested, 1,097 (55%) were taken during the fall season. Males comprised 70% of the spring harvest and 61% of the fall harvest. Most black bears killed during the 1998 season were taken by still hunters (693). Hunters using bait harvested 382 black bears, hunters using dogs took 300 black bears, and incidental hunters took 570 black bears. Archers accounted for 174 black bears in 1998. Fifty-three percent of the harvested black bears were taken over bait, 22% were taken by hunters using dogs, and 16% were taken by hunters using still hunting methods. Hunters using guides took 226 black bears.

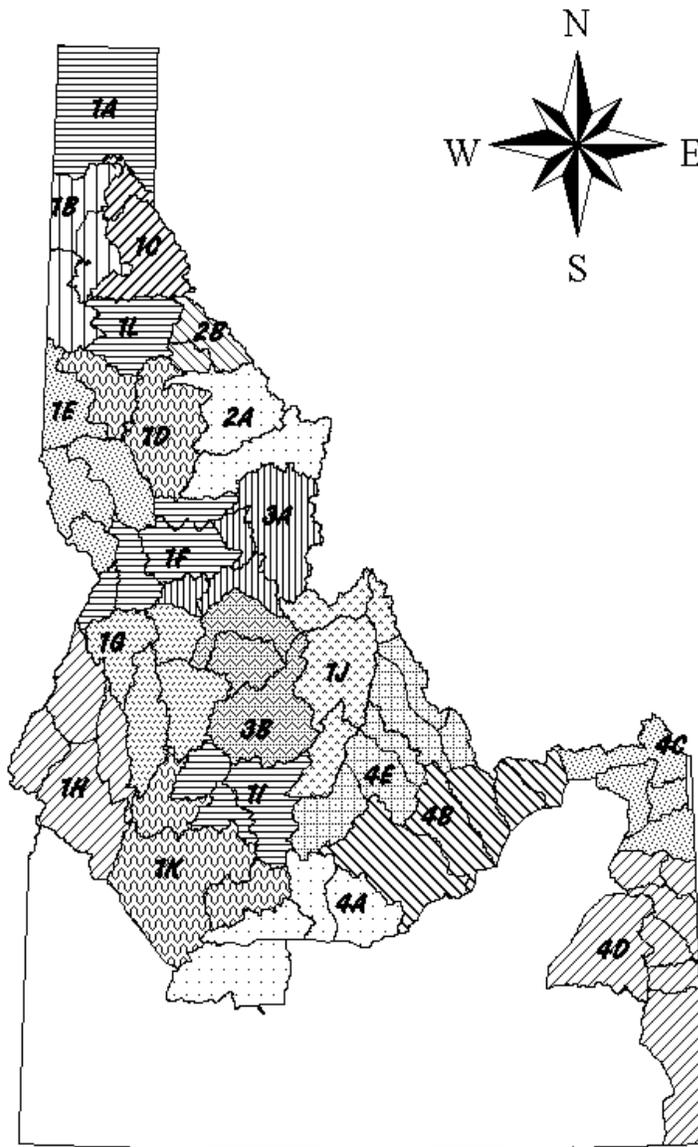


Figure 1. Twenty-one (21) data analysis units (DAUs) for black bear management in Idaho.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Black Bear Surveys and</u>
PROJECT:	<u>W-170-R-22</u>		<u>Inventories</u>
SUBPROJECT:	<u>1</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>I</u>		<u>Utilization and Associated Trends,</u>
JOB:	<u>9</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 1998 to June 30, 1999</u>		

BLACK BEAR - PANHANDLE REGION

ABSTRACT

Harvest was significantly above normal in both the spring and fall harvest in 1998. Overall, male harvest was 65% above the 3-year average, while the female harvest was up 53%. The 1998 black bear harvest in the Panhandle totaled 835, with 34% females in the harvest. The previous 3-year average is 35% females in the harvest. Depredation complaints skyrocketed last year due to failure of the summer and fall berry crop. As a whole the Panhandle black bear population meets the desired condition for the percentage of females in the harvest.

AREA 1

MANAGEMENT DIRECTION

The Department will manage Area 1 to maintain or reduce harvest, improve the age structure, and offer a variety of hunting opportunities. The "reservoir concept" is not a major influence affecting Area 1. That is, harvest data do reflect true population characteristics, and no reservoir of unharvested black bears exists to disperse into hunted areas. A controlled hunt allowing use of dogs is provided outside the grizzly bear recovery boundaries near Priest River.

DAU 1A (GMU 1)

ABSTRACT

Reported harvest of black bear in DAU 1A was 314 during 1998. The percentage of females in the harvest was 31%.

BACKGROUND

DAU 1A is one of 12 DAUs comprising Management Area 1. 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. Since 1991 a small controlled hunt allowing use of hounds has been allowed in a portion of DAU 1A outside of these recovery areas. During 1993 the season was shortened from 108 to 80 days and has since been increased to the current 96 days (Table 1).

In general this DAU is characterized by dense conifer habitat types. Portions of the Selkirk, Cabinet, and Purcell ranges are included in this DAU, with the broad Kootenai River Valley providing the only substantial agriculture area. Overall, DAU 1A contains some of the highest quality black bear habitat in Idaho.

HARVEST CHARACTERISTICS

Mandatory Check

The mandatory check and report program for black bear was implemented in 1983. This regulation was initiated to improve the Department's knowledge of harvest and population statistics in the absence of fine resolution in the telephone survey.

The 323 black bears checked during 1998 was 54% above that of the past 3-year average (Table 3). The spring 1998 kill was near normal but was offset by a very high fall kill. A very poor berry crop accounted for this increase.

Sex Ratio/Age Structure

The percentage of females in the 1998 harvest was 31% and the 3- year average was 34%. This is within the "desired" category according to the 1992-2000 Black Bear Management Plan.

Method of Take

Eighty-two percent of the 1998 black bear harvest in DAU 1A was by hunters specifically seeking and stalking black bear (Table 4). Fifteen percent were killed incidental to other activities, such as hunting other big game species, camping, firewood cutting, and other activities.

Weapon

Over 90% of the black bears in DAU 1A are killed with rifles, with the remainder split evenly between archery gear and pistols (Table 5).

DEPREDATIONS

Depredations have been a significant problem in DAU 1A, largely because of sanitation problems in the Priest Lake area. Over 160 complaints were recorded in 1998, the highest number in recent history (Table 2). A very poor berry crop in 1998 is responsible for most of this increase. Steps have been taken to address some of these sanitation issues at county dump sites and state parks, but problems will likely persist. In poor berry years like that experienced in 1998, depredations will always be present.

DOG TRAINING SEASONS

No dog training season is permitted in DAU 1A to help maintain survival of grizzly bears in the Selkirk and Cabinet/Yaak Recovery Areas.

MANAGEMENT IMPLICATIONS

This population is within the desired level for the percentage of females in the harvest. Age data for 1998 are unavailable.

DAU 1B (GMUS 2, 3, AND 5)

ABSTRACT

Reported harvest of black bear in DAU 1B was 205 during 1998. The percentage of females in the harvest was above the desired level for 1998 (40%) and the 3-year average (39%) is also above the desired level.

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 diversities 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

Mandatory Check

The 1998 harvest of 205 black bears is 92% above that for the previous 3 years, with significant increases in both the spring and fall seasons (Table 6).

Sex Ratio/Age Structure

Age data are unavailable for 1998. The percentage of females in the harvest was 40% during 1998. The three-year average of 39% is above the desired level.

Method of Take

Use of baiting and hounds is substantial in DAU 1B. Forty-two percent of the black bears harvested in this DAU are taken with one of these aids (Table 7). Still hunting and incidental harvest accounted for 56% of the harvest.

Weapon

Eighty-six percent of the black bears taken in DAU 1B are taken with a rifle (Table 8).

DEPREDACTIONS

One hundred three black bear depredations were handled in DAU 1B during 1998, a level much higher than normal (Table 2).

DOG TRAINING SEASONS

There is no dog training season in this DAU due to the high level of private ownership and high recreation use of public lands near Coeur d'Alene.

MANAGEMENT IMPLICATIONS

The percentage of females in the kill is above desired levels and the age structure remains young, based on previous years' data. This DAU will be monitored carefully to evaluate the need for further restrictions.

DAU 1C (GMUS 4 AND 4A)

ABSTRACT

Reported harvest of black bear in DAU 1C was 143 during 1998, up 54% from the 3-year average.

BACKGROUND

DAU 1C consists mainly of US Forest Service property and a belt of private property in Silver Valley. Much of this DAU has been burned by wildfires since 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

Mandatory Check

The harvest of black bears from DAU 1C has increased slowly since 1983, peaking with the 1992 harvest. Season restrictions beginning in 1993 reduced harvest. However, the reported harvest of 143 bears in 1998 surpassed all previous harvest records (Table 9).

Sex Ratio/Age Structure

Age structure information is unavailable for 1998. Females made up 32% of the harvest in 1998. The three-year average of 35% females in the harvest puts this DAU within the "desired" category.

Method of Take

This DAU has traditionally supported a substantial harvest for hunters using hounds. This type of use declined abruptly during 1992, concurrent with an increase in other categories (Table 10). Only 15% of the black bears harvested in this DAU are taken with the aid of hounds and/or bait. Still hunting and incidental kills made up 42% and 27% of the harvest, respectively.

Weapon

Over 90% of the black bears killed in DAU 1C are taken with rifles (Table 11).

DEPREDATIONS

DAU 1C has historically had few black bear depredations despite the high human presence found in the Silver Valley (Table 2). However, 46 complaints were reported for 1998, a significant increase over past years.

DOG TRAINING SEASONS

The 1998 dog training season in DAU 1C was May 16-July 31.

MANAGEMENT IMPLICATIONS

The percentage of females in the harvest is meeting desired conditions in this DAU, a change from previous years. The lower harvest associated with new season restrictions that began in 1993 has since returned to now surpass previous highs.

DAU 1L (GMU 6)

ABSTRACT

Harvest of black bears in DAU 1L was 99 during 1998, up 46% from the previous 3-year average.

BACKGROUND

This DAU is a mix of private property, mainly timber company lands, with a mix of US Forest Service, Bureau of Land Management, and Idaho Department of Lands 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. Black bear densities are low, and baiting of black bears has not been allowed since 1983 because of low densities.

HARVEST CHARACTERISTICS

Mandatory Check

The harvest in this DAU has fluctuated little since the mandatory check began in 1983, ranging between 50 and 80 black bears (Table 12). However, harvest in 1998 showed a 46% increase over the previous 3-year average. This follows the trend recorded throughout the region of a high harvest in 1998.

Sex Ratio/Age Structure

Age data are unavailable for 1998. Twenty-seven percent of the 1998 harvest was female, putting the three-year average at 36%, slightly above the “desired” category, but below “overharvest.”

Method of Take

Roughly 80% of the black bear kill in this DAU is from still and incidental hunters (Table 13), the remainder being almost entirely with use of hounds. No baiting is allowed in this DAU.

Weapons

Virtually all black bears taken in this DAU are taken with a rifle (Table 14).

DEPREDATIONS

Depredations are virtually nonexistent in this DAU (Table 2). However, 17 complaints were filed last year in this DAU, a number much higher than in the past.

DOG TRAINING SEASONS

The dog training season in this DAU was May 16-July 31.

MANAGEMENT IMPLICATIONS

Harvest since 1983 has not grown rapidly as seen in other DAUs in the Panhandle Region. However, as in other DAUs in the Panhandle, 1998 harvest was significantly higher. This DAU had a high percentage of females in the harvest in 1998 and does not meet the management criterion for desired conditions for the percentage of females in the harvest.

AREA 2

DAU 2B (GMUS 7 AND 9)

ABSTRACT

Harvest of black bears in DAU 2B was 66 during 1998, 57% above the previous 3-year average. Age structure information and the sex ratio of the harvest indicates this population is in good shape relative to the remainder of the Panhandle.

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 roadless areas preclude high levels of use. Most of the habitat in this DAU is managed by the US Forest Service.

HARVEST CHARACTERISTICS

Mandatory Check

Harvest in this DAU is relatively low, and quite variable, with about one-third of the harvest occurring during fall (Table 15).

Sex Ratio/Age Structure

Age data are unavailable for 1998. During the past three years, the harvest has been composed of only 26% females, putting this DAU well within the “desired” category.

Method of Harvest

Very little hound hunting occurs in DAU 2B. Still and incidental hunting accounted for 65% of the harvest, an increase from previous years (Table 16).

Weapon

Over 85% of the black bears taken in this DAU are killed with a rifle (Table 17).

DEPREDATIONS

Depredations are virtually nonexistent in this DAU (Table 2) due to the lack of private property. However, several complaints were filed last year in relation to the poor berry year.

DOG TRAINING SEASONS

The dog training season in this DAU was June 16-July 31.

MANAGEMENT IMPLICATIONS

Harvest criteria are better met in this DAU than any other in the Panhandle Region. Season changes initiated in 1993 had little effect on harvest numbers in this DAU, likely due to the low

level of still-hunting here. This population meets the desired condition for the percentage of females in the harvest.

Table 1. Summary of 1998 seasons by method for DAUs 1A, 1B, 1C, 1L, and 2B.

Season Type ^a	DAU	Units	Season	
			Dates	Length
General, any legal weapon	1A ^b	1	9/15-10/31	47
			4/15-5/31	47
Controlled, any legal weapon ^c			9/15-10/9	25
General, any legal weapon	1B ^d	2, 3, 5	9/15-10/31	47
			4/15-5/15	31
General, any legal weapon	1C ^d	4, 4A	9/15-10/31	47
			4/15-5/15	31
Pursuit			5/16-7/31	77
General, any legal weapon	1L ^{d,e}	6	9/15-10/31	47
			4/15-5/15	31
Pursuit			5/16-7/31	77
General, any legal weapon	2B	7, 9	9/15-10/31	47
			4/15-5/15	31
Pursuit			6/16-7/31	47

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

^b Dogs prohibited, bait prohibited.

^c Dogs allowed, bait prohibited, 10 permits, for a portion of Unit 1.

^d Dogs prohibited 4/15-4/30.

^e Bait prohibited.

Table 2. Black bear depredation complaints handled in the Panhandle Region, 1991-1998.

DAU	Year								
	1991	1992	1993	1994	1995	1996	1997	1998	
1A	45	13	6	18	38	18	66	167	
1B	13	3	4	10	18	22	34	103	
1C	4	1	2	0	5	2	4	46	
1L	1	1	1	0	0	0	0	17	
2B	0	1	0	0	0	0	0	7	

Table 3. Black bear harvest by season and sex of black bear taken in DAU 1A(GMU 1) 1995-1998.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1995	65	27	92	44	22	67	109	49	159 ^a
1996	102	49	151	41	28	70 ^a	143	77	221 ^a
1997	64	26	90	82	60	143	146 ^a	86	233
Ave.	77	34	111	56	37	93	133	71	204
1998	75	29	104	140	69	210 ^a	215	98	314 ^a
Change	-3%	-15%	-6%	150%	86%	126%	62%	38%	54%

^a Totals include one black bear, sex unknown.

^b Totals include two black bears, sex unknown.

Table 4. Method of harvest of black bear taken in DAU 1A (GMU 1), 1995-1998.

Year	<u>Bait</u>			<u>Hound</u>			<u>Still</u>			<u>Incidental</u>			<u>Unknown</u>			<u>Total</u>		
	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U
1995	0	0	0	0	0	0	42	18	1	9	8	0	59	23	0	110	49	1
1996	0	0	0	2	2	0	116	66	1	20	9	0	5	0	0	143	77	1
1997	1	0	0	0	1	0	84	51	0	53	28	0	8	6	1	146	86	1
1998	0	0	0	0	0	0	171	78	0	30	16	0	5	4	1	215	98	1

Table 5. Weapon type used to harvest black bear in DAU 1A (GMU), 1995-1998.

Year	<u>Rifle</u>			<u>Archery</u>		<u>Muzzleloader</u>		<u>Pistol</u>		<u>Unknown</u>			<u>Total</u>		
	M	F	U	M	F	M	F	M	F	M	F	U	M	F	U
1995	102	46	1	3	1	1	0	2	1	2	1	0	110	49	1
1996	138	74	1	2	0	1	0	1	3	1	0	0	143	77	1
1997	138	83	0	1	1	0	0	4	1	1	1	0	144	86	1
1998	196	95	0	7	2	0	0	5	1	76	1	1	215	98	1

Table 6. Black bear harvest by season and sex of black bear taken in DAU 1B (GMUs 2, 3, and 5) 1995-1998.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1995	34	6	43 ^b	33	19	52	67	25	95 ^b
1996	29	15	44	38	26	64	67	41	108
1997	19	15	35 ^a	51	32	84 ^a	70	47	119 ^c
Ave.	27	12	41	41	26	67	68	38	107
1998	42	24	66	79	59	139 ^a	121	83	205 ^a
Change	55%	100%	61%	93%	127%	107%	78%	118%	92%

^a Total includes one black bear, sex unknown.

^b Total includes three black bears, sex unknown.

^c Total includes two black bears, sex unknown.

Table 7. Method of harvest of black bear taken in DAU 1B (GMUs 2, 3, 5), 1995-1998

Year	<u>Bait</u>			<u>Hound</u>			<u>Still</u>			<u>Incidental</u>			<u>Unknown</u>			<u>Total</u>		
	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U
1995	11	5	0	9	6	0	17	8	1	8	3	0	22	4	2	67	26	3
1996	16	6	0	14	10	0	29	16	0	5	8	0	2	1	0	66	41	0
1997	11	9	0	12	11	0	25	11	1	18	16	1	4	0	0	70	47	2
1998	23	24	0	25	17	0	49	26	0	22	19	1	2	6	0	121	83	1

Table 8. Weapon type used to harvest black bear in DAU 1B (GMUs 2, 3, 5), 1995-1998.

Year	<u>Rifle</u>			<u>Archery</u>			<u>Muzzleloader</u>		<u>Pistol</u>			<u>Other</u>		<u>Total</u>		
	M	F	U	M	F	U	M	F	M	F	U	M	F	M	F	U
1995	48	22	2	9	3	1	3	0	7	1	0	0	1	67	27	3
1996	58	34	0	5	5	0	0	1	3	1	0	1	0	67	41	0
1997	59	40	2	5	4	0	1	1	1	1	0	4	1	70	47	2
1998	106	70	1	8	7	0	0	1	4	3	0	0	0	121	83	1

Table 9. Black bear harvest by season and sex of black bear taken in DAU 1C (GMUs 4, 4A), 1995-1998.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1995	23	15	38	33	13	46	56	28	84
1996	13	4	17	41	27	68	54	31	85
1997	17	3	20	50	39	90 ^a	67	42	110 ^a
Ave.	18	7	25	41	26	68	59	34	93
1998	40	14	54	56	33	89	96	47	143
Change	122%	100%	116%	37%	27%	31%	63%	38%	54%

^a Total includes one black bear, sex unknown.

^b Total includes two black bears, sex unknown.

^c Total includes three black bears, sex unknown.

^d Total includes four black bears, sex unknown.

Table 10. Method of harvest of black bear taken in DAU 1C (GMUs 4, 4A), 1995-1998.

Year	<u>Bait</u>			<u>Hound</u>			<u>Still</u>			<u>Incidental</u>			<u>Unknown</u>			<u>Total</u>		
	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U
1995	2	4	0	7	5	0	14	4	0	16	5	0	17	10	0	56	28	0
1996	5	1	0	9	8	0	18	15	0	18	6	0	3	1	0	53	31	0
1997	6	3	0	1	2	0	35	19	0	25	16	1	1	2	0	68	42	1
1998	15	6	0	16	4	0	39	22	0	24	15	0	1	0	1	95	47	1

Table 11. Weapon type used to harvest black bear in DAU 1C (GMUs 4, 4A), 1995-1998.

Year	<u>Rifle</u>			<u>Archery</u>		<u>Muzzleloader</u>		<u>Pistol</u>		<u>Unknown</u>			<u>Total</u>		
	M	F	U	M	F	M	F	M	F	M	F	U	M	F	U
1995	51	23	0	3	3	1	0	0	1	1	1	0	56	28	0
1996	50	24	0	3	3	0	0	1	4	0	0	0	54	31	0
1997	60	41	1	4	0	1	0	1	0	1	1	0	67	42	1
1998	86	45	0	7	1	0	0	2	1	2	0	0	95	47	1

Table 12. Black bear harvest by season and sex of black bear taken in DAU 1L (GMU 6), 1995-1998.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1995	18	7	25	28	10	38	46	17	63
1996	19	6	25	19	18	37	38	24	62
1997	14	9	23	30	27	57	44	36	80
Ave.	17	7	24	26	18	44	43	26	68
1998	34	8	42	38	19	57	72	27	99
Change	100%	14%	75%	46%	5%	30%	67%	4%	46%

^a Total includes one black bear, sex unknown.

Table 13. Method of harvest of black bear taken in DAU 1L (GMU 6), 1995-1998.

Year	<u>Bait</u>			<u>Hound</u>			<u>Still</u>			<u>Incidental</u>			<u>Unknown</u>			<u>Total</u>		
	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U
1995	0	0	0	8	2	0	16	3	0	11	7	0	11	5	0	46	17	0
1996	0	0	0	4	6	0	16	10	0	18	8	0	0	0	0	38	24	0
1997	0	0	0	9	2	0	20	17	0	13	14	0	2	3	0	44	36	0
1998	0	0	0	21	2	0	34	11	0	15	13	0	0	1	0	72	27	0

Table 14. Weapon type used to harvest black bear in DAU 1L (GMU 6), 1995-1998.

Year	<u>Rifle</u>			<u>Archery</u>			<u>Muzzleloader</u>		<u>Pistol</u>		<u>Other</u>		<u>Total</u>		
	M	F	U	M	F	U	M	F	M	F	M	F	M	F	U
1995	42	14	0	2	1	0	0	0	2	2	0	0	46	17	0
1996	37	22	0	1	1	0	0	0	0	1	0	0	38	24	0
1997	39	35	0	3	0	0	0	0	1	1	1	0	44	36	0
1998	68	24	0	3	1	0	0	0	1	1	0	1	72	27	0

Table 15. Black bear harvest by season and sex of black bear taken in DAU 2B (GMUs 7, 9) 1995-1998.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1995	17	8	25	12	2	14	29	10	39
1996	41	6	47	4	6	10	45	12	57
1997	25	5	30	8	6	14	33	11	44
Ave.	28	6	34	8	5	13	36	11	47
1998	38	12	50	16	8	24	54	20	74
Change	36%	100%	47%	100%	60%	85%	50%	82%	57%

^a Total includes one black bear, sex unknown.

Table 16. Method of harvest of black bear taken in DAU 2B (GMUs 7, 9), 1992-1998.

Year	<u>Bait</u>			<u>Hound</u>			<u>Still</u>			<u>Incidental</u>			<u>Unknown</u>			<u>Total</u>		
	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U
1995	1	0	0	1	0	0	3	2	0	9	2	0	15	6	0	29	10	0
1996	26	3	0	2	0	0	8	5	0	8	4	0	1	0	0	45	12	0
1997	15	4	1	3	0	0	5	1	0	8	4	0	2	2	0	33	11	0
1998	16	3	0	4	1	0	17	7	0	15	9	0	0	0	0	20	54	0

Table 17. Weapon type used to harvest black bear in DAU 2B (GMUs 7, 9), 1995-1998.

Year	<u>Rifle</u>			<u>Archery</u>		<u>Muzzleloader</u>		<u>Pistol</u>		<u>Unknown</u>		<u>Total</u>		
	M	F	U	M	F	M	F	M	F	M	F	M	F	U
1995	24	8	0	4	1	1	0	0	1	0	0	29	11	0
1996	37	12	0	8	0	0	0	0	0	0	0	45	12	0
1997	27	10	1	5	1	0	0	1	0	0	0	33	11	0
1998	40	18	0	8	2	2	0	2	0	2	0	54	20	0

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE: Idaho **JOB TITLE:** Black Bear Surveys and Inventories
PROJECT: W-170-R-23
SUBPROJECT: 2 **STUDY NAME:** Big Game Population Status,
STUDY: I Trends, Utilization and Associated
JOB: 9 Habitat Studies
PERIOD COVERED: July 1, 1998 to June 30, 1999

BLACK BEAR - CLEARWATER REGION

ABSTRACT

Reported harvest during 1998 for the Clearwater Region was 664 bears, a 52% increase from 1997. The 1990-1992 average harvest was 466. Until 1993, harvest had increased nearly every year. The 3-year average from 1995-1997 was 422 bears, a 9% reduction in harvest, and likely a result of the change in season regulations. However, harvest in 1998 indicates a harvest level never recorded in Clearwater Region. Total harvest by DAU during 1998 was 1D-139, 1E-76, 1F-88, 2A-291, and 3A-70.

The 1992-2000 Black Bear Management Plan values for the median age criteria were not met fully for any DAU during 1997 and due to the lack of age data, not measured in 1998. The 2000-2010 criteria were met in all DAUs for objectives outlined, but age data were not available for 1998. Since the 1993 regulation changes, much of the harvest effort has changed from spring to fall. Management implications indicate a need for continued monitoring as harvest levels continue to climb. All values have to be reviewed in perspective of harvest trends, scent station surveys, and known hunting effort based on road densities, amount of DAUs accessed, and new hunting patterns resulting from regulation changes.

AREA 1

DAU 1D (GMUS 8A, 10A)

ABSTRACT

DAU 1D historically has been one of the most overharvested DAUs in the region. Overharvest criteria were exceeded in 4 of the 4 variables in 1992. In 1993 seasons were changed to reduce the harvest of bears in this DAU. The regulation changes apparently were successful in reducing harvest by an average of 16% over the following 3 years. However, during 1996, harvest

rebounded to 108 and increased again in 1997 to 122 and in 1998 to 139, which was about the same or higher than prior to the regulation change. When analyzed by season and method, most harvest during 1998 occurred in the fall (74%), by incidental hunters (47%). 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 bear habitat.

MANAGEMENT DIRECTION

DAU 1D has historically received intensive bear harvest. Due to apparent high fall incidental harvest by deer and elk hunters, management criteria will not likely be met. However, new criteria reflecting level of harvest indicate 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 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 2-week pursuit season. The season length under the 1992-2000 Black Bear Management Plan has been reduced to 62 days, with a 77-day pursuit season. No changes in this DAU were included in the 2000-2010 Bear Plan. The fall season was extended in 1997 to a total season length of 78 days (Table 1). No season changes occurred during 1998. Bear baiting is not allowed.

Mixed land ownership and high road densities on U.S. Forest Service, Idaho Department of Lands, timber company, and small private ownerships characterize these units. Although the habitat provides high quality forage, easy hunter access has led to overharvest 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 bears.

POPULATION SURVEYS

Bait station surveys were not conducted in DAU 1D in 1996, 1997, or 1998 (Table 2). This technique is being evaluated for its effectiveness in monitoring population trends.

HARVEST CHARACTERISTICS

One hundred thirty-nine bears were harvested in DAU-1D during 1998, an increase of 32% from the previous 3-year average (Table 3). About 47% of the bears were females. Most bears (74%) were harvested during the fall season. This is consistent with 1993-1997, but a reversal from 1990-1992 when spring harvest predominated. In 1992 age distribution for harvested animals was skewed to younger bears and overharvest criteria were exceeded in 4 of the 4 categories, the most critical being percent females and median age of females in 1992 (Tables 3 and 4). Age characteristics of harvest for 1994-1997 indicated that all criteria were again exceeded (Table 5). The 1998 age data criteria (incomplete) were not met again.

The single method of harvest most preferred by hunters in 1998 was incidental hunting, accounting for 47% of the harvest, followed by hound (25%), still (26%), and baiting (0%) (Table 6). This was a reversal from 1990-1992, when baiting was the most common method used, accounting for 37% of the harvest. Weapon type used most frequently was rifle (95%), followed by pistol (2%) and archery (2%). During the 1990-1992 period, archery comprised 17% of the harvest. During 1993-1998, archery comprised only 3% of the harvest, probably a result of baiting restrictions (Table 7).

DEPREDATIONS

Nine black bear depredations occurred in DAU 1D in 1998, increasing from 5 complaints in 1997 (Table 8). Poor berry season contributed to increased problems.

DOG TRAINING SEASONS

An 11-week dog training season from 16 May - 31 July was allowed in DAU 1D during 1998.

MANAGEMENT IMPLICATIONS

According to new management criteria, bears were heavily harvested in DAU 1D. 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.

Recent harvest records show increased harvest of predominantly younger age class bears. This could be indicative of increased numbers of subadult dispersers dominating the harvest. The 1995-1998 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 objectives allow for maintaining high harvest in this DAU. However, older age class bear numbers are stable.

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

ABSTRACT

Hunters in DAU 1E harvested 76 bears during 1998; 34% were females. Sixty-five percent of black bears harvested were killed in the fall, 69% of which were killed by still hunters or incidental to other activities.

MANAGEMENT DIRECTION

Because most of the bear habitat in DAU 1E is privately owned and in steep canyons, even harvest distribution does not occur. 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 bear habitat and the potential for overharvest in isolated/fragmented habitats.

BACKGROUND

DAU 1E lies mostly along the western side of the Clearwater Region and is predominantly private land. Difficult access and fragmented 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.

The climate in this DAU ranges from hot and arid along the river breaks, to cooler and moist in areas receiving more rainfall and snow at higher elevations. The 1998 season length was 78 days, a reduction of 29 days from 1992. Dog-training season was 77 days (Table 1).

POPULATION SURVEYS

Bait station surveys were conducted between 9-14 July 1997 in Unit 11. Unit 11 was chosen because of representative habitat and the availability of personnel to assist. Ten transects were sampled along available roads, 6 of which were closed to public access. Sixteen percent of the 50 available stations were visited by bears, compared to 6% in 1996 (Table 2). Transects were not conducted in 1998.

HARVEST CHARACTERISTICS

Seventy-six bears were harvested in DAU 1E during 1998, the highest harvest recorded in the last decade; 66% were taken in the fall (Table 9). Adult male age criteria were in the heavy harvest category and the percent females harvested was 40% (incomplete age data) (Tables 10 and 11).

The most effective methods of harvest were still and incidental hunting, and accounted for 36% and 32% of the harvest, while harvest with the use of dogs accounted for only 18% of the harvest in 1998 (Table 12). The weapon type most frequently used was rifle, which accounted for 88% of the harvest, followed by archery (11%) and pistol (1%) (Table 13).

DEPREDATIONS

Most of the land in this DAU is private. Ten depredation complaints were recorded in 1998, the same as 1997.

DOG TRAINING SEASONS

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

MANAGEMENT IMPLICATIONS

Much of the land in GMUs 8, 11, 11A, and 13 is either agricultural or river breaks and bear habitats are isolated. Consequently, most harvest occurs along major road corridors at higher elevations. Many of the young bears harvested are probably dispersing to new territories, with adult bears using better quality habitats away from the roads. Populations will probably not change rapidly under any season structure due to relatively low quality habitat occupying most of this DAU. Also, it is likely that without much greater access, harvest will continue to reflect young dispersers. Forty percent of the harvest was female and may indicate that the productive elements of the population (females) were usually selecting more isolated areas, thus reducing the likelihood of mortality except on low fall food years like 1998. The majority of bears in any cohort being harvested in this DAU historically are 1- and 2-year-old dispersing males.

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

ABSTRACT

Hunters in DAU 1F harvested 88 bears during last year, a 26% increase from 1995-1997 average. More bears are killed now in this DAU than prior to the regulation changes in 1992. Most bears (67%) were harvested during the fall, a change from 1990-1992 seasons when spring harvest predominated, accounting for 57% of the harvest. The most frequent harvest methods were incidental (38%) and by use of bait (27%) while using a rifle (90%) or bow (6%).

MANAGEMENT DIRECTION

Prior to 1993 bear harvest had increased in DAU 1F, probably as a result of increased road densities in previously unroaded areas. The Black Bear Management Plan (1992-2000) adopted a decrease in season length and more restrictions on use of trailing dogs during the take seasons. The dog-training season was lengthened. The direction for management was to reduce bear harvest, improve bear population demographics, and maintain hunting opportunity with a variety of hunting techniques. The new bear plan 2000-2010 calls for maintaining current harvest levels.

BACKGROUND

Under the 2000-2010 Black Bear Management Plan, the units and their seasons in DAU 1F were similar to the last bear plan. Under the 1992-2000 plan, the take season was shortened to 62 days, with a dog-training season of 77 days (Table 1). During 1997 the fall season was extended, lengthening the season to 78 days.

DAU 1F is comprised of about 80% U.S. Forest Service 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 wilderness areas in these units that provide for core security areas for bears.

POPULATION SURVEYS

Bait station surveys were conducted during 1998 for the elk productivity research study and tetracycline baits were placed. Data were analyzed for trails and open and closed roads. In general, trails and closed roads received more hits than did open roads. Seventy-two transects were surveyed and 95 of the 352 sites were visited by bears, resulting in a 27% visitation rate (Table 2).

HARVEST CHARACTERISTICS

Eighty-eight bears were harvested in DAU 1F during 1998, 67% during the fall. Females comprised 40% of the harvest in DAU 1F. Management objectives under the new plan indicate heavy harvest (Tables 15 and 16). The most frequent methods of harvest were incidental (38%), followed by the use of baiting (27%), hounds (20%), and still hunting (15%) (Table 17). Rifle was the most frequent (90%) weapon type (Table 18).

DEPREDACTIONS

Seventeen depredation complaints were recorded for this DAU during 1998, up considerably over previous years due to poor fall food productions.

DOG TRAINING

Dog-training season ran from May 16-July 31, 1998 in DAU 1F (Table 1).

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 bear harvest criteria indicate high harvest levels, the high quality bear habitat in this DAU should allow bear populations to be maintained at desired levels in reserve and unroaded 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 3 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.

AREA 2

DAU 2A (GMUS 10, 12)

ABSTRACT

During 1998, 291 bears were harvested in DAU 2A, an increase of 137% over the previous 3-year average. Of these, only 35% were females. Seventy-three percent were harvested during the spring season. Bait hunting accounted for 52% of the harvest. Rifle harvest accounted for 76% and archery 19%. 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., GMU 10A). Harvest occurs mainly on major road and river corridors in DAU 2A, probably accounting for reduced age structure in the harvest data. Take seasons last 128 days, with a 31-day dog-training season (Table 1). The Department will continue to monitor harvest data on a 3-year average and conduct bait station surveys to obtain data to manage for a healthy population structure and harvest of bears. Additionally, tetracycline baits will allow calculation of a population estimate for this DAU over time.

BACKGROUND

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

POPULATION SURVEYS

Intensive bait station surveys were conducted during 1997 and 1998 as part of the elk productivity research study. The extensive efforts included use of tetracycline baits for determining population size, and intensive overall efforts to determine trends (Table 2). Fifty-nine transects and 293 sites were sampled, with a visitation rate of 38.9%. In general, the sites on closed roads and trails received higher visitation rates than those on open roads.

HARVEST CHARACTERISTICS

During 1998, 291 bears were harvested in DAU 2A, an increase of 137% over the previous 3-year average. Seventy-three percent of these bears were harvested during spring (Table 19). Only 35% of the bears harvested were females. The low number of females harvested may be representative of a stable and probably healthy population in this DAU. Age data criteria set under the new management plan allow for increased harvest. Current age criteria indicate harvest levels are moderate (Tables 20 and 21).

Hunting over bait accounted for 52% of the harvest in DAU 2A, followed by still (15%), incidental (18%), and hounds (14%) (Table 22). Rifle was the most common weapon used (76%), then bow (19%) (Table 23).

DEPREDATIONS

A record 12 depredation complaints were recorded during fall 1998, an indication of a poor huckleberry crop in DAU 2A.

DOG TRAINING SEASONS

A 1.5-month dog-training season occurred during 1998 from July 1 through July 31.

MANAGEMENT IMPLICATIONS

DAU 2A receives moderate hunting pressure because of its roaded habitats, public land, and healthy bear populations. Harvest is high in the male component, with a median age of 3 years in

1997 and 31% 5+ -year-old males. The adult female segment remains secure in the unroaded segments of the DAU.

DAU 2A has a potential for high bear numbers because of the quality habitat. Harvest was reduced dramatically from 1993-1996 under the old bear plan, but increased during 1996 and 1997 to that level occurring prior to the season changes. Because bear populations appear to be very healthy, an opportunity to harvest more bears became apparent and most of the season length was extended to the end of June.

Most of the harvest in this DAU occurs in the spring, the opposite of the other DAUs in the region. Also, typical record deep snows that remain until late in the spring prevent access to much of the DAU during the spring season; therefore, the extension of the season in June is warranted.

AREA 3

DAU 3A (GMUS 16A, 17, 19, AND 20)

ABSTRACT

During 1998, 70 bears were reported harvested in DAU 3A, about 18% more than the previous 3-year average. Of these, 30% were females. This is the only DAU in the region where the old management criteria objectives were regularly met, and new criteria suggest a lightly hunted population. About half of the bears were harvested during the fall. Most bears were harvested either by still or incidental hunting.

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.

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 (Table 1). 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 bear habitat. The northern portions receive substantial rainfall and provide some of the best 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, bear populations are probably quite healthy. Incidental harvest during other big game seasons distributes some pressure across the DAU.

POPULATION SURVEYS

Bear bait station surveys were not conducted in DAU 3A in 1997 or 1998. Due to intensive survey efforts in other units as part of the elk productivity study, personnel were not available to participate.

HARVEST CHARACTERISTICS

During 1998, 70 bears were reported harvested in DAU 3A (Table 24). Of these, 30% were females. Fifty-seven percent of the bears were harvested during the fall. Harvest criteria under the new plan indicate light harvest. Forty-five percent of the males were over 5+ years of age (Tables 25 and 26). Thirty-six percent of the harvest was by still hunters, 23% by incidental hunters, 7% by bait, and 2% by hound hunters (Tables 27). Ninety percent of the bears were harvested using a rifle (Table 28).

The black bear population data for DAU 3A a small proportion of the overall population was harvested. Age structures and harvest criteria indicated this population was in the best condition of any DAU in the region. Because harvest switched from spring still-hunting to fall incidental during 1996, it is likely an age structure shift downward would occur as a result.

DEPREDATIONS

Two depredations occurred in this DAU during 1998, about the same as prior years.

DOG TRAINING SEASON

No dog-training season occurred in DAU 3A during 1998. Hound hunting for bears was not popular in this DAU due to lack of roads and high probability of losing hounds.

MANAGEMENT IMPLICATIONS

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 Bear Management Plan allows for increased harvest.

Table 1. Summary of Seasons by Method for DAUs 1D, 1E, 1F, 2A, and 3A for 1 July 1997-30 June 1998.

Season Type ^{a,b}	DAU	Units	Season	
			Dates	Length
General, any legal weapon	1D ^{a,b}	8A, 10A	4/15-5/15	31
			9/15-10/31	47
General, any legal weapon	1E ^a	8, 11, 11A, 13	4/15-5/15	31
			9/15-10/31	47
General, any legal weapon	1F ^a	14, 15, 16, 18	4/15-5/15	31
			9/15-10/31	47
General, any legal weapon	2A	10, 12	4/15-6/30	77
			9/15-10/31	47
General, any legal weapon	3A	16A, 17, 19, 20	4/15-6/15	62
			9/15-10/31	47
Dog-training only	1D	8A, 10A	5/16-7/31	77
Dog-training	1F	14, 18, 15, 16	5/16-7/31	77
Dog-training	2A	10, 12	6/16-7/31	46

^a Unlawful to use dogs 4/15-4/30.

^b Bait prohibited.

Table 2. Bait station survey results for the Clearwater Region, DAUs 1D, 1E, 1F, 2A and 3A, 1993-1998.

Year	Survey Number	Survey Dates	Total Trans. Avail.	Total Trans. Sampled	Total Stations Sampled	Total Stations Visited By Bear	90% Confidence Interval % (+ /-)	
1993 ^a	10A ^b	6/21-2/26	15	15	75	5	6.7	4.7
	11 ^a	6/15-6/22	11	10	49	2	4.1	3.3
	12	6/16-6/21	17	17	84	3	3.6	3.3
	15, 16	6/16-6/21	16	16	80	5	6.3	3.3
	19, 20	6/16-6/23	12	8	40	0	0.0	-
Total			71	66	328	15	4.6	1.9
1994	10A ^{bc}	6/10-6/16	15	15	75	6	8.0	5.1
	11	6/9-6/15	10	10	50	1	2.0	3.2
	12	6/13-6/18	17	17	85	2	2.4	2.7
	15, 16	6/10-6/15	13	13	65	8	12.3	6.7
	19, 20	6/9-6/16	12	7	35	2	5.7	6.4
Total			67	62	310	19	6.1	2.2
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
Total			67	62	310	19	6.1	2.2
1996	8A, 10A	Not Surveyed						
	11	7/3-7/8	10	10	50	3	6.0	5.5
	10, 12	7/2-7/9	17	8	40	4	10.0	7.8
	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
Total			55	33	165	16	9.7	3.8
1997	11	7/9- 7/14	10	10	50	8	16.0	8.5
	10, 12		18	48	237	21	8.9	3.0
	15, 16		73	73	365	15	4.1	1.7
1997 ^d	10, 12	July-Aug	49	49	242	94	38.8	5.2
	15, 16		73	73	365	144	39.5	4.2
Total								
1998 ^d	10, 12	July-Aug	59	59	293	114	38.9	4.7
	15, 16		72	72	352	95	27.0	3.9

^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 3. Black bear harvest by season and sex of bear taken in DAU 1D^a, 1990-1998.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1990	41	20	61	13	22	36	54	42	96
1991	30	28	58	25	15	40	55	43	98
1992	46	34	81	28	14	42	74	48	122
1993	14	8	23	29	22	51	43	30	74
1994	21	10	31	23	22	45	44	32	76
1995	12	11	23	36	25	61	48	36	84
1996	17	15	32	44	32	76	61	47	108
1997	15	10	25	61	36	97	77	46	122
1995-97 Average	15	12	27	47	31	78	62	43	104
1998	28	8	36	45	58	103	73	66	139
Difference (%)	+ 86.7	-33	+ 33	-4.2	+ 87	+ 32	+ 18	+ 53	+ 33.7

^a Game Management Units 8A and 10A.

Table 4. Age distribution of black bear checked from DAU 1D^a, 1990-1998.

Age	<u>1990</u>		<u>1991</u>		<u>1992</u>		<u>1993</u>		<u>1994</u>		<u>1995</u>		<u>1996</u>		<u>1997</u>		<u>1998^b</u>	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cub	0	0	0	0	0	0	1	0	0	1	0	0	4	2	4	1	0	0
1	7	3	11	2	14	7	9	6	10	2	17	8	17	2	19	10	1	0
2	17	9	14	7	15	7	8	3	9	7	7	4	11	18	18	6	7	2
3	7	5	13	9	11	4	11	10	7	3	10	6	10	5	19	8	1	0
4	6	3	5	3	13	10	4	1	5	4	4	0	7	7	4	0	2	1
5	6	4	4	2	2	5	0	1	2	3	0	4	7	1	6	8	5	1
6	2	2	3	1	2	3	1	3	3	1	3	3	3	1	2	1	3	0
7	2	2	1	0	2	1	1	0	0	1	2	2	5	1	1	4	4	0
8	3	1	0	2	4	3	1	2	0	2	0	1	1	3	1	1	3	0
9	0	1	0	1	3	0	0	0	0	4	0	0	1	1	1	1	0	1
10+	0	9	1	13	6	8	5	3	3	2	4	6	1	2	0	5	2	3
Total	50	39	52	40	72	48	41	29	39	28	47	34	67	43	75	45	28	8

^a Game Management Units 8A and 10A.

^b Spring harvest only.

Table 5. Values of the 1992-2000 and 2000-2010 management plan criteria for DAU 1D, 1990-1998.

Year	N ^b	% Females	Median Age ^a			% Males ≥5	# Males ≥5+
			Males	Females	Total		
1990	96	*44	3	4	3	26.0	13
1991	98	*44	3	4	3	17.3	9
1992	122	*39	*3	*4	*3	26.4	19
1993	74	*41	*3	*3	*3	19.5	8
1994	76	*42	*3	*3	*3	20.5	8
1995	84	*43	2	*3	*3	19.1	9
1996	110	*39	3	*2	*3	24.6	16
1997	122	*38	2	*3	*3	14.9	11
1998 ^c	139	*47				60.7	17
Desired levels		≤35%	≥4	≥6	≥5	≥20	

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

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

^c Spring only age data.

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

Table 6. Method of harvest of black bear taken in DAU 1D^a, 1990-1998.

Year	Bait	Hound	Still	Incidental	Other	Total
1990	24	29	18	23	3	94
1991	38	16	11	30	1	96
1996	54	13	17	34	6	124
1993	6	21	15	31	1	74
1994	3	22	22	25	4	76
1995	0	29	17	36	1	83
1996	0	39	20	49	1	108
1997	0	46	15	61	0	122
1998	0	35	36	66	1	139

^a Units 8A and 10A.

Table 7. Weapon type used to harvest black bear in DAU 1D, 1990-1998^a.

Year	Rifle	Archery	Muzzleloader	Pistol	Other	Total
1990	76	13	0	7	1	97
1991	67	24	2	4	1	98
1992	95	17	1	3	6	122
1993	66	4	1	3	0	74
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

^a Units 8A and 10A.**Table 8.** Black bear depredation complaints handled in the Clearwater Region, 1990-1998.

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998
1D	1	2	3	0	0	3	1	5	9
1E	6	5	1	1	2	5	7	10	10
1F	1	1	6	2	1	0	7	2	17
2A	0	0	0	0	0	0	1	2	12
3A	0	0	0	0	0	0	1	1	2
Total	8	8	10	3	3	6	17	20	50

Table 9. Black bear harvest by season and sex of bear taken in DAU 1E^a, 1990-1998.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1990	18	9	27	20	10	30	38	19	57
1991	13	10	23	23	8	31	36	18	54
1992	17	6	23	14	11	25	31	17	48
1993	9	9	18	13	5	18	21	14	35
1994	11	9	20	22	14	36	33	23	56
1995	13	8	23	26	9	35	41	17	58
1996	13	11	24	21	21	42	42	24	66
1997	19	2	21	32	13	45	51	15	66
1995-97 Average	15	7	22.7	26.3	14.3	40.7	44.7	18.7	63.3
1998	18	8	26	32	18	50	50	26	76
Difference (%)	+ 20	+ 14.3	+ 14.5	+ 21.7	+ 25.9	+ 22.8	+ 11.8	+ 39	+ 20

^a Units 8A and 10A.

Table 10. Age distribution of black bear checked from DAU 1E^a, 1990-1998.

Age	1990		1991		1992		1993		1994		1995		1996		1997		1998 ^b	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cub	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	13	1	12	4	3	4	2	1	4	5	7	5	4	4	12	3	0	0
2	8	5	10	3	10	6	5	1	13	2	6	1	10	7	9	6	7	1
3	5	3	3	2	7	1	4	3	5	2	8	3	2	2	9	5	4	1
4	2	1	4	1	0	1	3	0	2	2	3	2	4	5	8	1	1	3
5	2	0	1	2	1	2	1	0	6	0	2	0	0	1	7	0	0	0
6	1	2	1	0	3	0	0	0	1	4	2	1	2	3	0	0	2	1
7	2	2	1	2	1	1	1	3	0	0	0	2	0	0	1	0	1	1
8	1	0	0	1	0	0	1	2	0	0	1	0	0	1	2	0	1	0
9	1	1	1	0	2	0	2	0	0	0	2	0	0	1	0	0	0	0
10+	0	3	2	4	1	2	0	4	6	1	5	1	2	3	0	0	2	1
Total	34	19	35	19	28	17	19	14	37	16	37	15	26	30	51	15	18	8

^a Game Management Units 8, 11, 11A, and 13.^b Spring harvest only.**Table 11.** Values of the 1992-2000 and 2000-2010 management plan criteria for DAU 1E, 1990-1998.

Year	N ^b	% Females	Median Age ^a			% Males ≥5	# Males ≥5
			Males	Females	Total		
1990	57	33	2	3	2	20.6	7
1991	54	33	2	4	2	17.1	6
1992	48	35	*3	*2	*2	28.6	8
1993	36	*40	*3	7	*4	26.3	5
1994	56	*41	*3	*3	*3	27.3	9
1995	58	29	*3	*3	*3	35.1	13
1996	61	49	*2	*3	*2	15.4	4
1997	66	23	*2	*2	2	19.6	10
1998 ^c	74	40				33.3	6
Desired levels		≤35	≥4	≥6	≥5		

^a Number of bears that were aged (excluding unknown).^b Number of bears that were sexed (excluding unknown)^c Spring only age data.

*Values do not meet criteria in 1992-2000 Black Bear Management Plan.

Table 12. Method of harvest of black bear taken in DAU 1E^a, 1990-1998.

Year	Bait	Hound	Still	Incidental	Other	Total
1990	13	10	9	22	1	55
1991	17	7	12	20	1	57
1996	13	10	12	10	0	45
1993	6	10	10	9	1	36
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

^a Units 8, 11, 11A, and 13.

Table 13. Weapon type used to harvest black bear in DAU 1E, 1990-1998.

Year	Rifle	Archery	Muzzleloader	Pistol	Other	Total
1990	43	10	0	3	1	57
1991	48	6	0	2	2	58
1992	36	6	0	3	3	48
1993	33	3	0	1	0	37
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

Table 14. Black bear harvest by season and sex of bear taken in 1F^a, 1990-1998.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1990	19	9	28	15	11	26	34	20	54
1991	26	18	44	22	9	31	48	27	75
1992	25	13	39	16	11	27	41	24	65
1993	5	7	12	23	10	33	28	17	45
1994	6	6	12	18	8	26	24	14	38
1995	7	4	11	27	8	35	34	12	46
1996	18	7	25	39	16	55	57	23	80
1997	27	3	30	37	16	53	64	19	83
1995-97 Average	17.3	4.7	22	34.3	13.3	47.7	51.7	18	69.7
1998	19	10	29	34	25	59	53	35	88
Difference(%)	+ 9.8	+ 112.7	+ 32	+ 0.8	+ 88	+ 23.7	+ 2.5	+ 94	+ 26.3

^a Game Management Units 14, 15, 16, 18.

Table 15. Age distribution of black bear checked from DAU 1F^a, 1990-1998.

Age	1990		1991		1992		1993		1994		1995		1996		1997		1998 ^b	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cub	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2	1	1	0
1	4	2	1	2	3	5	4	2	6	2	9	2	11	1	13	1	0	0
2	6	2	11	2	8	2	10	1	7	2	3	2	15	7	12	3	4	3
3	2	4	16	6	8	4	3	1	3	1	8	2	13	2	12	7	3	0
4	14	0	8	2	7	3	4	0	2	1	3	2	7	2	7	1	3	3
5	1	2	0	1	4	1	1	1	1	1	3	2	3	3	9	1	2	0
6	0	1	1	2	2	1	0	0	2	1	0	1	1	0	2	1	1	2
7	0	2	1	1	3	1	1	0	1	1	0	0	3	1	0	0	2	0
8	0	1	3	0	2	1	1	1	0	0	0	0	0	0	1	0	0	0
9	1	0	0	2	2	1	2	2	0	1	0	0	0	0	2	2	1	2
10+	6	3	5	7	1	3	1	8	1	3	1	0	4	4	4	2	2	0
Total	34	17	46	25	40	22	28	16	23	13	27	11	58	20	64	19	19	10

^a Game Management Units 14, 15, 16, and 18.

^b Spring harvest only.

Table 16. Values of the 1992-2000 and 2000-2010 management plan criteria for DAU 1F, 1990-1998.

Year	N ^b	% Females	Median Age ^a			% Males ≥5	% Males ≥5
			Males	Females	Total		
1990	54	37	4	5	4	23.5	8
1991	75	36	3	5	3	21.7	10
1992	65	*37	4	3	3	35	14
1993	45	*38	*2	9	*3	21.4	6
1994	38	*37	*2	*5	*3	21.7	5
1995	46	26	*3	*3	*3	14.8	4
1996	80	29	*3	*3	*3	19.0	11
1997	83	23	*3	*3	*3	28.1	18
1998 ^c	89	*40				42.1	8
Desired levels		≤35%	≥4	≥6	≥5	≥20	

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

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

^c Spring only age data.

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

Table 17. Method of harvest of black bear taken in DAU 1F^a, 1990-1998.

Year	Bait	Hound	Still	Incidental	Other	Total
1990	10	17	16	9	0	52
1991	22	18	23	9	1	73
1996	20	16	15	12	0	63
1993	4	17	16	6	2	45
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

^a Units 14, 15, 16, and 18.

Table 18. Weapon type used to harvest black bear in DAU 1F^a, 1990-1998.

Year	Rifle	Archery	Muzzleloader	Pistol	Other	Total
1990	44	5	1	2	2	55
1991	66	4	1	3	1	75
1992	49	8	1	6	2	66
1993	40	4	0	1	0	45
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

^a Units 14, 15, 16, and 18.

Table 19. Black bear harvest by season and sex of bear taken in DAU 2A^a, 1990-1998.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1990	91	54	145	33	16	52	124	70	194
1991	108	46	156	12	12	24	120	58	178
1992	66	17	83	36	11	47	102	28	130
1993	55	27	82	15	11	26	70	38	108
1994	56	20	76	14	8	22	70	28	98
1995	62	25	87	12	9	21	74	34	108
1996	82	24	106	28	7	35	110	31	141
1997	68	22	90	23	7	30	91	29	120
1995-97 Average	70.7	23.7	94.3	21	7.7	28.7	91.7	31.3	123
1998	140	73	213	50	28	78	190	101	291
Difference (%)	+ 98	+ 208	+ 112.9	+ 125.9	+ 206.4	+ 172	+ 107.2	+ 222.7	+ 136.7

^a Game Management Units 10 and 12.

Table 20. Age distribution of black bear checked from DAU 2A^a, 1990-1998.

Age	1990		1991		1992		1993		1994		1995		1996		1997		1998 ^b	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cub	0	0	0	0	0	0	0	0	0	0	0	1	2	0	5	1	12	14
1	11	2	6	4	7	3	5	1	7	1	2	1	7	2	4	2	5	3
2	40	11	20	7	26	6	3	6	11	6	6	3	22	7	15	5	16	5
3	7	3	30	5	17	5	13	7	10	4	23	10	12	3	32	7	31	12
4	10	4	14	9	20	2	8	5	12	4	10	3	20	2	7	0	22	6
5	14	9	13	2	9	3	9	8	9	3	7	6	13	4	6	1	15	7
6	10	2	4	3	8	3	3	2	8	2	5	1	6	3	3	1	9	3
7	7	8	5	1	4	2	5	1	1	1	5	2	5	3	5	1	4	4
8	1	4	6	2	1	0	3	2	3	0	4	2	10	0	3	2	6	2
9	2	1	2	3	0	0	4	1	3	0	1	0	1	2	4	3	4	4
10+	12	11	11	15	9	1	12	6	4	5	7	3	7	4	7	6	16	11
Total	114	55	111	58	101	25	65	39	68	23	70	32	105	30	91	29	140	71

^a Game Management Units 10 and 12.^b Spring ages only.**Table 21.** Values of the 1992-2000 and 2000-2010 management plans criteria for DAU 2A, 1990-1998.

Year	N ^a	% Females	Median Age ^b			Males % ≥5	# Males ≥5
			Males	Females	Total		
1990	194	36	3	5	4	40.4	46
1991	178	33	3	4	4	36.9	41
1992	130	22	4	*3	*3	30.1	31
1993 ^b	108	35	4	*5	5	55.4	36
1994	98	29	4	*4	*4	41.2	28
1995	108	31	4	*4	*4	41.4	29
1996	135	22	4	*5	*4	40.0	42
1997	120	24	3	*3	*3	30.8	28
1998 ^c	291	35				27.8	54
Desired levels		≤35	≥4	≥6	≥5	≥25%	

^a Number of bears that were sexed (exclude unknowns).^b Number of bears that were aged (exclude unknowns).^c Spring hunt ages only.

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

Table 22. Method of harvest of black bear taken in DAU 2A^a, 1990-1998.

Year	Bait	Hound	Still	Incidental	Other	Total
1990	64	45	44	38	1	192
1991	78	39	34	28	0	179
1992	53	17	22	29	1	122
1993	38	14	29	27	1	109
1994	23	9	17	15	2	65
1995	56	11	18	22	0	107
1996	69	18	30	26	1	139
1997	65	11	24	18	2	120
1998	150	41	43	53	4	291

^a Units 10 and 12.**Table 23.** Weapon type used to harvest black bear in DAU 2A^a, 1990-1998.

Year	Rifle	Archery	Muzzleloader	Pistol	Other	Total
1990	149	31	1	11	5	197
1991	137	31	1	8	4	181
1992	85	31	0	7	10	133
1993	81	22	0	8	1	112
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

^a Units 10 and 12.**Table 24.** Black bear harvest by season and sex of bear taken in DAU 3A^a, 1990-1998.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1990	22	8	30	29	16	45	51	24	75
1991	28	19	47	20	7	29	48	26	74
1992	31	20	51	27	3	30	58	23	81
1993	16	13	29	27	11	38	43	24	67
1994	27	4	31	11	10	21	38	14	52
1995	31	10	41	16	7	23	47	17	64
1996	19	6	25	29	14	43	48	20	68
1997	17	25	22	17	7	24	34	12	46
1995-97 Average	22.3	7	29.3	20.7	9.3	30	43	16.3	59.3
1998	29	8	37	20	13	33	49	21	70
Difference (%)	+ 30	+ 14	+ 26.3	-3	+ 39.8	+ 10	+ 14	+ 28.8	+ 18

^a Game Management Units 16A, 17, 19 and 20.

Table 25. Age distribution of black bear checked from DAU 3A^a, 1990-1998.

Age	1990		1991		1992		1993		1994		1995		1996		1997		1998 ^b	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cub	0	0	0	0	0	0	1	1	0	0	0	0	3	0	2	1	2	0
1	1	0	5	2	2	0	1	1	3	4	1	0	5	0	2	0	5	0
2	10	4	8	2	9	2	2	1	11	0	7	3	10	4	5	2	3	1
3	5	3	8	4	13	3	4	6	1	0	9	1	7	1	7	3	4	1
4	7	1	3	2	9	4	6	1	3	2	4	1	5	2	3	4	6	1
5	3	2	4	4	4	2	8	1	3	2	3	0	1	0	3	0	5	2
6	3	0	5	2	3	2	0	0	3	1	6	1	1	0	0	0	0	1
7	7	2	1	1	3	3	3	1	2	0	1	1	2	2	2	0	1	0
8	0	1	8	1	4	1	1	1	2	1	1	3	0	3	0	0	0	0
9	1	0	0	1	3	0	1	0	2	1	1	1	0	2	2	2	2	0
10+	6	6	3	6	1	5	7	8	6	3	8	4	8	2	7	0	5	2
Total	43	19	45	25	51	22	41	21	33	12	41	15	42	16	33	12	33	8

^a Game Management Units 16A, 17, 19 and 20.^b Spring age only.**Table 26.** Values of the 1992-2000 and 2000-2010 management plans criteria for DAU 3A, 1990-1998.

Year	N ^a	% Females	Median Age ^b			% Males ≥5	# Males ≥5
			Males	Females	Total		
1990	75	32	4	*5	*4	46.5	20
1991	74	35	4	*5	5	46.7	21
1992	81	28	4	*5	*4	35.3	18
1993 ^b	67	36	4	*5	*4	48.8	20
1994	52	27	5	*5	5	54.5	18
1995	64	27	4	8	5	48.8	20
1996	68	29	*3	7	*3	28.6	12
1997	46	26	4	*3	*4	42.4	14
1998 ^c	70	30				44.8	13
Desired levels		≤35	≥4	≥6	≥5	≥30	

^a Number of bears that were sexed (exclude unknowns)^b Number of bears that were aged (exclude unknowns).^c Spring only age data

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan

Table 27. Method of harvest of black bear taken in DAU 3A^a, 1990-1998.

Year	Bait	Hound	Still	Incidental	Other	Total
1990	10	6	34	23	2	75
1991	6	5	38	29	0	78
1992	15	12	23	21	1	71
1993	4	3	30	25	0	62
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	69

^a Units 16A, 17, 19 and 20.

Table 28. Weapon type used to harvest black bear in DAU 3A^a, 1990-1998.

Year	Rifle	Archery	Muzzleloader	Pistol	Other	Total
1990	67	5	0	3	0	75
1991	67	4	1	4	0	76
1992	69	0	1	6	0	76
1993	58	1	2	4	0	65
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

^a Units 16A, 17, 19 and 20.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE: Idaho **JOB TITLE:** Black Bear Surveys and Inventories
PROJECT: W-170-R-23
SUBPROJECT: 3 **STUDY NAME:** Big Game Population Status,
STUDY: I Trends, Utilization and Associated
JOB: 9 Habitat Studies
PERIOD COVERED: July 1, 1998 to June 30, 1999

BLACK BEAR - SOUTHWEST REGION

ABSTRACT

Area 1: 362 black bears were reported harvested in Area 1 of the Southwest Region in 1998. Bait station survey results were higher than previous years in DAU 1H in 1999. Reported harvest was 103, 66, and 193 black bears for DAUs 1G, 1H, and 1K, respectively. The reported harvest remained static in DAU 1G and increased 27% in DAU 1H. DAU 1K harvest increased 47% in 1998. Black bear age data for the 1998 hunting season was not available during this reporting period. Data indicate percent females in the harvest criteria are not being met in DAU 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. Still hunting and incidental harvests comprised most of the black bear kill in DAU 1K in 1998. Season restrictions reflecting more conservative harvest strategies were incorporated into the 1992-2000 Black Bear Species Management Plan. These changes took effect in 1993, the 1998 harvest results reflect the sixth year of monitoring the effects of these changes on black bear populations. Data for DAU 1G indicate the harvest parameters are stable. Spring permit levels were increased in 1998 in DAU 1H. Harvest data for DAU 1K indicate that the season changes implemented in 1993 have lost their effectiveness for improving harvest criteria and the elimination of the fall split season in 1998 contributed to a significant increase in bear harvest.

Area 3: 29 black bears were reported harvested in Area 3 of the Southwest Region in 1998. The percent females in the harvest management criteria was within desired levels. Harvest incidental to hunting other big game species 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 1

DAU 1G (GMUS 19A, 23, 24, AND 25)

DAU 1H (GMUS 22, 31, 32, AND 32A)

DAU 1K (GMUS 33, 39, AND 43)

MANAGEMENT DIRECTION

Area 1 contains 12 data analysis units (DAU). 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 1 to maintain or reduce harvest, improve age structure, and offer a variety of hunting opportunities. This included high-quality controlled hunts in DAU 1H. Dog training seasons would open the day after the spring harvest season closed and continue until July 31 in the DAUs that have a dog training season.

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. The criteria that were used to monitor black bear harvest in DAUs included:

<u>Criteria Measurement</u>	<u>Overharvest Indicator</u>	<u>Desired Level</u>
Percent Females	≥ 40%	≤ 35%
Median Age	≤ 3 years	≥ 5 years
Males	≤ 2 years	≥ 4 years
Females	≤ 4 years	≥ 6 years
Bait Station Survey	Declining	Stable or Increasing

New, simpler criteria were developed in the recently drafted 2000-2010 Black Bear Species Management Plan, and take effect beginning with the 1999 fall hunting season. These harvest criteria are the three-year running average of percent females and percent males five years or older. Bait station survey trends will also be considered when assessing population status. Harvest rates will be categorized as light, moderate, and heavy (Table 1).

DAUs 1G and 1K are designated as moderate harvest rates. 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 1 were restricted in 1983 following implementation of the 1981-1985 Black Bear Management Plan. Area 1 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. 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 seasons (Table 2).

POPULATION SURVEYS

Bait station surveys were conducted between July 1 and July 6, 1999, to monitor black bear population trends in the Middle Fork and Little Weiser River drainages of DAU 1H. Thirty-nine percent of the stations (31 out of 80) were visited by black bear. The 1999 visitation rate was higher than that documented in 1998 (Table 3). This higher rate could be twofold: a birth pulse of yearling bears may be present as indicated by smaller teeth marks in cans, or the week longer that 19 of the cans were left in the woods due to logistics may have inflated the estimate.

HARVEST CHARACTERISTICS

Reported harvest in DAU 1G remained static in 1998 when compared to 1996 totals (Table 4). The black bear harvest in this DAU was greater in the fall than in the spring in 1998. Black bear age data were unavailable for the 1998 hunting season during this reporting period (Table 5). Percent females in the harvest was within acceptable limits (Table 6). There was adequate distribution of harvest among user groups in DAU 1G in 1998 (Table 7). The rifle is the most prominent weapon of choice for harvesting black bear in DAU 1G (Table 8).

Reported harvest increased 27% in 1998 compared to 1997 in DAU 1H (Table 9). The black bear harvest was the same in the fall as in the spring in 1998. Black bear age data were unavailable for the 1998 hunting season during this reporting period (Table 10). A slight increase occurred for the percent females in the harvest criteria (Table 11). Still and hound hunting methods are the dominant means of harvest in DAU 1H (Table 12). The rifle is the most used weapon of choice (Table 13).

Reported harvest increased 47% in 1998 when compared to 1997 totals in DAU 1K (Table 14). More bears were harvested in the fall than in the spring in DAU 1K in 1998. Black bear age data were unavailable for the 1998 hunting season during this reporting period (Table 15). The percent females in the harvest increased slightly in 1998 from 1997 totals and are outside of acceptable levels (Table 16). Still and incidental hunting methods comprised most of the black bear kill in DAU 1K in 1998 (Table 17). Rifle was the most reported weapon of choice in DAU 1K (Table 18).

DEPREDACTIONS

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. Depredation reports were higher in 1998 than for 1997 (Table 19).

MANAGEMENT IMPLICATIONS

Harvest restrictions can be recommended for a DAU when harvest criteria indicate black bear populations are overharvested or do not meet desired management levels for a viable, self-sustaining population. Prior to 1993 harvest data from DAUs 1G, 1H, and 1K indicated that these areas received heavy exploitation, which resulted in population parameters below desired management levels. Conservative harvest strategies were developed for these areas, with careful consideration for maintaining a diversity of hunting methods. These strategies were incorporated into the 1992-2000 Black Bear Management Plan and implemented with the beginning of the 1993 black bear harvest season. The 1998 hunting season was the sixth year that these changes were monitored to assess their impact on black bear harvest in DAUs 1G, 1H, and 1K. DAUs 1G and 1K appeared to be within or near acceptable harvest levels. As a result the first two weeks of October were added back into the season to eliminate the split that caused confusion and regulation complication for sportsmen. This did not increase harvest in DAU 1G, but did contribute to a significant increase in fall harvest in DAU 1K. The percent female parameter in DAU 1K now lies outside of acceptable limits. If this trend is maintained over the long term, the bear population can be expected to decline significantly.

Harvest parameters in DAU 1H showed a trend toward too many female bears in the harvest. This did not seem logical under a conservative controlled hunt strategy; however, most 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 bears; hence, spring permits were increased in 1998 to attempt to skew the sex ratio of the harvest further toward male bears. The initial year of implementing this strategy has not yielded the most promising results. Further monitoring will be necessary to determine if this strategy will work. It may turn out that the controlled hunt area is too small to protect the wider ranging male bears, and a harvest rate of 30% or greater females may be the norm for a lightly hunted population under these conditions.

AREA 3

DAU 3B (GMUS 20A, 26 AND 27)

MANAGEMENT DIRECTION

Area 3 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 3 black bear populations to maintain moderate harvest targets of 25-35% age 5+ 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 3.

Harvest in Area 3 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 judgement will be used when average annual harvest is less than 30 black bears.

BACKGROUND

A large portion of DAU 3B is roadless, lying within wilderness boundaries. Except for a few mining roads penetrating the periphery, access in these units is restricted to airplane, packstring, 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. The current season structure was formed when the spring season was shortened to conform with statewide management direction listed in the 1992-2000 Black Bear Management Plan (Table 20). The fall and spring seasons will be expanded with implementation of the 2000-2010 Black Bear Plan in fall 1999.

POPULATION SURVEYS

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

HARVEST CHARACTERISTICS

Reported harvest increased 20% in 1998 compared to 1997 for DAU 3B (Table 21). The black bear harvest in DAU 3B was almost evenly split between the fall and spring seasons. Black bear age data were unavailable for the 1998 hunting season during this reporting period (Table 22). Percent females in the harvest decreased in 1998 (Table 23). Still hunting (stalking) and harvest incidental to other species hunting are the primary methods of harvest in this DAU (Table 24). The prominent weapon of choice in DAU 3B is the rifle (Table 25).

DEPREDATIONS

No depredations were reported in DAU 3B in 1998.

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. These changes took effect with the beginning of the 1993 black bear harvest season. More minor changes to season structure were adopted for the fall 1999 hunting season in accordance with the new 2000-2010 Black Bear Management Plan. The Department will continue to monitor the harvest criteria for DAU 3B to assess the effects of the season changes on black bear populations.

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 Seasons by Method for DAUs 1G, 1H, and 1K, July 1 1998- June 30 1999.

Season Type ^a	DAU	Units	Season	
			Dates	Length
General, any legal weapon	1G	19A	9/15-10/31	47
			4/15-6/15	62
		23, 24, 25	9/15-10/31	47
			4/15-5/31	47
General, any legal weapon	1K	33, 39, 43	9/15-10/31	47
			4/15-5/22	38
Dog-training only	1G	19A	6/16-7/31	46
		23, 24, 25	6/1-7/31	61
Dog-training only	1H	22, 31, 32, 32A	5/16-7/31	77
Dog-training only	1K	33, 39, 43	5/23-7/31	70
Controlled, any legal weapon ^b	1H	822-1 ^c , 832-1 ^d	9/1-9/30	30
		822-2 ^e , 832-2 ^f	4/15-5/15	31

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

^b Bait prohibited.

^c All of Units 22 and 31; 30 permits.

^d All of Units 32 and 32A; 30 permits.

^e All of Units 22 and 31; 50 permits; dogs prohibited.

^f All of Units 32 and 32A; 50 permits; dogs prohibited.

Table 3. Bait station survey results from Council routes (DAU 1H), 1985-1999.

Year	Survey Number	Survey Dates	Total Trans. Avail.	Total Trans. Sampled	Total Stations Sampled	Total Stations Visited By Bear	%	90% Confidence Interval (+ /-)
1985	1	6/23-6/28	17	17	85	26	31	7.7
	2	7/02-7/07	17	16	80	31	39	8.4
1986	1	6/27-7/02	17	16	80	32	40	8.8
	2	7/10-7/15	17	16	80	26	33	8.3
1987	1	6/19-6/24	17	17	85	48	56	8.1
	2	7/02-7/07	17	17	85	32	38	8.1
1988	1	6/30-7/05	17	17	85	39	46	8.4
1989	1	6/30-7/05	17	17	85	35	41	8.1
1990	1	6/27-7/02	17	17	85	24	28	7.7
1991	1	6/26-7/01	17	17	85	18	21	7.1
1992	1	6/24-6/29	17	17	85	25	29	7.3
1993	1	6/25-6/30	17	17	85	16	19	7.0
1994	1	6/30-7/05	17	17	85	15	18	6.7
1995	1	6/22-6/27	17	17	85	13	15	6.5
1996	1	6/27-7/02	17	17	85	30	35	8.4
1997	1	6/26-7/01	16	16	80	14	18	7.0
1998	1	7/05-7/13	17	17	85	19	22	7.4
1999	1	7/01-7/06 ^a	16	16	80	31	39	10.0

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

Table 4. Black bear harvest by season and sex of bear taken in DAU 1G^a, 1983-1998.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1983	28	14	42	7	6	13	35	20	55
1984	40	24	64	26	17	43	66	41	107
1985	25	26	51	26	14	40	51	40	91
1986	29	10	39	9	5	14	38	15	53
1987	28	7	35	25	12	37	53	19	72
1988	24	5	29	23	12	35	47	17	64
1989	29	17	46	23	13	36	52	30	82
1990	39	19	58	41	22	63	80	41	121
1991	27	13	40	38	21	59	65	34	99
1992	24	10	34	18	11	29	42	21	63
1993	30	5	35	30	18	48	60	23	83
1994	22	10	32	18	12	30	40	22	62
1995	33	12	45	34	25	59	67	37	104
1996	39	17	56	37	22	59	76	39	115
1997	27	11	38	37	27	64	64	38	102
1995-1997 Average	33	13	46	36	25	61	69	38	107
1998	38	10	48	36	19	55	74	29	103
Difference	+ 5	-3	+ 2	0	-6	-6	+ 5	-9	-4

^a Game Management Units 19A, 23, 24, and 25.

Table 5. Age distribution of black bear checked from DAU 1G^a, 1990-1998.

Age	1990		1991		1992		1993		1994		1995		1996		1997		1998 ^b	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unk.	21	11	13	2	3	2	7	7	6	6	2	2	11	13	4	5	74	29
Cub	1	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	ND	ND
1	8	2	5	2	4	1	7	2	4	0	7	5	1	0	7	1	ND	ND
2	11	2	13	3	7	3	7	3	14	6	11	7	18	5	6	5	ND	ND
3	9	3	10	2	10	4	7	2	2	2	18	6	8	2	18	8	ND	ND
4	6	5	4	3	5	2	11	2	5	1	2	1	15	3	6	1	ND	ND
5	5	6	4	1	1	3	4	1	5	2	4	1	1	0	7	4	ND	ND
6	7	3	3	4	2	0	4	1	2	3	6	3	6	1	2	1	ND	ND
7	4	4	5	4	0	1	3	1	1	0	6	4	5	3	2	2	ND	ND
8	1	1	2	5	2	2	1	0	1	0	0	1	1	1	1	1	ND	ND
9	3	1	0	2	1	1	1	0	0	0	3	2	0	1	2	2	ND	ND
10+	4	2	6	6	7	2	7	4	0	2	7	5	10	10	9	8	ND	ND
Total	80	41	65	34	42	21	60	23	40	22	67	37	76	39	64	38	74	29

^a Game Management Units 19A, 23, 24, and 25.^b ND = no data, ages not available at time of reporting.

Table 6. Values of the 1992-2000 and 2000-2010 management plan criteria for DAU 1G^a, 1990-1998.

Year	N ^b	% Females	Median Age			% Males ≥5	# Males	N ^c
			Males	Females	Total			
1990	121	34	4	5	4	37	80	89
1991	99	34	3	7	4	38	65	84
1992	63	33	3	4	4	33	42	59
1993	83	28	4	4	4	38	60	69
1994	62	35	2	3	3	26	40	50
1995	104	36	3	3	3	40	67	100
1996	115	34	4	7	4	35	76	91
1997	102	37	3	5	4	38	64	93
1998	103	28	ND	ND	ND	ND	74	ND
1996-1998 Average		33	ND	ND	ND	ND		
Desired levels		30-40%	≥4	≥6	≥5	25-35%		

^a Game Management Units 19A, 23, 24, and 25.

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

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

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

Table 7. Method of harvest of black bear taken in DAU 1G^a, 1987-1998.

Year	<u>Bait</u>		<u>Hound</u>		<u>Still</u>		<u>Incidental</u>		<u>Other</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	12	2	15	6	13	8	11	2	2	1	53	19
1988	15	1	11	7	5	1	14	7	2	1	47	17
1989	13	8	15	7	7	3	11	11	6	1	52	30
1990	15	8	22	9	20	13	16	10	7	1	80	41
1991	13	5	12	7	18	10	18	12	4	0	65	34
1992	7	4	11	6	14	4	8	4	2	3	42	21
1993	6	1	11	9	20	4	21	8	2	1	60	23
1994	12	3	5	2	11	9	11	7	1	1	40	22
1995	14	3	14	7	23	14	16	12	0	1	67	37
1996	9	3	15	3	34	18	18	13	0	2	76	39
1997	21	5	13	4	7	12	19	17	4	0	64	38
1998	22	0	12	6	17	4	20	18	3	1	74	29

^a Units 19A, 23, 24, and 25.

Table 8. Weapon type used to harvest black bear in DAU 1G^a, 1987-1998.

Year	<u>Rifle</u>		<u>Archery</u>		<u>Muzzleloader</u>		<u>Pistol</u>		<u>Other</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	33	12	11	5	0	0	7	2	2	0	53	19
1988	30	12	12	1	1	0	3	4	1	0	47	17
1989	37	21	8	5	2	1	2	2	3	1	52	30
1990	55	22	15	14	0	0	6	4	4	1	80	41
1991	51	23	9	8	1	0	0	3	3	0	65	34
1992	29	14	9	5	0	0	2	1	2	1	42	21
1993	48	18	7	3	0	0	4	2	1	0	60	23
1994	32	20	6	1	0	0	1	0	1	1	40	22
1995	60	34	3	2	1	0	3	0	0	1	67	37
1996	62	32	10	6	1	0	3	1	0	0	76	39
1997	50	35	8	3	3	0	2	0	1	0	64	38
1998	65	27	7	1	0	0	2	1	0	0	74	29

^a Units 19A, 23, 24, and 25.**Table 9.** Black bear harvest by season and sex of bear taken in DAU 1H^a, 1983-1998.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1983	3	0	3	22	10	32	25	10	35
1984	2	2	4	16	12	28	18	14	32
1985	7	3	10	16	17	33	23	20	43
1986	9	2	11	8	3	11	17	5	22
1987	8	4	12	21	18	39	29	22	51
1988	12	6	18	23	26	49	35	32	67
1989	16	15	31	30	22	52	46	37	83
1990	11	6	17	24	18	42	35	24	59
1991	15	7	22	24	9	33	39	16	55
1992	9	17	26	20	19	39	29	36	65
1993	5	3	8	10	5	15	15	8	23
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
1995-1997	12	3	15	14	8	22	26	11	37
Average									
1998	23	10	33	21	12	33	44	22	66
Difference	+ 11	+ 7	+ 18	+ 7	+ 4	+ 11	+ 18	+ 11	+ 29

^a Units 22, 31, 32, and 32A.

Table 10. Age distribution of black bear checked from DAU 1H^a, 1990-1998.

Age	1990		1991		1992		1993		1994		1995		1996		1997		1998 ^b	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unk.	7	5	3	1	7	5	3	1	2	1	5	1	3	4	5	1	44	22
Cub	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	ND	ND
1	9	4	8	2	5	3	3	0	2	1	3	1	2	0	5	1	ND	ND
2	10	4	7	2	7	6	2	1	5	1	1	3	10	4	7	0	ND	ND
3	2	1	7	1	2	4	5	1	1	2	2	2	2	0	7	2	ND	ND
4	2	4	3	1	1	2	1	1	1	1	3	1	1	0	4	2	ND	ND
5	0	2	2	1	0	3	0	2	1	0	3	0	0	0	0	1	ND	ND
6	1	1	4	2	1	6	1	0	0	2	0	1	1	0	4	2	ND	ND
7	0	1	0	3	1	1	0	0	0	0	0	1	1	0	2	0	ND	ND
8	1	0	1	1	2	0	0	0	1	0	0	0	0	0	2	1	ND	ND
9	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	1	ND	ND
10+	3	1	3	2	3	6	0	1	0	1	0	1	2	1	1	3	ND	ND
Total	35	24	39	16	29	36	15	8	14	10	18	11	22	10	38	14	44	22

^a Game Management Units 22, 31, 32, and 32A.

^b ND = no data, ages not available at time of reporting.

Table 11. Values of the 1992-2000 and 2000-2010 management plan criteria for DAU 1H^a, 1990-1998.

Year	N ^b	% Females	Median Age			% Males ≥5	# Males	N ^c
			Males	Females	Total			
1990	59	41	2	3	2	18	35	47
1991	55	29	3	6	3	28	39	51
1992	65	55	2	5	3	32	29	53
1993	23	35	3	5	3	8	15	19
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	ND	ND	ND	ND	44	ND
1996-1998 Avg.		30	ND	ND	ND	ND		
Desired levels		≤30%	≥4	≥6	≥5	≥35%		

^a Game Management Units 22, 31, 32, and 32A

^b Number of bears that were sexed.

^c Number of bears that were aged.

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

Table 12. Method of harvest of black bear taken in DAU 1H^a, 1987-1998.

Year	<u>Bait</u>		<u>Hound</u>		<u>Still</u>		<u>Incidental</u>		<u>Other</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	0	0	6	1	16	11	7	9	0	1	29	22
1988	1	0	6	12	18	11	9	7	1	2	35	32
1989	3	3	4	12	18	9	20	10	1	3	46	37
1990	2	0	4	6	20	6	8	11	1	1	35	24
1991	1	0	4	2	22	5	10	8	2	1	39	16
1996	0	0	2	4	13	21	12	9	2	2	29	36
1993	0	0	6	2	5	3	3	1	1	2	15	8
1994	1	0	4	4	8	5	0	1	1	0	14	10
1995	0	0	6	6	12	4	0	1	0	0	18	11
1996	0	0	4	5	17	4	0	0	1	1	22	10
1997	0	1	11	6	24	6	1	1	2	0	38	14
1998	0	0	17	8	21	11	5	2	1	1	44	22

^a Units 22, 31, 32, and 32A.**Table 13.** Weapon type used to harvest black bear in DAU 1H^a, 1987-1998.

Year	<u>Rifle</u>		<u>Archery</u>		<u>Muzzleloader</u>		<u>Pistol</u>		<u>Other</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	26	20	0	0	0	0	3	2	0	0	29	22
1988	29	27	3	1	0	0	2	4	1	0	35	32
1989	41	26	2	4	0	0	3	6	0	1	46	37
1990	30	20	2	0	0	1	3	1	0	1	35	24
1991	34	14	1	1	2	0	2	1	0	0	39	16
1992	26	32	1	1	0	0	0	2	2	1	29	36
1993	11	3	1	1	1	0	1	2	1	2	15	8
1994	14	8	0	0	0	0	0	2	0	0	14	10
1995	18	8	0	1	0	0	0	1	0	1	18	11
1996	19	8	2	1	0	0	0	0	1	1	22	10
1997	36	10	2	2	0	0	0	2	0	0	38	14
1998	41	19	3	3	0	0	0	0	0	0	44	22

^a Game Management Units 22, 31, 32, and 32A.

Table 14. Black bear harvest by season and sex of bear taken in 1K^a, 1983-1998.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1983	29	10	39	13	5	18	42	15	57
1984	28	21	49	14	2	16	42	23	65
1985	45	23	68	14	20	34	59	43	102
1986	41	26	67	17	6	23	58	32	90
1987	25	15	40	21	9	30	46	24	70
1988	51	30	81	26	24	50	77	54	131
1989	80	28	108	46	25	71	126	53	179
1990	60	36	96	78	47	125	138	83	221
1991	56	33	89	22	16	38	78	49	127
1992	34	11	45	10	10	20	44	21	65
1993	26	12	38	27	11	38	53	23	76
1994	35	21	56	41	20	61	76	41	117
1995	52	21	73	47	36	83	99	57	156
1996	45	32	77	31	19	50	76	51	127
1997	34	23	57	41	33	74	75	56	131
1995-97 Avg.	44	25	69	40	29	69	84	54	138
1998	39	24	63	74	56	130	113	80	193
Difference(%)	-5	-1	-6	+ 34	+ 27	+ 61	+ 29	+ 26	+ 55

^a Game Management Units 33, 39, and 43.

Table 15. Age distribution of black bear checked from DAU 1K^a, 1990-1998.

Age	1990		1991		1992		1993		1994		1995		1996		1997		1998 ^b	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unk.	39	22	12	6	7	4	5	8	12	8	11	10	6	7	5	6	113	80
Cub	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	ND	ND
1	22	13	9	2	2	2	13	1	8	0	14	10	8	4	10	3	ND	ND
2	12	9	12	8	5	1	5	2	23	12	12	3	25	14	8	9	ND	ND
3	21	15	6	3	5	8	1	2	4	2	32	14	6	8	25	12	ND	ND
4	8	5	12	6	11	1	11	2	6	1	5	3	14	6	2	2	ND	ND
5	10	4	6	5	4	0	5	0	3	8	3	1	2	2	13	4	ND	ND
6	4	0	9	4	1	0	2	1	8	3	9	6	3	0	3	1	ND	ND
7	6	6	3	2	2	3	5	2	5	0	3	1	2	2	1	3	ND	ND
8	3	4	3	2	1	0	2	0	0	0	3	2	3	1	4	4	ND	ND
9	1	0	3	2	1	1	1	1	2	2	4	1	1	1	0	3	ND	ND
10+	12	4	3	9	5	1	3	4	4	5	3	6	6	6	4	9	ND	ND
Total	138	83	78	49	44	21	53	23	76	41	99	57	76	51	75	56	113	80

^a Game Management Units 33, 39, and 43.

^b ND = no data, ages not available at time of reporting.

Table 16. Values of the 1992-2000 and 2000-2010 management plan criteria for DAU 1K^a, 1990-1998.

Year	N ^b	% Females	Median Age			% Males ≥5	# Males	N ^c
			Males	Females	Total			
1990	221	38	3	3	3	36	138	160
1991	127	39	4	5	4	41	78	109
1992	65	32	4	3	4	38	44	54
1993	76	30	4	6	4	38	53	63
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	ND	ND	ND	ND	113	ND
1996-1998 Avg.		41*	ND	ND	ND	ND		
Desired levels		30-40%	≥4	≥6	≥5	25-35%		

^a Game Management Units 33, 39, and 43.

^b Number of bears that were sexed.

^c Number of bears that were aged.

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

Table 17. Method of harvest of black bear taken in DAU 1K^a, 1987-1998.

Year	Bait		Hound		Still		Incidental		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	17	8	4	4	14	5	8	6	3	1	46	24
1988	30	11	14	14	14	12	16	15	3	2	77	54
1989	41	18	28	8	24	8	21	14	12	5	126	53
1990	22	15	30	13	40	31	35	17	11	7	138	83
1991	21	14	9	9	30	13	14	10	4	3	78	49
1996	16	5	10	1	11	7	6	7	1	1	44	21
1993	13	4	8	5	12	3	19	8	1	3	53	23
1994	16	12	15	2	17	14	24	13	4	0	76	41
1995	24	10	16	6	35	20	21	20	3	1	99	57
1996	18	16	9	9	21	16	27	9	1	1	76	51
1997	20	9	9	7	20	18	26	21	0	1	75	56
1998	19	11	13	10	35	26	43	32	3	1	113	80

^a Game Management Units 33, 39, and 43.

Table 18. Weapon type used to harvest black bear in DAU 1K^a, 1987-1998.

Year	Rifle		Archery		Muzzleloader		Pistol		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	33	16	10	5	0	0	3	3	0	0	46	24
1988	37	37	21	10	3	1	13	5	3	1	77	54
1989	78	32	29	13	1	1	11	5	7	2	126	53
1990	99	56	25	17	1	0	12	8	1	2	138	83
1991	51	37	22	10	0	0	5	1	0	1	78	49
1992	23	13	17	6	0	1	4	0	0	1	44	21
1993	42	16	7	5	1	0	3	1	0	1	53	23
1994	56	34	14	7	0	0	5	0	1	0	76	41
1995	70	47	23	6	0	1	6	3	0	0	99	57
1996	61	39	9	6	1	2	5	4	0	0	76	51
1997	62	48	10	5	1	0	2	2	0	1	75	56
1998	99	71	10	5	1	1	3	3	0	0	113	80

^a Game Management Units 33, 39, and 43.**Table 19.** Black bear depredation complaints handled in the Southwest Region, 1990-1998.

DAU	YEAR									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	
1G	0	0	4	4	3	7	11	1	5	
1H	1	2	2	0	0	2	4	1	1	
1K	1	27	5	2	3	11	3	2	5	
3B	0	0	0	0	1	1	1	1	0	
Total	2	29	11	6	7	21	19	5	11	

Table 20. Summary of Seasons by Method for DAU 3B, July 1 1998- June 30 1999.

Season Type ^a	DAU	Units	Season	
			Dates	Length
General, any legal weapon	3B	20A, 26, 27	9/15-10/31	47
			4/15-6/15	62
Dog-training only	3B	20A, 26, 27	None	

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

Table 21. Black bear harvest by season and sex of bear taken in DAU 3B^a, 1983-1998.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1983	5	1	6	0	3	3	5	4	9
1984	4	5	9	8	2	10	12	7	19
1985	8	2	10	9	3	12	17	5	22
1986	9	1	10	13	12	25	22	13	35
1987	9	2	11	16	9	25	25	11	36
1988	16	5	21	11	9	20	27	14	41
1989	9	7	16	10	1	11	19	8	27
1990	1	2	3	16	13	19	17	15	32
1991	13	7	20	7	8	15	20	15	35
1992	5	4	9	5	3	8	10	7	17
1993	4	4	8	22	16	38	26	20	46
1994	5	3	8	24	18	42	29	21	50
1995	2	7	9	12	7	19	14	14	28
1996	6	3	9	27	8	35	33	11	44
1997	5	3	8	8	8	16	13	11	24
1995-97 Avg.	4	4	8	16	8	24	20	12	32
1998	9	6	15	9	5	14	18	11	29
Difference	+ 5	+ 2	+7	-7	-3	-10	-2	-1	-3

^a Game Management Units 20A, 26, and 27.**Table 22.** Age distribution of black bear checked from DAU 3B^a, 1990-1998.

Age	1990		1991		1992		1993		1994		1995		1996		1997		1998 ^b	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unk.	8	5	2	3	3	1	3	5	3	5	3	1	0	3	2	0	18	11
Cub	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	ND	ND
1	0	4	0	0	0	1	7	0	3	1	1	1	1	0	1	0	ND	ND
2	0	1	0	2	1	1	1	2	4	7	2	1	6	1	0	1	ND	ND
3	1	0	1	0	0	1	1	3	1	4	5	3	5	1	4	0	ND	ND
4	4	2	1	2	0	1	1	2	3	0	0	0	10	0	4	2	ND	ND
5	0	2	2	1	0	0	2	0	0	1	1	2	0	0	1	2	ND	ND
6	0	0	2	0	2	0	4	0	0	1	0	1	0	2	0	0	ND	ND
7	1	1	4	4	1	0	1	2	0	0	1	0	2	2	0	1	ND	ND
8	0	0	3	2	2	0	1	0	3	0	0	0	2	1	0	1	ND	ND
9	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	2	ND	ND
10+	3	0	5	1	1	2	4	5	11	2	1	5	7	0	1	2	ND	ND
Total	17	15	20	15	10	7	26	20	29	21	14	14	33	11	13	11	18	11

^a Game Management Units 20A, 26, and 27.^b ND = no data, ages not available at time of reporting.

Table 23. Values of the 1992-2000 and 2000-2010 management plan criteria for DAU 3B^a, 1990-1998.

Year	N1 ^b	% Females	Median Age			% Males ≥5	# Males	N2 ^c
			Males	Females	Total			
1990	32	47	4	4	4	44	17	19
1991	35	43	7	7	7	89	20	30
1992	17	41	7	4	6	86	10	13
1993	46	43	5	7	5	52	26	38
1994	50	42	8	4	4	58	29	42
1995	28	50	3	5	3	27	14	24
1996	44	25	4	6.5	4	33	33	41
1997	24	46	4	7	4	18	13	22
1998	29	38	ND	ND	ND	ND	18	ND
1996-98 Avg.		34	ND	ND	ND	ND		
Desired levels		30-40%	≥4	≥6	≥5	25-35%		

^a Game Management Units 20A, 26, and 27.

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

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

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

Table 24. Method of harvest of black bear taken in DAU 3B^a, 1987-1998.

Year	Bait		Hound		Still		Incidental		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	0	0	1	0	8	5	11	3	5	3	25	11
1988	1	0	1	0	14	8	14	5	2	1	32	14
1989	2	0	3	0	6	8	5	0	3	0	19	8
1990	1	1	0	0	5	6	11	8	0	0	17	15
1991	0	1	1	0	13	6	5	7	1	1	20	15
1992	1	0	0	0	5	3	4	3	0	1	10	7
1993	0	0	0	0	10	6	16	14	0	0	26	20
1994	1	1	0	0	7	9	21	9	0	2	29	21
1995	0	0	0	0	6	9	8	4	0	1	14	14
1996	0	0	1	0	12	5	19	6	1	0	33	11
1997	0	0	0	0	6	2	6	8	1	1	13	11
1998	0	0	1	0	8	6	9	5	0	0	18	11

^a Game Management Units 20A, 26, and 27.

Table 25. Weapon type used to harvest black bear in DAU 3B^a, 1987-1998.

Year	<u>Rifle</u>		<u>Archery</u>		<u>Muzzleloader</u>		<u>Pistol</u>		<u>Other</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	25	8	0	0	0	0	0	0	5	3	25	11
1988	31	14	0	0	0	0	0	0	2	1	32	14
1989	18	8	0	0	0	0	0	0	3	0	19	8
1990	16	13	0	1	0	0	0	1	0	0	17	15
1991	19	13	0	0	0	0	0	1	1	1	20	15
1992	10	6	0	0	0	0	0	1	0	0	10	7
1993	26	19	0	0	0	0	0	0	0	1	26	20
1994	29	21	0	0	0	0	0	0	0	0	29	21
1995	13	14	1	0	0	0	0	0	0	0	14	14
1996	33	11	0	0	0	0	0	0	0	0	33	11
1997	13	9	0	0	0	0	0	2	0	0	13	11
1998	18	11	0	0	0	0	0	0	0	0	18	11

^a Game Management Units 20A, 26, and 27.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE: Idaho **JOB TITLE:** Black Bear Surveys and Inventories
PROJECT: W-170-R-23
SUBPROJECT: 4 **STUDY NAME:** Big Game Population Status, Trends,
STUDY: I Utilization and Associated Habitat
JOB: 9 Studies
PERIOD COVERED: July 1, 1998 to June 30, 1999

BLACK BEAR - MAGIC VALLEY REGION

ABSTRACT

Twenty-five black bears were harvested in DAU 4A in 1998, 25% above the 1995-1997 mean of 20 black bears. The small sample size precludes use of criteria established in the 1992-2000 Black Bear Management Plan for monitoring black bear populations. Hound hunting, incidental, and still hunting accounted for 28%, 40%, and 24%, respectively, of the black bears harvested. Baiting accounted for only 1 of the 25 black bears taken. Most black bears were taken by rifle (80%), while only 2 black bear (8%) were killed with archery equipment. Four depredation complaints were received by the Department and USDA Wildlife Services responded to one additional complaint.

AREA 4

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

MANAGEMENT DIRECTION

The Department will reduce or maintain current harvest levels and will work with the livestock industry and USDA Wildlife Services to gather more data on black bears killed in defense of private property.

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 statewide black bear harvest annually. Drought conditions persisted from 1986-1992 and resulted in an increase in black bear complaints around campgrounds and residences in the Big Wood River Valley. Good spring and early summer precipitation improved habitat conditions in 1993-

1998. 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 use apply in Units 44, 45, 48, and 49 due to conflicts with other recreationists and livestock operators.

HARVEST CHARACTERISTICS

The spring hunting season in 1998 was unchanged from the previous 5 years, while the fall season remained the same as in 1997 when the season was increased two weeks by eliminating the closure during the first two weeks of October. Both seasons followed frameworks adopted in the 1992-2000 Black Bear Management Plan (Table 1).

Twenty-five black bears were harvested in 1998, which is 25% higher than the 1995-1997 average of 22 black bears. The spring harvest of 13 black bears was the third highest since 1991. Access to mid- and high elevations was good because of a moderate snowpack and warm spring weather. Female harvest was 17% above the 1995-1997 average. Seven of the 25 (28%) black bears checked were females (Table 2).

Because only 25 black bears were harvested in this DAU, criteria developed in the black bear management plan to monitor populations cannot be applied. A sample of at least 30 harvested black bears annually is recommended to avoid inaccurate inferences from the data.

No age data were available at the time of this report to analyze age distribution and median age of harvested black bears for 1998 (Tables 3 and 4). This information will be included in next year's report.

Still and incidental hunting accounted for 64% of all black bears harvested in this DAU in 1998. This was the same percentage for these methods of take as in 1997. Only one of the 25 black bears harvested in 1998 was taken over bait. Hound hunting accounted for 28% of the harvested black bears (Table 5).

Rifles and archery equipment accounted for 80% and 8% of the 1998 black bear harvest, respectively. Archery harvest as a percentage of the harvest has been steadily declining since 1987 (Table 6).

Most depredation complaints involve nuisance black bears in the Big Wood River Valley. In 1998, 3 complaints were received on black bears getting into garbage cans or dumpsters in Unit 48 and one complaint was received for a bear getting into a bird feeder (Table 7).

Depredations on livestock are handled by Wildlife Services personnel. From 1987-1997, we received mortality reports on 11 black bears harvested by Wildlife Services (3-1988, 1-1990, 3-1993, 1-1994, 1-1995, 0-1996, 2-1997) for this DAU. In 1998, 1 black bear was harvested by Wildlife Services personnel.

DOG TRAINING SEASON

A standard season of May 23-July 31 was implemented in 1993.

MANAGEMENT IMPLICATIONS

In only 2 of the past 12 years has black bear harvest in DAU 4A been 30 or above, the minimum level to apply plan criteria. However, since implementation of the 1992-2000 Black Bear Management Plan, females in the harvest have averaged 30% and in the years preceding 1998 the trend in median age was decreasing (no age data available for 1998). The median age of harvested males appears to have remained relatively constant in the 11 years preceding 1998 (no age data available for 1998). In most years black bear complaints and depredation problems have been at tolerable levels. There is little need indicated to change current black bear management. Although the data doesn't support it, it is the opinion of the regional wildlife staff that the black bear population is increasing in DAU 4A.

Table 1. Summary of Seasons by Method for DAU 4A, 1998.

Season type ^{a,b}	DAU	Units	Season	
			Dates	Length
General, any legal weapon	4A	44 ^b , 45 ^b , 48 ^b , 49 ^b	4/15-5/22	38
			9/15-10/31	47
Pursuit only	4A	44, 45, 48, 49	5/23-7/31	70

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

^b Dogs prohibited from September 15 through October 31.

Table 2. Black bear harvest by season and sex of black bear taken in DAU 4A^a since 1985.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1985 ^b	10	7	17	2	0	2	12	7	19
1986 ^b	10	5	15	3	1	4	13	6	19
1987	13	2	15	1	1	2	14	3	17
1988	13	7	20	7	2	9	20	9	29
1989	11	3	14	5	6	11	16	9	25
1990	12	9	21	5	6	11	17	15	32
1991	13	8	21	2	2	4	15	10	25
1992	7	4	11	4	1	5	11	5	16
1993	5	3	8	8	1	9	13	4	17
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
1995-1997 Average	8.0	3.3	11.3	5.7	2.7	8.3	13.7	6.0	19.7
1998	8	5	13	10	2	12	18	7	25
Difference %	0	+ 51%	+ 15%	+ 75%	-26%	+ 45%	+ 31%	+ 17%	+ 27%

^a Includes Game Management Units 44, 45, 48, and 49.

^b Unit 44 had a year-round season. Units 48 and 49 were archery-only in September.

Table 3. Age distribution of black bear checked from DAU 4A^a, 1993-1998.

Age	1993		1994		1995		1996		1997		1998 ^b	
	M	F	M	F	M	F	M	F	M	F	M	F
Unk.	1	0	0	0	0	0	0	0	1	1	18	7
Cub	2	0	0	0	0	0	0	0	0	1	ND	ND
1	2	0	5	0	3	1	0	0	3	1	ND	ND
2	1	0	5	1	3	0	2	1	2	1	ND	ND
3	3	1	3	1	5	0	0	2	2	3	ND	ND
4	2	0	1	3	2	0	3	2	6	1	ND	ND
5	0	0	3	0	0	1	0	0	2	0	ND	ND
6	0	0	0	1	0	0	0	0	1	0	ND	ND
7	1	0	1	1	0	0	1	0	0	1	ND	ND
8	0	0	1	1	0	0	1	0	1	0	ND	ND
9	0	0	0	0	0	0	1	0	0	0	ND	ND
10+	1	3	0	3	2	1	0	0	0	1	ND	ND
Total	13	4	19	11	15	3	8	5	18	10	18	7

^a Includes Game Management Units 44, 45, 48, and 49.

^b ND = no age data available at time of reporting.

Table 4. Values of the 1992-2000 management plan criteria for DAU 4A, 1987-1998.

Year	N ^a	% Females	Median Age		Total
			Males	Females	
1987	15	18	3	3	3
1988	19	31	3	2	3
1989	21	36	3	3	3
1990	31	47	2	5	3
1991	23	40	4	5	4
1992	16	31	3	3	3
1993	17	24	3	10+	3
1994	30	37	2	6	4
1995	18	17	3	5	3
1996	13	38	4	3	4
1997	26	36	4	3	3.5
1998	ND	28	ND	ND	ND
1996-1998 Average	ND	33 ^b	ND ^b	ND ^b	ND ^b
(Desired Levels)		≤35	≥4	≥6	≥5

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

^a Number of black bears that were aged.

^b Insufficient data. Harvest criteria will be applied only to DAUs in which average annual harvest is at least 30 black bears.

Table 5. Method of harvest of black bear taken in DAU 4A, 1987-1998.

Year	<u>Bait</u>		<u>Hound</u>		<u>Still</u>		<u>Incidental</u>		<u>Other</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	11	2	0	0	1	0	2	0	0	0	14	2
1988	8	3	4	1	3	1	3	3	0	0	18	8
1989	8	1	2	1	3	3	3	4	0	0	16	9
1990	6	4	5	1	1	3	5	7	0	0	17	15
1991	4	6	4	0	5	3	2	1	0	0	15	10
1992	3	1	4	1	3	2	1	1	0	0	11	5
1993	0	0	4	1	6	3	3	0	0	0	13	4
1994	5	1	6	2	3	3	5	4	0	1	19	11
1995	6	0	1	1	4	1	4	1	0	0	15	3
1996	2	0	4	0	2	4	0	1	0	0	8	5
1997	4	2	3	0	6	4	4	4	1	0	18	10
1998	1	0	4	3	4	2	7	3	1	0	17	8

Table 6. Weapon type used to harvest black bear in DAU 4A, 1987-1998.

Year	Rifle		Archery		Muzzleloader		Pistol		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	5	0	8	2	0	0	1	0	0	0	14	2
1988	14	6	6	2	0	0	0	1	0	0	20	9
1989	5	6	8	2	0	0	2	1	0	0	15	9
1990	11	10	4	5	0	0	2	0	0	0	17	15
1991	10	4	5	6	0	0	0	0	0	0	15	10
1992	6	4	4	1	0	0	0	0	0	0	10	5
1993	13	4	0	0	0	0	0	0	0	0	13	4
1994	14	8	5	3	0	0	0	0	0	0	19	11
1995	12	3	1	0	0	0	2	0	0	0	15	3
1996	8	4	0	1	0	0	0	0	0	0	8	5
1997	15	9	2	1	0	0	0	0	1	0	18	10
1998	13	7	2	0	0	0	2	0	1	0	18	7

Table 7. Black bear depredation complaints handled in the Magic Valley Region, 1992-1998.

DAU	Year						
	1992	1993	1994	1995	1996	1997	1998
4A	2	2	9	4	1	3	5
Total	2	2	9	4	1	3	5

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Black Bear Surveys and</u>
PROJECT:	<u>W-170-R-23</u>		<u>Inventories</u>
SUBPROJECT:	<u>5 and 6</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>I</u>		<u>Trends, Utilization and</u>
JOB:	<u>9</u>		<u>Associated Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 1998 to June 30, 1999</u>		

BLACK BEAR - UPPER SNAKE REGION

ABSTRACT

Overharvest continues to be a concern in the Upper Snake Region. These concerns led to reductions in take seasons beginning in 1993, consistent with statewide reductions. To date, total black bear harvest has not declined in the Upper Snake and Southeast Regions under the more restrictive season frameworks. Reductions in the take season will continue to be monitored to determine effects.

AREA 4

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

ABSTRACT

Overharvest criteria do not apply in this DAU due to low average annual harvest (< 30). However, concerns over possible overharvest led to reductions in take seasons beginning in 1993 consistent with statewide reductions. Black bear harvest has not declined under the more restrictive season framework. The 26 black bears harvested in 1998 and the 27 and 28 in 1997 and 1996, respectively, represent the three largest totals in the last ten years. Three of the four overharvest criteria were exceeded in 1998.

MANAGEMENT DIRECTION

The Department will manage black bear populations in Area 4 to reduce or maintain current harvest levels.

BACKGROUND

Area 4 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 very vulnerable to harvest because the limited habitat is often isolated from adjacent bear habitat. The livestock industry is a major user of Area 4.

A summary of season framework for DAU 4B is presented in Table 1.

The region experienced an unusually cool and wet spring. The cool rainy conditions ceased in mid-June and the summer and fall were warm and dry. Winter precipitation was near normal while temperatures were above average. Cool and wet conditions prevailed again during the spring and early summer of 1999.

POPULATION SURVEYS

No population surveys were conducted during this reporting period.

HARVEST CHARACTERISTICS

A relatively small number (< 30) of black bears are checked from DAU 4B annually. Therefore, harvest data are derived from small sample sizes, and conclusions are tenuous. The 1992-2000 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 judgement of Department biologists.

Twenty-six black bears were checked from DAU 4B in 1998, the third largest total (28 black bears were harvested in 1996 and 27 in 1997) in the last ten-year period (Table 2). Age was determined for the 19 black bears harvested during the spring season. Age data for the fall season were not available in time for inclusion in this report. Historical age distribution of black bear checked from DAU 4B is shown in Table 3.

While overharvest criteria do not apply in this DAU due to low average annual harvest levels, harvest data and plan criteria are presented in Table 4. Three of the four management plan criteria were exceeded in 1998, and the 1996-1998 average also shows three of the four overharvest criteria being exceeded. There has been concern about overharvest in these units at various times over the past 10 years. Beginning in 1993 take seasons were shortened by eliminating two weeks from the front of the spring season and one week off the end. Fall take season was also reduced by a total of four weeks (two weeks off both the beginning and the end of the season). These changes were consistent with statewide reductions. These changes have had little apparent effect on total black bear harvest to date.

The breakdown of harvest by method and weapon type is shown in Tables 5 and 6, respectively. Bait (38%) and hound hunters (31%) again accounted for the majority of the harvest by method of take for this DAU.

DEPREDATIONS

No black bear depredation complaints were received from DAU 4B during this reporting period (Table 7).

DOG TRAINING SEASONS

The 1998 dog training season ran from June 8-July 31 in DAU 4B.

MANAGEMENT IMPLICATIONS

Overharvest criteria do not apply in this DAU due to low average annual harvest. However, there has been concern about possible overharvest in this DAU at various times over the past 10 years, and three of the four overharvest criteria were exceeded in 1998. Reductions in the take season were implemented in 1993 and will continue to be monitored to determine future effects, although to date, these changes have not resulted in a reduction in harvest or an improvement in meeting overharvest criteria.

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

ABSTRACT

Overharvest criteria do not apply in DAU 4C due to low average annual harvest. Concern over possible overharvest led to reductions in the take seasons, beginning in 1993, consistent with statewide reductions. Black bear harvest had not declined under the more restrictive season framework, although only 14 bears were taken in 1998. The 23, 29, 29, and 26 black bears harvested in 1997, 1996, 1995, and 1994, respectively, represented the four largest totals in the last ten years. One of the four overharvest criteria were exceeded in 1998, while two of the four were exceeded for the 1996-1998 period.

MANAGEMENT DIRECTION

The Department will manage black bear populations in Area 4 to reduce or maintain current harvest levels. DAU 4C includes part of the Greater Yellowstone Ecosystem, which supports a grizzly bear population. This DAU will be managed to protect that threatened population by prohibiting baiting and use of hounds to hunt black bear in those areas.

BACKGROUND

Area 4 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 very vulnerable to harvest because the limited habitat is often isolated from adjacent bear habitat. The livestock industry is a major user of Area 4.

A summary of season type and structure for DAU 4C is presented in Table 1.

The region experienced an unusually cool and wet spring. The cool rainy conditions ceased in mid-June and the summer and fall were warm and dry. Winter precipitation was near normal while temperatures were above average. Cool and wet conditions prevailed again during the spring and early summer of 1999.

POPULATION SURVEYS

No population surveys were conducted during this reporting period.

HARVEST CHARACTERISTICS

A relatively small number of black bears (< 30) are checked from this DAU annually. Therefore, harvest data are derived from small sample sizes, making conclusions drawn from them tenuous. The 1992-2000 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 judgement of Department biologists.

Fourteen black bears were checked from DAU 4C in 1998. This total represents a precipitous drop after four years of relatively high harvest. Black bear harvest by season and sex is shown in Table 8. Age distribution of black bear checked from DAU 4C is presented in Table 9.

While overharvest criteria do not apply in this DAU due to low average annual harvest levels, harvest data and plan criteria are presented in Table 10. One of the four overharvest criteria were exceeded in 1998, while two of the four were exceeded for the 1996-1998 period. Concern over possible overharvest problems in this DAU resulted in a reduction in take seasons beginning in 1993. A total of four weeks were eliminated from both the spring and fall seasons (two weeks off both the beginning and end of the seasons). These changes were consistent with statewide reductions.

The breakdown of 1998 harvest by method and weapon type is shown in Tables 11 and 12, respectively.

DEPREDACTIONS

Two black bear nuisance complaints were received from DAU 4C during this reporting period (Table 7), resulting in the relocation of one black bear. These complaints involved black bears in the vicinity of cabins in the Island Park area.

DOG TRAINING SEASON

The 1998 dog training season ran from June 8-July 31 in the open portion of DAU 4C (that portion of Unit 61 west of Howard Creek in Clark County) and all of Unit 60.

MANAGEMENT IMPLICATIONS

Overharvest criteria do not apply in this DAU due to low average annual harvest. However, concern over possible overharvest led to reductions in the take seasons beginning in 1993 consistent with statewide reductions. These changes will continue to be monitored to determine effects, although to date, these changes have not resulted in a reduction in overall harvest or an improvement in meeting overharvest criteria.

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

ABSTRACT

Overharvest continues to be a concern in DAU 4D. All overharvest criteria have consistently been exceeded over the last 10 years. Reductions in take seasons were implemented in 1992 and furthered in 1993. However, black bear harvest has not declined noticeably under the more restrictive season framework.

MANAGEMENT DIRECTION

The Department will manage black bear populations in Area 4 to reduce or maintain current harvest levels.

BACKGROUND

Area 4 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 very vulnerable to harvest because the limited habitat is often isolated from adjacent bear habitat. The livestock industry is a major user of Area 4.

A summary of season type and structure for DAU 4D is presented in Table 1.

The region experienced an unusually cool and wet spring. The cool rainy conditions ceased in mid-June and the summer and fall were warm and dry. Winter precipitation was near normal while temperatures were above average. Cool and wet conditions prevailed again during the spring and early summer of 1999.

POPULATION SURVEYS

A bait station survey was conducted in DAU 4D from June 24-29, 1999. A total of 138 bait stations were established on 23 transects in Units 66, 66A, 67, and 76; however, no visits by black bear were recorded (Table 13).

HARVEST CHARACTERISTICS

A total of 34 black bears were checked from DAU 4D in 1998 (Table 14). This represents the third largest total in the last 10 years. The average annual harvest for the preceding three-year period (1993-1996) was 28. Age distribution of black bears checked from DAU 4D is shown in Table 15.

Overharvest criteria have been consistently exceeded for DAU 4D over the last 10-year period (Table 16). A large percentage of the black bears harvested have historically been taken in the spring and in association with baiting activities (Table 17). Weapon type used to harvest black bears in DAU 4D is shown in Table 18. Based upon analysis of overharvest criteria, harvest restrictions were implemented as outlined in the 1992-2000 Black Bear Management Plan. The 1992 spring season was shortened by removing 15 days from the end of the season. Further reductions in take seasons were implemented beginning in 1993. A total of four weeks were eliminated from both the spring and fall seasons (two weeks off both the beginning and end of the seasons). These changes are consistent with statewide reductions and will be monitored to determine future effects.

DEPREDATIONS

Wildlife Services verified one complaint involving a black bear in DAU 4D during this reporting period (Table 7).

DOG TRAINING SEASON

The 1998 dog training season ran from June 8-July 31 in DAU 4D.

MANAGEMENT IMPLICATIONS

Overharvest continues to be a concern in DAU 4D. Overharvest criteria have consistently been exceeded over the last 10-year period. Reductions in take seasons were implemented in 1992 and furthered in 1993. These changes will continue to be monitored to determine future effects.

AREA 5

GMUS 60A, 63, 63A

ABSTRACT

Black bear numbers in Area 5 are low and too sparse to justify a hunting season. The Department has not offered an open season in Area 5.

MANAGEMENT DIRECTION

Black bear in Area 5 are too sparse to justify a hunting season. The Department will not offer an open season in Area 5 during the 1992-2000 planning period.

BACKGROUND

Area 5 units are irrigated farmland and drier, desert-like areas. Habitat quality is marginal and few black bears occur in Area 5.

Area 5 units have historically had no black bear hunting seasons.

POPULATION SURVEYS

No population surveys are conducted in Area 5.

HARVEST CHARACTERISTICS

None.

DEPREDATIONS

No black bear depredations were reported in Area 5 during this reporting period.

DOG TRAINING SEASON

None.

MANAGEMENT IMPLICATIONS

The Department will not offer an open season in Area 5 during the 1992-2000 planning period.

Table 1. Summary of Seasons by Method for DAUs 4B, 4C, and 4D, Fall 1998-Spring 1999.

Season type ^{a,b}	DAU	Units	Season	
			Dates	Length
General, any legal weapon	4B	50, 51, 58, 59, 59A	9/15-10/14	30 days
			4/15-6/7	54 days
General, any legal weapon ^b	4C	60, 61, 62, 62A	9/15-10/14	30 days
			4/15-6/15	62 days
General, any legal weapon	4D	64, 65, 66, 66A, 67, 69, 76	9/15-10/14	30 days
			4/15-6/7	54 days
Pursuit only	4B	50, 51, 58, 59, 59A	6/8-7/31	54 days
Pursuit only ^c	4C	61	6/16-7/31	46 days
Pursuit only	4D	64, 65, 66, 66A, 67, 69, 76	6/8-7/31	54 days
Controlled, any legal weapon	None			

^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 62 and 62A.

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

Table 2. Black bear harvest by season and sex of bear taken in DAU 4B^a since 1985.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1985	4	7	11	1	0	1	5	7	12
1986	5	1	6	4	0	4	9	1	10
1987	3	3	6	9	5	14	12	8	20
1988	6	4	10	4	5	9	10	9	19
1989	4	2	6	2	0	2	6	2	8
1990	5	5	10	7	0	7	12	5	17
1991	7	3	10	4	1	5	11	4	15
1992	6	5	11	7	5	12	13	10	23
1993	4	4	8	6	3	9	10	7	17
1994	10	6	16	5	4	9	15	10	25
1995	8	6	14	3	1	4	11	7	18
1996	18	4	22	3	3	6	21	7	28
1997	13	7	20	4	3	7	17	10	27
1995-1997									
Average	13.0	5.7	18.7	3.3	2.3	5.7	16.3	8.0	24.3
1998	11	8	19	3	4	7	14	12	26
Difference	2.0	-2.3	-0.3	0.3	-1.7	-1.3	2.3	-4.0	-1.7

^a Includes Game Management Units 50, 51, 58, 59, and 59A.

Table 3. Age distribution of black bear checked from DAU 4B^a, 1991-1998.

Age	1991		1992		1993		1994		1995		1996		1997		1998 ^b	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unknown	1	1	2	0	1	1	1	1	0	0	1	0	0	0	0	0
Cub	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3
1	1	0	2	3	2	0	2	0	3	0	3	0	3	0	1	0
2	3	1	1	1	2	0	1	1	1	1	1	1	1	1	2	1
3	1	0	3	0	4	2	2	1	1	1	4	1	1	1	2	1
4	2	1	3	0	0	3	5	4	2	0	5	0	2	0	1	1
5	0	0	0	1	0	0	1	2	3	2	2	2	3	2	0	0
6	1	0	1	2	1	0	3	0	0	0	1	0	0	0	2	0
7	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0
10+	1	0	0	2	0	1	0	1	1	2	2	1	1	2	1	2
Total	11	4	13	10	10	7	15	10	11	7	21	7	11	7	11	8

^a Includes Game Management Units 50, 51, 58, 59, and 59A.

^b Age data for fall portion of 1998 season not available in time for inclusion in this report.

Table 4. Values of the 1992-2000 management plan criteria for DAU 4B, 1985-1998.

Year	N1	% Females	Median Age		Total
			Males	Females	
1985	12	*58	*3	*5	*4
1986	10	10	*1	UNK	*1
1987	20	*40	*3	*4	*3
1988	20	*55	4	*4	*4
1989	8	25	*2	*3	*3
1990	17	29	*3	6	5
1991	15	27	*2	*4	*3
1992	23	*43	*3	*5	*4
1993	17	*41	*2	*4	*3
1994	25	*40	4	*4	*4
1995	18	*39	4	*5	5
1996	28	25	4	*5	*4
1997	27	*37	*3	*4.5	*3
1998	26	*42	*3 ^a	*2.5 ^a	*3 ^a
1996-1998					
Average	27.0	35	*3 ^a	*4 ^a	*3 ^a
Desired					
Levels		35	4 years	6 years	5 years

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

^a Age data for fall portion of 1998 season not available in time for inclusion in this report.

Table 5. Method of harvest of black bear taken in DAU 4B (Units 50, 51, 58, 59, and 59A), 1987-1998.

Year	Bait		Hound		Still		Incidental		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	10	7	0	0	0	0	2	1	0	0	12	8
1988	2	3	7	3	1	1	0	2	0	0	10	9
1989	5	2	0	0	0	0	1	0	0	0	6	2
1990	5	4	2	0	1	0	2	1	2	0	12	5
1991	3	2	3	1	0	0	1	0	4	1	11	4
1992	3	0	4	5	3	1	3	4	0	0	13	10
1993	2	0	5	4	1	0	2	3	0	0	10	7
1994	1	4	8	3	3	0	3	3	0	0	15	10
1995	4	2	4	4	1	1	2	0	0	0	11	7
1996	6	3	12	2	1	2	2	0	0	0	21	7
1997	7	5	6	2	1	1	3	2	0	0	17	10
1998	6	4	6	2	1	3	1	3	0	0	14	12

Table 6. Weapon type used to harvest black bear in DAU 4B, (Units 50, 51, 58, 59, and 59A), 1987-1998.

Year	Rifle		Archery		Muzzle-loader		Pistol		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	1	2	11	4	0	0	0	1	0	0	12	7
1988	5	8	5	0	0	0	0	1	0	0	10	9
1989	4	1	2	1	0	0	0	0	0	0	6	2
1990	5	2	3	2	0	0	2	1	2	0	12	5
1991	4	1	2	1	0	0	5	2	0	0	11	4
1992	8	6	4	2	0	0	1	2	0	0	13	10
1993	4	4	5	2	0	0	1	1	0	0	10	7
1994	10	4	4	5	0	1	1	0	0	0	15	10
1995	8	4	2	0	0	0	1	2	0	1	11	7
1996	11	4	3	3	1	0	6	0	0	0	21	7
1997	8	3	8	5	0	0	1	2	0	0	17	10
1998	7	8	4	3	0	0	3	1	0	0	14	12

Table 7. Black bear depredation complaints handled in the Upper Snake Region, 1991-1998.

DAU	YEAR								
	1991	1992	1993	1994	1995	1996	1997	1998	
4B	0	0	0	0	1	2	0	0	
4C	0	1	1	10	11	11	8	0	
4D	0	2	6	15	9	1	4	1	
Total	0	3	7	25	21	14	12	1	

Table 8. Black bear harvest by season and sex of bear taken in DAU 4C^a since 1985.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1985	2	2	4	3	0	3	5	2	7
1986	4	0	4	13	3	16	17	3	20
1987	1	2	3	2	5	7	3	7	10
1988	3	0	3	12	7	19	15	7	22
1989	6	2	8	5	0	5	11	2	13
1990	7	0	7	5	3	8	12	3	15
1991	6	2	8	3	2	5	9	4	13
1992	5	3	8	3	1	4	8	3	11
1993	7	3	10	2	3	5	9	6	15
1994	6	3	9	12	5	17	18	8	26
1995	8	7	15	10	4	14	18	11	29
1996	12	2	14	7	8	15	19	10	29
1997	12	1	13	6	4	10	18	5	23
1995-1997									
Average	10.7	3.3	14.0	7.7	5.3	13.0	18.3	8.7	27.3
1998	4	1	5	6	3	9	10	4	14
Difference	6.7	2.3	9.0	1.7	2.3	4.0	8.3	3.7	13.3

^a Includes Game Management Units 60, 61, 62, and 62A.

Table 9. Age distribution of black bear checked from DAU 4C^a, 1991-1998.

Age	1991		1992		1993		1994		1995		1996		1997		1998 ^b	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unknown	0	1	1	1	0	2	1	0	3	1	1	0	1	0	0	0
Cub	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
1	1	0	1	0	0	0	6	1	4	0	3	2	1	0	0	0
2	0	1	1	0	1	0	1	1	1	1	3	1	2	0	0	0
3	3	1	0	1	2	1	3	1	3	3	3	2	3	1	0	0
4	1	0	1	2	1	1	2	1	2	1	1	1	6	2	0	1
5	0	0	3	0	1	0	1	2	2	0	3	0	3	0	1	0
6	2	0	0	0	0	0	1	0	1	1	1	0	2	0	1	0
7	0	0	0	0	1	0	1	0	0	1	1	0	1	0	0	0
8	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0
9	0	1	0	0	0	1	1	0	0	0	1	0	1	0	1	0
10+	1	0	1	0	2	1	0	2	2	2	1	3	1	1	1	0
Total	9	4	8	4	9	6	18	8	18	11	18	9	18	5	4	1

^a Includes Game Management Units 60, 61, 62, and 62A.

^b Age data for fall portion of 1998 season not available in time for inclusion in this report.

Table 10. Values of the 1992-2000 management plan criteria for DAU 4C, 1985-1998.

Year	N1	% Females	Median Age		Total
			Males	Females	
1985	7	29	*3	7	*4
1986	20	15	*3	*4	*3
1987	10	*70	*2	*5	*3
1988	25	28	5	*3	*4
1989	13	15	*2	6	*4
1990	16	25	4	*4	*3
1991	13	31	4	*3	*3
1992	12	33	5	*4	*4
1993	15	*40	5	*3	*4
1994	26	31	*3	*5	*3
1995	29	*38	*3	*5	*4
1996	27	33	*3	*3	*3
1997	23	22	4	*4	*4
1998	14	29	7.5 ^a	4 ^a	6 ^a
1996-1998					
Average	21.3	28	4.5 ^a	*4 ^a	*4 ^a
Desired					
Levels		35	4 years	6 years	5 years

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

^a Age data for fall portion of 1998 season not available in time for inclusion in this report.

Table 11. Method of harvest of black bear taken in DAU 4C (Units 60, 61^a, 62^a, and 62A^a), 1987-1998.

Year	Bait		Hound		Still		Incidental		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	1	0	0	0	0	2	2	5	0	0	3	7
1988	2	0	2	1	1	2	10	4	0	0	15	7
1989	3	1	1	0	2	1	5	0	0	0	11	2
1990	2	0	0	0	5	0	3	2	2	1	12	3
1991	3	0	2	0	1	1	3	3	0	0	9	4
1992	2	1	1	0	3	1	1	2	1	0	8	4
1993	3	1	1	1	3	0	2	4	0	0	9	6
1994	4	2	2	0	7	4	5	1	0	1	18	8
1995	7	3	1	2	5	3	5	2	0	1	18	11
1996	6	1	1	0	6	7	5	2	1	0	19	10
1997	6	0	2	0	7	5	2	0	0	0	17	5
1998	0	1	1	0	4	0	5	3	0	0	10	4

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

Table 12. Weapon type used to harvest black bear in DAU 4C, (Units 60, 61, 62, and 62A), 1987-1998.

Year	Rifle		Archery		Muzzle-loader		Pistol		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	2	5	1	2	0	0	0	0	0	0	3	7
1988	12	7	1	0	0	0	0	0	0	0	13	7
1989	6	2	3	0	1	0	1	0	0	0	11	2
1990	4	3	5	0	0	0	0	0	2	1	11	4
1991	1	3	6	0	1	0	1	1	0	0	9	4
1992	5	3	1	1	0	0	2	0	0	0	8	4
1993	7	5	1	0	0	0	1	1	0	0	9	6
1994	13	5	2	3	0	0	3	0	0	0	18	8
1995	14	7	2	2	0	0	2	2	0	0	18	11
1996	12	9	5	1	1	0	1	0	0	0	19	10
1997	12	4	4	1	0	0	1	0	0	0	17	5
1998	6	3	3	1	0	0	1	0	0	0	10	4

Table 13. Bait station survey results from DAU 4D.

Year	Survey Number	Survey Dates	Total Trans. Avail.	Total Trans. Sampled	Total Stations Sampled	Total Stations Visited by Bear	90% Confidence Interval (+ / -)
1992 ^a	1	6/24-7/11	16	16	94	0	0.0
1993 ^a	1	6/24-7/1	18	18	107	1	0-4.0%
1999 ^b	1	6/24-6/29	23	23	138	0	0.0

^a Survey conducted in Units 66A and 76.

^b Survey conducted in Units 66, 66A, 67, and 76.

Table 14. Black bear harvest by season and sex of bear taken in DAU 4D^a since 1985.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1985	11	9	20	1	8	9	12	17	29
1986	16	13	29	5	3	8	21	16	37
1987	11	11	22	4	6	10	15	17	32
1988	6	5	11	6	4	10	12	9	21
1989	12	8	20	3	11	14	15	19	34
1990	21	9	30	6	3	9	26	12	38
1991	9	8	17	5	4	9	14	12	26
1992	9	4	13	6	6	12	15	10	25
1993	8	4	12	7	4	11	15	8	23
1994	10	3	13	5	6	11	15	9	24
1995	5	3	8	7	2	9	12	5	17
1996	13	4	17	5	7	12	18	11	29
1997	18	5	23	9	6	15	27	11	38
1995-1997									
Average	12.0	4.0	16.0	7.0	5.0	12.0	19.0	9.0	28.0
1998	20	5	25	5	3	10 ^b	25	8	34 ^b
Difference	-8.0	-1.0	-9.0	2.0	2.0	2.0	-6.0	1.0	-6.0

^a Includes Game Management Units 64, 65, 66, 66A, 67, 69, and 76.^b Sex was not reported for one bear.**Table 15.** Age distribution of black bear checked from DAU 4D^a, 1991-1998.

Age	1991		1992		1993		1994		1995		1996		1997		1998 ^b	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unknown	1	2	3	0	2	1	0	0	2	0	0	0	1	0	0	0
Cub	0	0	0	0	0	0	0	1	0	0	0	1	1	0	3	1
1	2	1	2	1	1	0	3	0	0	0	0	3	2	1	1	0
2	3	2	5	2	3	4	5	2	2	2	7	1	8	0	5	1
3	3	2	3	0	0	1	5	3	5	2	3	2	3	3	2	0
4	3	0	0	1	3	0	2	1	0	0	2	1	4	3	3	1
5	1	1	1	3	2	0	0	1	1	0	2	1	3	0	3	0
6	1	1	0	1	1	0	0	0	1	0	2	0	3	2	0	1
7	0	1	1	1	1	0	0	1	0	1	0	0	1	1	2	1
8	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	1	0	0	1	0	1	1	0	0	0	0
10+	0	1	0	1	2	1	0	0	0	0	1	0	1	1	1	0
Total	14	12	15	10	15	9	15	9	12	5	17	11	27	11	20	5

^a Includes Game Management Units 64, 65, 66, 66A, 67, 69, and 76.^b Age data for fall portion of 1998 season not available in time for inclusion in this report.

Table 16. Values of the 1992-2000 management plan criteria for DAU 4D, 1985-1998.

Year	N1	% Females	Median Age		Total
			Males	Females	
1985	29	*59	*2		*3
1986	37	*43	*3	*4	*4
1987	32	*53	4	*2	*3
1988	21	*43	*2	*3	*3
1989	34	*56	*3	*2	*3
1990	38	34	*3	*3	*3
1991	26	*46	*3	*4	*3
1992	25	*40	*2	*5	*3
1993	24	*38	4	*2	*4
1994	24	*38	*2	*3	*3
1995	17	29	*3	*2	*3
1996	28	*39	*3	*3	*3
1997	38	29	*3	*4	*4
1998	34	24	*3 ^a	*4 ^a	*3 ^a
1996-1998					
Average	33.3	30	*3 ^a	*4 ^a	*3 ^a
Desired					
Levels		35	4 years	6 years	5 years

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

^a Age data for fall portion of 1998 season not available in time for inclusion in this report.

Table 17. Method of harvest of black bear taken in DAU 4D (Units 64, 65, 66, 66A, 67, 69, and 76), 1987-1998.

Year	Bait		Hound		Still		Incidental		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	7	7	3	1	2	2	1	4	0	0	13	14
1988	5	6	1	0	0	0	5	2	0	0	11	8
1989	10	7	3	0	1	4	0	6	0	0	14	17
1990	19	7	2	2	2	0	3	2	0	1	26	12
1991	8	5	0	0	1	2	2	4	0	0	11	11
1992	6	2	2	1	2	3	5	3	0	0	15	9
1993	9	3	0	0	0	1	6	4	0	0	15	8
1994	6	4	0	1	5	0	4	4	0	0	15	9
1995	6	2	0	0	3	1	3	2	0	0	12	5
1996	8	5	5	2	3	0	2	3	0	1	18	11
1997	21	4	3	2	1	2	2	2	0	1	27	11
1998	11	1	9	2	1	0	3	4	1	1	25	8

Table 18. Weapon used to harvest black bear taken in the Upper Snake Region portion of DAU 4D (Units 64, 65, 66, 66A, 67, 69, and 76), 1987-1998.

Year	Rifle		Archery		Muzzle-loader		Pistol		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1987	3	2	8	13	0	0	2	2	0	0	13	17
1988	3	4	5	4	0	0	2	0	0	0	10	8
1989	5	12	6	3	0	0	2	2	0	0	13	17
1990	9	4	16	5	0	0	1	2	0	0	26	11
1991	6	7	5	3	0	0	0	1	0	0	11	11
1992	5	7	8	2	0	0	2	0	0	0	15	9
1993	8	5	7	2	0	0	0	1	0	0	15	8
1994	9	6	5	2	0	0	1	1	0	0	15	9
1995	8	5	4	0	0	0	0	0	0	0	12	5
1996	8	8	7	3	0	0	3	0	0	0	18	11
1997	14	7	6	1	0	0	6	3	1	0	27	11
1998	14	7	6	0	0	1	4	0	1	0	25	8

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE: Idaho **JOB TITLE:** Black Bear Surveys and Inventories
PROJECT: W-170-R-23
SUBPROJECT: 7 **STUDY NAME:** Big Game Population Status, Trends,
STUDY: I Utilization and Associated Habitat
JOB: 9 Studies
PERIOD COVERED: July 1, 1998 to June 30, 1999

BLACK BEAR - 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 175 black bears were harvested. In the wet years of 1997 and 1998, there were few depredation problems and about 100 black bears harvested. Hound hunters take more black bears (averaging 37 black bears per year) than hunters using any other method, followed by incidental hunters. Still hunters take the fewest (averaging 24 black bears per year). Bait and hound hunters appear to be more selective in the animals they take (30% females) compared to still and incidental hunters (40% females).

AREA 1

DAU 1I (GMUS 34, 35, 36)

MANAGEMENT DIRECTION

Follow statewide management direction in 1992-2000 Black Bear Management Plan. For Area 1 the direction is to maintain or reduce harvest, improve age structure, and provide a variety of hunting opportunities.

BACKGROUND

DAU II is bordered by the Frank Church Wilderness on the north and includes part of the Sawtooth Wilderness on the south. Virtually all of DAU II is land administered by the U.S. Forest Service, with minor amounts of private land in the 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 reported in Table 1.

This area is characterized by high snowfall and cold winter temperatures. Summer 1998 was characterized by above normal precipitation and temperatures. Fall 1998 received below normal precipitation, with above normal temperatures.

POPULATION SURVEYS

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

HARVEST CHARACTERISTICS

Although comparable to 1996 and 1997, the 1998 harvest was well below the 1993-1995 average (Table 2). Dry fall seasons generally make females and young black bears much more vulnerable than usual - percent females in the harvest increased and the median age of harvested black bears decreased in 1993 and 1994 (Tables 3 and 4). In contrast the 1996-1998 harvests contained relatively few females. About half the black bears in this DAU are taken by still and incidental hunters (Table 5). Most black bears are taken by rifle (Table 6).

DEPREDACTIONS

The depredations in this DAU usually accounted for the majority of the black bear problems in the Salmon Region prior to 1994 (Table 17). Complaints were chronic problems with garbage in the same locations each year. The Forest Service provided bear-proof trash containers for the 1994 season in Stanley area campgrounds, which helped alleviate some of the problems. Since then depredation complaints have decreased.

MANAGEMENT IMPLICATIONS

Management direction for this area is to maintain or reduce harvest. The harvest has been on an increasing trend in this DAU the past few years. Other indicators (% females, median ages) have declined, suggesting the need for careful monitoring and analysis in the next few years.

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

MANAGEMENT DIRECTION

Follow statewide management direction in 1992-2000 Black Bear Management Plan. Reduce harvest and increase the age structure of harvested black bears.

BACKGROUND

Area 1 consists of black bear habitat that varies from dense, semicoastal forests to dry river breaks with patchy timber stands. Area 1 is highly roaded, which makes black bear populations in this area vulnerable to overharvest.

DAU 1J includes Units 21, 21A, 28, and 36B. These units contain some of the best black bear habitat in the Salmon Region. However, hunter access is also 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 the spring, and summer drought which can concentrate black bears along accessible riparian areas in the fall. Black bear season structure is reported in Table 1.

Summer 1998 was warm and wet, with above normal temperatures and June-September precipitation.

Most of the area in DAU 1J is public land, primarily U.S. Forest Service, with some Bureau of Land Management and Idaho State lands. Private property in these units is primarily associated with the valley bottoms or patented mining claims.

POPULATION SURVEYS

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

HARVEST CHARACTERISTICS

During the wet years of 1996-1998, the DAU 1J black bear check was 53 to 55 bears per year, compared to 66-82 bears per year during the dry 1993-1995 years (Table 7). For the 1993-1995 and 1995-1997 periods, percent female black bears, median age of females, and median age of all harvested black bears were below the desired level (Tables 8 and 9). Part of the decrease may be related to female and young vulnerability during dry years. The 1996-1998 harvest averaged 28% females, well within the management goal range. Over the last ten years, the bait and hound hunter harvest has averaged 30% females compared to the still hunter harvest of 38% females and incidental hunter harvest averaging 40% females (Table 10). Most black bears are taken by rifle (Table 11).

DEPREDEATIONS

Black bear depredation complaints in past years have been primarily related to fruit trees and garbage on the Salmon River below North Fork. The U.S. Forest Service installed bear-proof dumpsters at dump sites along the Salmon River for the 1994 season. The dry summer and fall produced very poor forage conditions and a dramatic increase in black bear complaints during 1994, followed by few complaints during the wet 1995 summer, then a moderate increase during the dry 1996 summer. No complaints were handled during the wet 1997 summer, but 11 complaints occurred in 1998 (Table 17).

MANAGEMENT IMPLICATIONS

The harvest sex and age structure does not entirely meet the desired criteria. However, a change in management is not indicated. According to the 1992-2000 Black Bear Management Plan, harvest restrictions will be implemented when a DAU is at or below the overharvest median age standards, the population is declining, or the percent of females is 40% or more. At this point DAU 1J is between desired and overharvest levels established in the species plan, but the overall trend does not appear to be declining.

AREA 4

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

MANAGEMENT DIRECTION

Follow statewide management direction in 1992-2000 Black Bear Management Plan. Reduce or maintain current harvest levels.

BACKGROUND

DAU 4E includes Units 29, 30, 30A, 36A, 37, and 37A. These units generally are characterized by mountain valleys separated by rugged mountain ranges. Most of the black bear habitat occurs in scattered pockets in the mountains. The valleys are generally agricultural land and contain little suitable black bear habitat except along streams. 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 1).

POPULATION SURVEYS

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

HARVEST CHARACTERISTICS

The number of black bears checked was relatively stable at 30-36 black bears from 1985 to 1994, with a decrease in 1991 and 1992 (Table 12). Forty black bears were harvested in 1995, but only 26-30 black bears have been harvested annually since 1996. Although the harvest sex and age structure improved in 1995, the 1993-1995 harvest sex and age structure averages fell below criteria on all values. The 1995-1997 averages also fell below criteria, except male median age. As in other DAUs, the bait and hound hunter harvest is composed of a lower proportion of females (29%) compared to still or incidental hunters (47%) (Table 15). Most black bears harvested are taken by rifle (Table 16).

DEPREDACTIONS

Except for 1994, an unusually dry year, DAU 4E experiences relatively few depredation problems (Table 17). No complaints were reported in 1996 or 1997. Four complaints were handled in 1998.

MANAGEMENT IMPLICATIONS

The harvest criteria for this DAU are below desired levels and approaching overharvest levels, which could trigger season changes if this trend continues.

Table 1. Summary of Seasons by Method for DAUs 1I, 1J, and 4E, July 1, 1998-June 30, 1999.

Season type ^a	DAU	Units	Season	
			Dates	Length (Days)
General, any legal weapon	1I	34, 35, 36	9/15-10/31	46
			4/15-6/07	54
General, any legal weapon	1J	21, 21A, 28, 36B	9/15-10/31	46
			4/15-6/15	62
General, any legal weapon	4E	29, 30, 30A, 36A, 37, 37A	9/15-10/31	46
			4/15-6/15	62
Pursuit only	1I	34, 35, 36	6/08-7/31	54
Pursuit only	1J	21, 21A, 28, 36B	6/16-7/31	46
Pursuit only	4E	29, 30, 30A, 36A 37, 37A	6/16-7/31	46

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

Table 2. Black bear harvest by season and sex of bear taken in DAU 1I^a since 1989.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1989	8	1	9	8	8	16	16	9	25
1990	14	0	14	7	6	13	21	6	27
1991	13	4	17	7	4	11	20	8	28
1992	17	5	22	5	1	6	22	6	28
1993	13	6	19	10	11	21	23	17	40
1994	16	7	23	18	16	34	34	23	57
1995	9	6	15	19	9	28	28	15	43
1996	9	4	13	8	3	11	17	7	24
1997	8	4	12	7	3	10	15	7	22
1996-1998									
Average	8	3	11	7	3	10	15	6	21
1998	6	2	8	7	2	9	13	4	17
Difference	-2	-1	-3	0	-1	-1	-2	-2	-4

^a Includes Game Management Units 34, 35, and 36.

Table 3. Age distribution of black bear checked from DAU II^a.

Age	1992		1993		1994		1995		1996		1997	
	M	F	M	F	M	F	M	F	M	F	M	F
Unk	2	0	2	3	4	5	4	1	2	0	1	2
Cub	4	1	0	0	0	0	1	0	0	1	0	0
1	1	0	2	2	4	2	4	1	2	0	0	1
2	2	0	1	0	8	4	1	2	3	1	0	0
3	1	0	0	3	2	1	2	3	2	0	4	1
4	3	0	5	2	3	3	4	0	2	1	6	0
5	2	1	1	1	5	0	1	0	3	0	3	2
6	3	2	2	1	1	0	2	0	1	1	1	0
7	0	0	3	0	1	1	2	1	1	1	0	0
8	1	1	2	2	2	1	1	0	0	0	0	0
9	1	0	4	0	1	0	2	2	0	0	0	0
10+	2	1	1	3	3	6	4	5	1	2	0	2
Total	22	6	23	17	34	23	28	15	17	7	15	7

^a Includes Game Management Units 34, 35, and 36.

Table 4. Values of the 1992-2000 management plan criteria for DAU II, 1989-1998.

Year	N	% Females	Median Age		
			Males	Females	Total
1989	26	*38	6	6	6
1990	42	26	6	8	7
1991	28	29	8	*5	7
1992	28	21	4	6	5
1993	40	*43	6	*5	6
1994	57	*40	4	*4	*4
1995	43	35	5	8	5
1996	24	29	4	6	*4
1997	22	32	4	*5	*4
1998	17	24			
1996-1998 Average	30	33			
(Desired Levels)		□35	□4	□6	□5

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

Table 5. Method of harvest of black bear taken in DAU 1I (Units 34, 35, and 36), 1989-1998.

Year	<u>Bait</u>		<u>Hound</u>		<u>Still</u>		<u>Incidental</u>		<u>Other</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F	M	F	M	F
1989	2	0	6	2	3	1	5	5	0	1	16	9
1990	11	2	7	1	6	2	7	6	0	0	31	11
1991	6	3	7	2	2	0	3	1	1	1	19	7
1992	7	1	6	1	2	2	0	0	0	0	15	4
1993	8	5	6	2	3	4	5	5	2	1	24	17
1994	7	5	7	4	9	6	9	7	0	0	32	22
1995	6	2	3	5	3	3	14	5	0	0	26	15
1996	7	2	3	1	0	2	7	2	0	0	17	7
1997	5	2	4	0	2	2	4	3	0	0	15	7
1998	1	0	1	2	5	0	6	2	0	0	13	4

Table 6. Weapon type used to harvest black bear in DAU 1I (Units 34, 35, and 36), 1989-1998.

Year	<u>Rifle</u>		<u>Archery</u>		<u>Muzzleloader</u>		<u>Pistol</u>		<u>Other</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F	M	F	M	F
1989	9	8	5	1	0	0	2	1	0	0	16	10
1990	13	9	15	2	0	0	2	0	0	0	30	11
1991	7	1	9	3	0	1	3	1	0	0	19	6
1992	11	3	4	2	0	0	3	0	0	0	18	5
1993	15	16	4	1	0	0	4	0	0	0	23	17
1994	24	19	4	3	0	0	4	1	1	0	33	23
1995	20	11	3	2	0	0	4	2	0	0	27	15
1996	12	6	1	1	0	0	4	0	0	0	17	7
1997	12	5	0	2	0	0	3	0	0	0	15	7
1998	9	3	3	0	0	0	1	1	0	0	13	4

Table 7. Black bear harvest by season and sex of bear taken in DAU 1J^a since 1989.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1989	17	6	23	10	7	17	27	13	40
1990	24	16	40	16	16	32	40	32	72
1991	26	16	42	18	10	28	44	26	70
1992	26	8	34	8	5	13	34	13	47
1993	24	11	35	24	7	31	48	18	66
1994	26	11	37	31	14	45	57	25	82
1995	25	21	46	14	16	30	39	37	76
1996	25	8	33	18	4	22	43	12	55
1997	19	11	30	12	11	23	31	22	53
1996-1998									
Average	24	9	32	15	7	22	39	15	54
1998	27	7	34	15	5	20	42	12	54
Difference	+ 3	-2	+ 2	0	-2	-2	+ 3	-3	0

^a Includes Game Management Units 21, 21A, 28, and 36B.**Table 8.** Age distribution of black bear checked from DAU 1J^a.

Age	1992		1993		1994		1995		1996		1997	
	M	F	M	F	M	F	M	F	M	F	M	F
Unk	2	1	1	2	1	1	1	0	2	0	1	3
Cub	0	0	0	1	0	0	1	0	0	0	0	1
1	0	0	5	1	10	3	3	2	3	0	5	2
2	8	2	5	1	9	1	8	7	3	0	4	2
3	7	1	15	3	8	2	6	8	9	2	3	2
4	1	1	9	2	11	5	5	2	10	4	3	2
5	0	2	1	1	4	4	3	9	3	1	6	4
6	6	3	1	0	2	1	5	0	5	1	0	0
7	0	0	7	2	0	2	1	0	1	1	2	0
8	1	0	0	1	4	0	1	0	1	1	3	1
9	4	1	0	2	0	0	2	2	1	1	0	1
10+	5	2	4	2	8	6	3	7	5	1	4	4
Total	34	13	48	18	57	25	39	37	43	12	31	22

^a Includes Game Management Units 21, 21A, 28, and 36B.

Table 9. Values of the 1992-2000 management plan criteria for DAU 1J, 1989-1998.

Year	N	% Females	Median Age		
			Males	Females	Total
1989	40	32	4	*4	*4
1990	72	*44	4	6	*4
1991	70	*37	5	6	5
1992	47	28	5	6	6
1993	66	27	*3	*5	*4
1994	82	30	4	*5	*4
1995	76	*49	4	*4	*4
1996	55	22	4	*4	*4
1997	53	*42	5	*4	5
1998	54	22			
1996-1998 Average	54	28			
(Desired Levels)		□35	□4	□6	□5

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

Table 10. Method of harvest of black bear taken in DAU 1J (Units 21, 21A, 28, and 36B), 1989-1998.

Year	Bait		Hound		Still		Incidental		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1989	4	1	11	3	7	7	5	2	0	0	27	13
1990	7	3	15	10	10	6	7	10	0	4	39	33
1991	9	2	14	14	11	7	10	3	0	0	44	26
1992	7	3	19	4	3	5	4	0	0	0	33	13
1993	11	1	15	4	11	6	11	7	0	0	48	18
1994	10	5	24	2	11	6	11	12	0	0	56	25
1995	6	8	9	13	12	8	12	8	0	0	39	37
1996	14	4	14	3	7	2	7	3	1	0	43	12
1997	7	4	9	8	8	2	7	7	0	1	31	22
1998	10	4	14	1	6	3	10	4	2	0	42	12

Table 11. Weapon type used to harvest black bear in DAU 1J (Units 21, 21A, 28, and 36B), 1989-1998.

Year	<u>Rifle</u>		<u>Archery</u>		<u>Muzzleloader</u>		<u>Pistol</u>		<u>Other</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F	M	F	M	F
1989	16	11	5	2	0	0	6	0	0	0	27	13
1990	28	25	7	1	1	0	3	5	0	1	39	32
1991	30	19	4	4	0	0	8	3	2	0	44	26
1992	20	7	8	2	1	0	5	4	0	0	34	13
1993	41	12	5	1	0	0	1	5	1	0	48	18
1994	40	20	9	4	0	0	7	1	0	0	56	25
1995	32	27	4	6	0	0	2	3	0	1	38	37
1996	35	11	6	1	0	0	2	0	0	0	43	12
1997	26	16	4	4	1	0	0	2	0	0	31	22
1998	31	10	8	1	1	1	2	0	0	0	42	12

Table 12. Black bear harvest by season and sex of bear taken in DAU 4E^a since 1989.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1989	16	7	23	4	3	7	20	10	30
1990	18	7	25	6	1	7	24	8	32
1991	7	5	12	5	7	12	12	12	24
1992	10	2	12	0	2	2	10	4	14
1993	11	5	16	11	4	15	22	9	31
1994	11	9	20	10	6	16	21	15	36
1995	19	6	25	7	8	15	26	14	40
1996	14	5	19	3	5	8	17	10	27
1997	18	8	26	1	3	4	19	11	30
1996-1998									
Average	14	7	21	2	5	7	16	12	28
1998	10	8	18	2	6	8	12	14	26
Difference	-4	+ 1	-3	0	+ 1	+ 1	-4	+ 2	-2

^a Includes Game Management Units 29, 30, 30A, 36A, 37, and 37A.

Table 13. Age distribution of black bear checked from DAU 4E^a.

Age	1992		1993		1994		1995		1996		1997	
	M	F	M	F	M	F	M	F	M	F	M	F
Unk	0	0	1	0	2	0	2	2	0	0	0	2
Cub	0	0	1	0	1	1	0	0	0	0	1	0
1	0	0	3	2	5	1	2	0	1	1	0	0
2	0	0	3	1	4	1	1	2	1	0	4	0
3	1	1	7	2	0	4	8	4	3	2	3	2
4	1	0	2	1	4	2	5	1	5	2	3	2
5	3	1	0	0	1	0	4	0	2	0	3	1
6	2	1	2	0	0	1	0	0	3	1	0	0
7	1	0	1	1	1	0	0	1	0	0	3	0
8	0	1	0	0	1	0	0	0	0	0	2	0
9	1	0	0	0	0	0	2	0	0	0	0	0
10+	1	0	2	2	2	5	2	4	2	4	0	4
Total	10	4	22	9	21	15	26	14	17	10	19	11

^a Includes Game Management Units 29, 30, 30A, 36A, 37 and 37A.

Table 14. Values of the 1992-2000 management plan criteria for DAU 4E, 1989-1998.

Year	N	% Females	Median Age		
			Males	Females	Total
1989	30	33	4	*4	*4
1990	32	25	4	*2	*4
1991	24	*50	*2	8	5
1992	14	29	6	6	6
1993	31	29	*3	*3	*3
1994	36	*42	*2	*4	*4
1995	40	35	4	*4	*4
1996	27	*37	4	*4	*4
1997	30	*37	4	*5	*4
1998	26	*54			
1996-1998 Average	28	*42			
(Desired Levels)		□35	□4	□6	□5

* Values do not meet desired criteria established in the 1992-2000 Black Bear Management Plan.

Table 15. Method of harvest of black bear taken in DAU 4E (Units 29, 30, 30A, 36A, 37, and 37A), 1989-1998.

Year	<u>Bait</u>		<u>Hound</u>		<u>Still</u>		<u>Incidental</u>		<u>Other</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F	M	F	M	F
1989	7	1	8	5	3	1	2	3	0	0	20	10
1990	9	3	8	3	5	1	2	1	0	0	24	8
1991	3	2	3	3	3	4	3	2	0	0	12	11
1992	3	1	5	1	0	1	1	0	1	0	10	3
1993	4	5	5	0	1	2	12	2	0	0	22	9
1994	2	2	10	4	3	5	5	4	1	0	21	15
1995	8	2	10	2	3	3	5	7	0	0	26	14
1996	5	3	6	0	4	3	2	3	0	0	17	9
1997	4	5	12	1	1	1	2	4	0	0	19	11
1998	4	6	5	1	2	1	1	6	0	0	12	14

Table 16. Weapon type used to harvest black bear in DAU 4E (Units 29, 30, 30A, 36A, 37 and 37A), 1989-1998.

Year	<u>Rifle</u>		<u>Archery</u>		<u>Muzzleloader</u>		<u>Pistol</u>		<u>Other</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F	M	F	M	F
1989	12	6	5	3	0	0	2	1	0	0	19	10
1990	9	6	9	0	0	0	6	2	0	0	24	8
1991	9	7	2	2	0	0	1	2	0	0	12	11
1992	8	1	0	1	0	0	2	1	0	0	10	3
1993	15	6	3	3	0	0	4	0	0	0	22	9
1994	16	9	5	1	0	2	0	3	0	0	21	15
1995	17	11	6	2	0	0	3	1	0	0	26	14
1996	13	10	3	0	0	0	1	0	0	0	17	10
1997	13	8	3	2	0	0	3	1	0	0	19	11
1998	6	13	3	1	0	0	2	0	1	0	12	14

Table 17. Black bear depredation complaints handled in the Salmon Region, 1989-1998.

DAU	Year									
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
1I	2	11	7	8	22	11	?	?	?	12
1J	0	7	1	1	5	33	6	12	0	11
4E	0	0	0	0	3	20	1	0	0	4
Total	2	18	8	9	30	64	8	14	0	27

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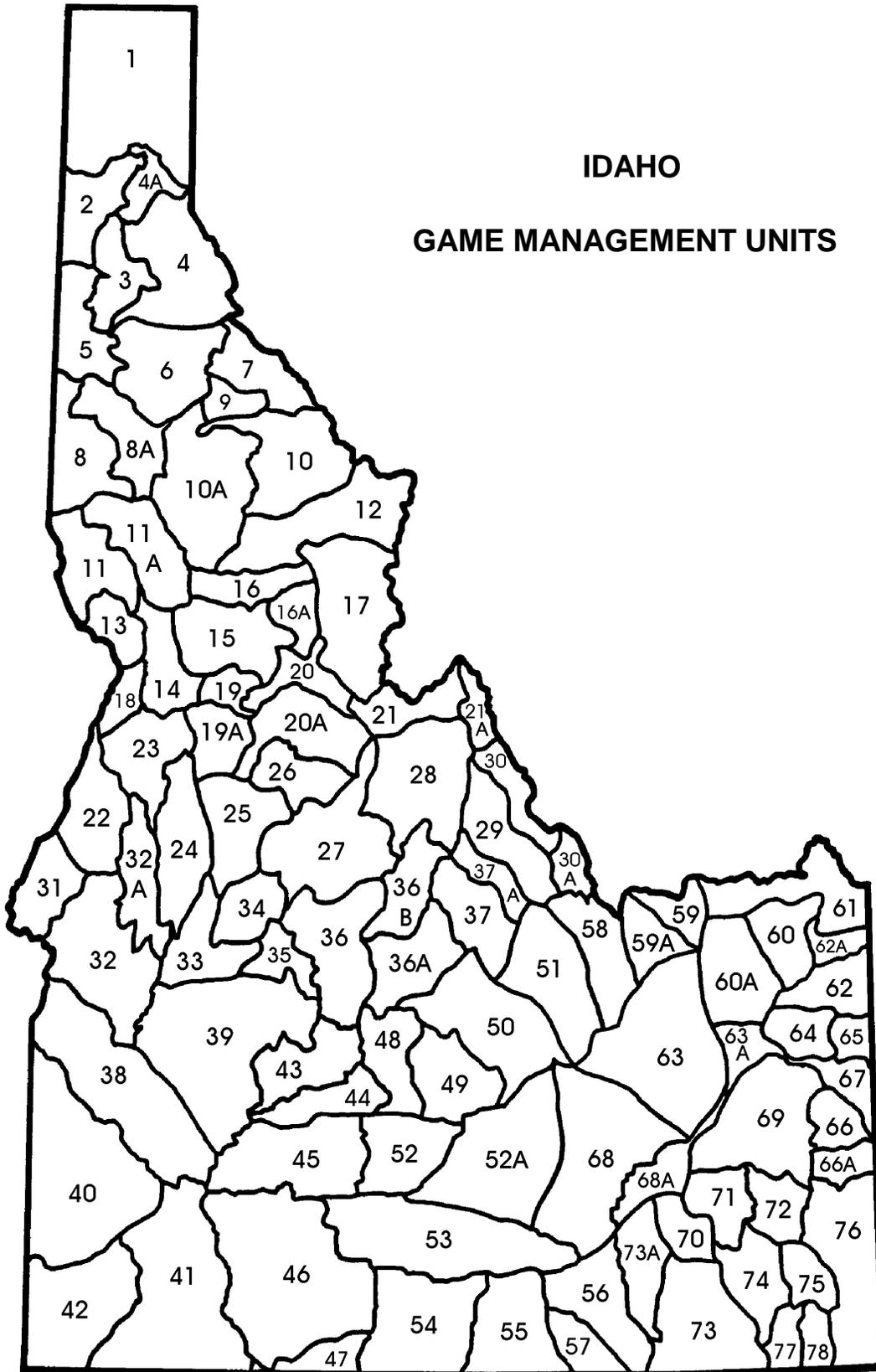
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Tom Parker, Acting Chief
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IDAHO

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.

