

**IDAHO DEPARTMENT OF FISH AND GAME**

**Rod Sando, Director**

**Project W-170-R-24**

**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-24  
**SUBPROJECT:** 1-7                      **STUDY NAME:** Big Game Population Status, Trends,  
**STUDY:** I                                      Utilization and Associated Habitat  
**JOB:** 9    Studies  
**PERIOD COVERED:** July 1, 1999 to June 30, 2000

**BLACK BEAR – STATEWIDE**

**SUMMARY**

The Idaho Department of Fish and Game used two methods to collect harvest information on black bears in 1999: a combination mail/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 31,133 black bear tags was sold to resident and nonresident black bear hunters in 1999. The Department also issued 1,782 baiting permits and sold 3,085 resident and 93 nonresident hound hunter permits in 1999.

Mail/telephone survey results indicate an estimated 12,657 hunters pursued black bears in 1999 an average of 8.3 days per hunter for a total of 104,424 hunter-days.

Successful black bear hunters checked 1,840 black bears at Department regional offices or official checkpoints. Of the black bears harvested, 889 (48%) were taken during the fall season. Males comprised 67% of the spring harvest and 62% of the fall harvest. Most black bears killed during 1999 were taken by still hunters (608). Hunters using bait harvested 393 black bears, hunters using dogs took 344 black bears, and incidental hunters took 467 black bears. Archers killed 179 black bears in 1999. Hunters using guides took 295 black bears; 49% over bait, 25% using dogs, and 14% using still hunting methods.

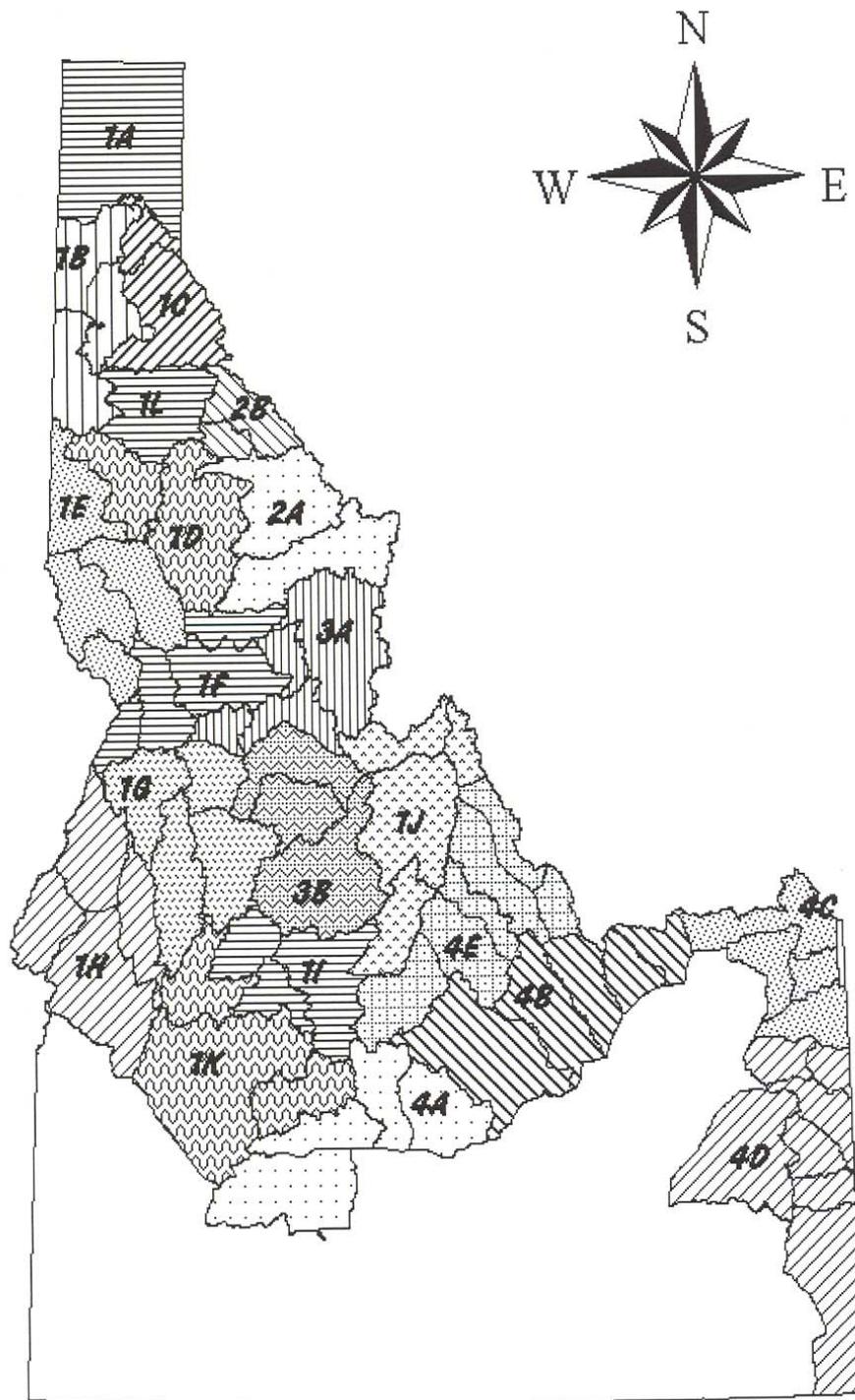


Figure 1. Twenty-one Data Analysis Units for black bear management in Idaho.

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

**STATE:** Idaho                      **JOB TITLE:** Black bear Surveys and Inventories  
**PROJECT:** W-170-R-24  
**SUBPROJECT:** 1                      **STUDY NAME:** Big Game Population Status, Trends,  
Use, and Associated Habitat  
**STUDY:** I  
**JOB:** 9  
**PERIOD COVERED:** July 1, 1999 to June 30, 2000

**BLACK BEAR – PANHANDLE REGION**

**ABSTRACT**

Harvest was near normal for the 1999 reporting period. Spring harvest was slightly above normal while fall harvest was at or below normal. Overall, male harvest was 10% below and female harvest was 3% below the 3-year harvest. The 1999 black bear harvest in the Panhandle totaled 574, with 37% females in the harvest. Only 1 DAU met both black bear management plan objectives for harvest criteria (% females in the harvest and % males 5+ in the male harvest). Of those DAUS that did not meet management criteria, some were above the targets and some were below. Because these criteria reflect new management direction for some of the DAUs, it will take some time to achieve targets in all DAUs. Depredation complaints were down significantly from previous years. This is likely explained by normal berry production in 1999 and the high harvest and natural mortality experienced after the 1998 huckleberry failure.

**AREA 1**

**MANAGEMENT DIRECTION**

The Department will offer a variety of hunting opportunities in Area 1. DAUs within the area include all harvest categories as defined in the 2000-2010 black bear management plan. The "reservoir concept" is not a major influence affecting Area 1. That is, harvest data 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 black bear recovery boundaries near Priest River.

The 2000-2010 Black bear Species Management Plan developed desired harvest rates for each DAU based on biological and social considerations. Harvest rates will be monitored using age- and sex-based measures to determine whether goals are being achieved in each DAU. These criteria are the 3-year running average of percent females and the percent males five years or older. Harvest rates are categorized at light (<30% females, >35% males 5 years or older), moderate (30-40% females, 25-35% males 5 years or older, and heavy (>40% females and <25% males 5 years or older). Desired harvest rates for the Panhandle Region are listed in Table 1. These criteria are effective

beginning with the fall 1999 hunting season. A summary of the 1999 seasons for the Panhandle Region can be found in Table 2.

## DAU 1A (GMU 1)

### ABSTRACT

Reported harvest of black bear in DAU 1A was 183 during 1999. The percentage of females in the harvest was 36%, and 50% of the males in the harvest were 5+ years old.

### MANAGEMENT DIRECTION

DAU 1A will be managed to maintain the light harvest targets of <30% females in the harvest and >35% of the males  $\geq$  5 years old. This DAU currently exceeds the female harvest criteria (3-yr average = 34%), but is within the desired level of male harvest. Changes in season structure or length may be necessary if the female harvest continues to exceed criteria.

### BACKGROUND

DAU 1A is one of 12 DAUs comprising Management Area 1. Black bear management is heavily influenced by grizzly black bear management needs in this DAU, as it includes parts of the Selkirk and Cabinet-Yaak Grizzly Black bear Recovery areas. Consequently this DAU has been closed to use of bait since 1984 and to the use of hounds since 1988. In 1991 a small controlled hunt allowing use of hounds was allowed in a portion of DAU 1A outside of these recovery areas. This area was increased and the number of permits increased for the 2000 season. During 1993 the season was shortened from 108 to 80 days and has since been increased to the current 94 days (Table 2).

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 183 black bears checked during 1999 was 29% below that of the past 3-year average (Table 4). The spring 1999 kill was near normal, but the fall kill was low. Berry production was average in 1999, unlike 1997 and 1998 when berry crops were poor.

### Sex Ratio/Age Structure

The percentage of females in the 1999 harvest was 36% and the 3-year average was 34%. The percentage of males  $\geq$  5 years old was 50% in 1999 and the 3-year average was 43%. The female kill exceeds the criteria for light harvest (Table 6).

### Method of Take

Seventy-nine percent of the 1999 black bear harvest in DAU 1A was by hunters specifically seeking and stalking black bear (Table 7). 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 8).

## DEPREDATIONS

Depredations have been a significant problem in DAU 1A, largely because of sanitation problems in the Priest Lake area. However only 14 complaints were recorded in 1999, significantly down from previous years (Table 3). Steps have been taken to address some of these sanitation issues at county dump sites and state parks, but problems will likely persist. Berry production was normal in 1999. A very poor berry crop in 1998 was responsible for the extremely high number of problems that year. 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 black bears in the Selkirk and Cabinet/Yaak Recovery Areas.

## MANAGEMENT IMPLICATIONS

This population is below the desired level for the percentage of females in the harvest and within the desired level for mature males ( $\geq$  5 years old). If the percent of females remains above the desired category, it may be necessary to restructure seasons to attain the goal. The black bear management plan identifies steps to take in order to address this. Baiting is not allowed in DAU 1 and the hound season is controlled. Therefore changes in either the spring or fall seasons would need to be altered in order to change harvest characteristics.

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

### ABSTRACT

Reported harvest of black bear in DAU 1B was 114 during 1999, a 21% decrease over the 1996-1998 average. The percent of females in the harvest was 39% and the males 5+ years old made up 30% of the male harvest.

### MANAGEMENT DIRECTION

To address depredation concerns, DAU 1B will be managed to maintain the heavy harvest targets of <25% age 5+ black bears in the male harvest and >40% females in the total harvest. Currently the harvest does not meet these objectives. Current season structure could be altered to achieve the desired harvest strategy.

### BACKGROUND

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

### HARVEST CHARACTERISTICS

#### Mandatory Check

The 1999 harvest of 114 black bears is 21% below that for the previous 3 years, with significant decreases in both the spring and fall seasons (Table 9).

#### Sex Ratio/Age Structure

The percentage of females in the 1999 harvest was 39% and the 3-year average was 39%. The percentage of males  $\geq$  5 years old was 30% in 1999 and the 3-year average was 29%. Neither of these measures meets the heavy harvest targets in the 2000-2010 black bear management plan (Table 11).

#### Method of Take

Use of baiting and hounds is substantial in DAU 1B. Forty-six percent of the black bears harvested in this DAU are taken with one of these aids (Table 12). Still hunting and incidental harvest accounted for 53% of the harvest.

## Weapon

Eighty-five percent of the black bears taken in DAU 1B are taken with a rifle (Table 13).

## DEPREDATIONS

Seven depredation complaints were recorded in 1999, significantly down from previous years. The very high harvest in 1998 and the normal berry production likely explain this decrease.

## 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

Neither of the harvest criteria are being met in this DAU. Harvest may need to be increased to achieve desired harvest levels as defined in the 2000-2010 Black bear Management Plan.

## DAU 1C (GMUS 4 AND 4A)

### ABSTRACT

Reported harvest of black bear in DAU 1C was 132 during 1999, up 18% from the 3-year average. Females comprised 35% of the harvest and males 5+ years old made up 32% of the male harvest.

### MANAGEMENT DIRECTION

To test the validity of the black bear harvest indicators, DAU 1C will be managed to maintain the heavy harvest targets of <25% age 5+ black bears in the male harvest and >40% females in the total harvest. The DAU meets the criteria for females, but does not meet the male harvest criteria. Seasons have been lengthened in 2000 to achieve the increased male harvest.

### 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 during the early 1900s. It is a popular hunting area for Coeur d'Alene and Silver Valley big game hunters. Road densities are moderate to very high.

## HARVEST CHARACTERISTICS

### Mandatory Check

The 1999 harvest of 132 black bears is 18% higher than the 1996-1998 average, but below the record harvest of 143 in 1998 (Table 14).

### Sex Ratio/Age Structure

The percentage of females in the 1999 harvest was 35% and the 3-year average was 35%. The percentage of males  $\geq 5$  years old was 40% in 1999 and the 3-year average was 32%. The female harvest is within the “desired” category of the 2000-2010 Black bear Management Plan, but the male harvest is below (Table 16).

### 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. Only 7% of the harvest was with hounds in 1998. Hound hunting harvest increased in 1999 to 25% (Table 17).

### Weapon

Over 90% of the black bears killed in DAU 1C are taken with rifles (Table 18).

## DEPREDATIONS

DAU 1C has historically had few black bear depredations despite the high human presence found in the Silver Valley (Table 3). Twenty-four complaints were recorded in 1999, relatively low compared to previous years, but the highest in the region this year.

## DOG TRAINING SEASONS

The 1999 dog training season in DAU 1C was May 16-July 31.

## MANAGEMENT IMPLICATIONS

The percentage of females in the harvest is meeting target conditions in this DAU. Changes in the 2000 season may increase male harvest, thereby achieving the heavy harvest category for this DAU.

## DAU 1L (GMU 6)

### ABSTRACT

Harvest of black bears in DAU 1L was 84 during 1999, up 5% from the previous 3-year average. Females made up 38% of the harvest and 5+ males comprised 51% of the male harvest.

## MANAGEMENT DIRECTION

DAU 1L will be managed to maintain the moderate harvest targets of 25-35% age 5+ black bears in the male harvest and 30-40% females in the total harvest. Harvest criteria falls within the desired category for both females and males. Current season structure appears to be meeting the desired harvest strategy, but there is significant fluctuation from year to year. Baiting is now allowed within this DAU; however, significant changes in harvest are not anticipated due to this regulation change. Male age structure has tended toward younger black bears over the past 3 years. This criterion should be watched to see if the trend continues.

## 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

## 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 19). However harvest the past 3 years appears to have leveled out at close to 80-85 black bears.

### Sex Ratio/Age Structure

The percentage of females in the 1999 harvest was 38% and the 3-year average was 36%. The percentage of males  $\geq$  5 years old was 47% in 1999 and the 3-year average was 35%. This is within the “desired” category of the 2000-2010 Black bear Management Plan (Table 21).

### Method of Take

Roughly 75% of the black bear kill in this DAU is from still and incidental hunters (Table 22), the remainder being almost entirely with use of hounds. No baiting was allowed in this DAU during 1999.

### Weapons

Virtually all black bears taken in this DAU are taken with a rifle (Table 23).

## DEPREDACTIONS

One depredation complaint was received in this DAU during 1999.

## DOG TRAINING SEASONS

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

## MANAGEMENT IMPLICATIONS

This DAU should be watched in the next few years to see if the old age component of the population continues to decline. The new regulation allowing the use of bait should be evaluated depending on the trend of this segment of the population.

## AREA 2

### DAU 2B (GMUS 7 AND 9)

#### ABSTRACT

Harvest of black bears in DAU 2B was 61 during 1999, 5% above the previous 3-year average. Females comprised 38% of the harvest and males 5+ years old made up 51% of the male harvest.

#### MANAGEMENT DIRECTION

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

#### BACKGROUND

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

#### HARVEST CHARACTERISTICS

##### Mandatory Check

Harvest in this DAU is relatively low, and quite variable. There was little change from the 3-year average during 1999 (Table 24).

### Sex Ratio/Age Structure

The percentage of females in the 1999 harvest was 38% and the 3-year average was 30%. The percentage of males  $\geq 5$  years old was 51% in 1999 and the 3-year average was 40%. This is within the “desired” category of the 2000-2010 Black bear Management Plan (Table 26).

### Method of Harvest

There was an increase in the percent of black bears killed using hounds in 1999. Nearly 15% of the black bears were killed using hounds, compared to only 5-7% in previous years (Table 27).

### Weapon

Over 85% of the black bears taken in this DAU are killed with a rifle (Table 28).

## DEPREDATIONS

Depredations are virtually nonexistent in this DAU (Table 2) due to the lack of private property. No depredation complaints were recorded in this DAU in 1999.

## DOG TRAINING SEASONS

The dog training season in this DAU was July 1-July 31.

## MANAGEMENT IMPLICATIONS

Season changes initiated in 1993 have 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, but contains a higher percent of old males than the target for the desired moderate harvest levels. Outfitters in this DAU have recently focused more attention on black bear hunting opportunities.

Table 1. Desired harvest categories and harvest criteria for DAUs 1A, 1B, 1C, 1L, and 2B.

DAU	Desired Harvest Category	Harvest Criteria	
		% Females	% Males $\geq 5$
1A	Light	<30%	>35%
1B	Heavy	>40%	<25%
1C	Heavy	>40%	<25%
1L	Moderate	30-40%	25-35%
2B	Moderate	30-40%	25-35%

Table 2. Summary of 1999 seasons by method for DAUs 1A, 1B, 1C, 1L, and 2B.

Season Type <sup>a</sup>	DAU	Units	Season	
			Dates	Length (Days)
General, any legal weapon	1A <sup>b</sup>	1	9/15-10/31	47
			4/15-5/31	47
Controlled, any legal weapon <sup>c</sup>			9/15-10/9	25
General, any legal weapon	1B <sup>d</sup>	2, 3, 5	9/15-10/31	47
			4/15-5/15	31
General, any legal weapon	1C <sup>d</sup>	4, 4A	9/15-10/31	47
			4/15-5/15	31
Pursuit			5/16-7/31	77
General, any legal weapon	1L <sup>d,e</sup>	6	9/15-10/31	47
			4/15-5/15	31
Pursuit			5/16-7/31	77
General, any legal weapon	2B	7, 9	8/30-10/31	62
			4/15-6/30	78
Pursuit			7/1-7/31	31

<sup>a</sup> Any black bear is legal except female black bear accompanied by young.

<sup>b</sup> Dogs prohibited, bait prohibited.

<sup>c</sup> Dogs allowed, bait prohibited, 10 permits, for a portion of Unit 1.

<sup>d</sup> Dogs prohibited 4/15-4/30.

<sup>e</sup> Bait prohibited.

Table 3. Black bear depredation complaints handled in the Panhandle Region, 1991-1999.

DAU	Year								
	1991	1992	1993	1994	1995	1996	1997	1998	1999
1A	45	13	6	18	38	18	66	167	14
1B	13	3	4	10	18	22	34	103	7
1C	4	1	2	0	5	2	4	46	24
1L	1	1	1	0	0	0	0	17	1
2B	0	1	0	0	0	0	0	7	0

Table 4. Black bear harvest by season and sex of black bear taken in DAU 1A(GMU 1) 1996-1999

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1996	102	49	151	41	28	<sup>a</sup> 70	143	77	<sup>a</sup> 221
1997	64	26	90	82	60	143	<sup>a</sup> 146	86	233
1998	75	29	104	140	69	<sup>a</sup> 210	215	98	<sup>a</sup> 314
Ave.	80	35	115	88	52	141	120	87	256
1999	76	37	113	40	28	<sup>b</sup> 70	116	65	<sup>b</sup> 183
Change	-5%	+6%	-2%	-55%	-46%	-50%	-3%	-25%	-29%

<sup>a</sup> Totals include one black bear, sex unknown.

<sup>b</sup> Totals include two black bears, sex unknown.

Table 5. Age distribution of black bears, DAU 1A (GMU 1), 1996-1999. Includes only black bear with both known age and sex.

Age	<u>1996</u>		<u>1997</u>		<u>1998</u>		<u>1999</u>	
	M	F	M	F	M	F	M	F
1	9	3	18	8	1	0	8	6
2	34	14	27	10	10	1	13	3
3	25	7	26	22	4	3	17	7
4	14	12	16	3	10	4	13	4
5	18	4	15	8	3	0	15	4
6	10	5	7	5	3	0	3	0
7	6	5	7	4	1	5	6	2
8	10	5	3	5	3	0	7	4
9	1	1	7	0	2	1	7	2
10+	11	21	11	15	11	6	12	23
Total	138	77	137	80	48	20	101	55

Table 6. 2000-2010 Black bear plan management values and criteria for DAU 1A, (GMU 1), 1997-1999.

Year	N	Females	Males $\geq 5$
1997	233	37%	36%
1998	314	31%	48%
1999	183	36%	50%
3-year Average		34%	43%
Desired levels		<30%	>35%

Table 7. Method of harvest of black bear taken in DAU 1A (GMU 1), 1996-1999

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
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
1999	0	0	0	0	4	0	101	43	1	13	15	0	2	3	1	116	65	2

Table 8. Weapon type used to harvest black bear in DAU 1A (GMU 1) 1996-1999.

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
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
1999	109	62	1	3	0	0	1	3	2	1		1	116	65	2

Table 9. Black bear harvest by season and sex of black bear taken in DAU 1B (GMUs 2, 3, and 5) 1996-1999.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1996	29	15	44	38	26	64	67	41	108
1997	19	15	<sup>a</sup> 35	51	32	<sup>a</sup> 84	70	47	<sup>b</sup> 119
1998	42	24	66	79	59	<sup>a</sup> 139	121	83	<sup>a</sup> 205
Ave.	30	18	48	56	39	96	86	57	144
1999	29	12	41	40	33	73	69	45	114
Change	-3%	-33%	-15%	-29%	-15%	-24%	-20%	-21%	-21%

<sup>a</sup> Total includes one black bear, sex unknown.

<sup>b</sup> Total includes two black bears, sex unknown.

Table 10. Age distribution of black bears checked from DAU 1B (GMUs 2, 3, 5), 1996-1999. Includes only black bear with both known age and sex.

Age	<u>1996</u>		<u>1997</u>		<u>1998</u>		<u>1999</u>	
	M	F	M	F	M	F	M	F
1	6	2	18	6	0	1	8	3
2	17	4	10	6	6	3	10	2
3	6	7	16	12	0	1	23	10
4	14	5	7	2	10	6	3	5
5	2	0	7	2	2	0	9	3
6	5	5	2	1	2	3	2	4
7	1	2	2	4	1	0	3	4
8	3	4	1	3	1	1	3	0
9	0	2	2	0	1	0	1	1
10+	5	8	1	8	4	7	1	9
Total	59	39	66	44	27	22	63	41

Table 11. 2000-2010 Black bear plan management values and criteria for DAU 1B (GMUs 2, 3, and 5), 1996-1999.

Year	N	Females	Males $\geq 5$
1997	119	39%	23%
1998	205	40%	41%
1999	114	39%	30%
3-year Average		39%	29%
Desired levels		>40%	<25%

Table 12. Method of harvest of black bear taken in DAU 1B (GMUs 2, 3, 5), 1996-1999.

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
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
1999	14	11	0	17	11	0	23	18	0	14	5	0	1	0	0	69	45	0

Table 13. Weapon type used to harvest black bear in DAU 1B (GMUs 2, 3, 5), 1996-1999.

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
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
1999	55	41	0	10	2	0	1	0	2	2	0	1	0	69	45	0

Table 14. Black bear harvest by season and sex of black bear taken in DAU 1C (GMUs 4, 4A) 1996-1999.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1996	13	4	17	41	27	68	54	31	85
1997	17	3	20	50	39	<sup>a</sup> 0	67	42	<sup>a</sup> 110
1998	40	14	54	56	33	89	96	47	143
Ave.	23	7	30	49	33	82	72	40	112
1999	23	20	<sup>a</sup> 4	62	26	88	85	46	<sup>a</sup> 32
Change	0%	+186%	+47%	+27%	-21%	+7%	+18%	+15%	+18%

<sup>a</sup> Total includes one black bear, sex unknown.

Table 15. Age distribution of black bears checked from DAU 1C, (GMUs 4, 4A), 1996-1999. Includes only black bear with both known age and sex.

Age	<u>1996</u>		<u>1997</u>		<u>1998</u>		<u>1999</u>	
	M	F	M	F	M	F	M	F
1	11	4	20	10	0	1	6	2
2	18	6	10	4	3	0	17	5
3	9	5	18	6	3	0	16	8
4	10	6	3	3	9	2	6	2
5	1	2	3	4	0	2	11	8
6	1	0	0	0	3	0	2	3
7	1	3	3	2	0	1	7	3
8	1	2	1	1	3	0	3	0
9	0	0	0	2	1	0	2	7
10+	2	1	4	6	3	0	5	4
<b>Total</b>	<b>56</b>	<b>30</b>	<b>62</b>	<b>39</b>	<b>25</b>	<b>6</b>	<b>75</b>	<b>42</b>

Table 16. 000-2010 Black bear plan management values and criteria for DAU 1C, (GMUs 4, 4A), 1996-1999.

Year	N	Females	Males $\geq 5$
1997	110	38%	18%
1998	143	33%	40%
1999	132	35%	40%
3-year Average		35%	32%
Desired levels		>35%	<25%

Table 17. Method of harvest of black bear taken in DAU 1C (GMUs 4, 4A), 1996-1999.

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
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
1999	6	7	0	24	8	1	31	15	0	21	16	0	3	0	0	85	46	1

Table 18. Weapon type used to harvest black bear in DAU 1C (GMUs 4, 4A), 1996-1999.

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
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
1999	78	42	1	1	3	0	0	4	1	2	0	0	85	46	1

Table 19. Black bear harvest by season and sex of black bear taken in DAU 1L (GMU 6), 1996-1999.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1996	19	6	25	19	18	37	38	24	62
1997	14	9	23	30	27	57	44	36	80
1998	34	8	42	38	19	57	72	27	99
Ave.	22	8	30	29	21	50	51	29	80
1999	25	16	41	27	16	43	52	32	84
Change	+14%	+100%	+37%	-7%	-24%	-14%	+2%	+10%	+5%

Table 20. Age distribution of black bears checked from DAU 1L (GMU 6), 1996-1999. Includes only black bear with both known age and sex.

Age	<u>1996</u>		<u>1997</u>		<u>1998</u>		<u>1999</u>	
	M	F	M	F	M	F	M	F
1	2	1	12	6	0	0	0	0
2	11	5	6	4	5	1	7	2
3	2	3	9	6	3	1	15	9
4	3	2	5	1	6	3	4	1
5	2	0	3	3	0	0	8	5
6	5	0	2	1	4	1	2	0
7	2	1	1	4	0	0	3	4
8	2	2	0	1	1	0	1	1
9	0	0	0	1	0	0	3	1
10+	4	7	3	5	3	0	6	7
Total	37	25	44	32	22	6	49	30

Table 21. 2000-2010 Black bear plan management values and criteria for DAU 1L (GMU 6), 1996-1999.

Year	N	Females	Males $\geq 5$
1997	80	45%	20%
1998	99	27%	36%
1999	84	38%	47%
3-year Average		36%	35%
Desired levels		30-40%	25-35%

Table 22. Method of harvest of black bear taken in DAU 1L (GMU 6), 1996-1999.

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
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
1999	0	0	0	13	8	0	28	13	0	11	11	0	0	0	0	52	32	0

Table 23. Weapon type used to harvest black bear in DAU 1L (GMU 6), 1996-1999.

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
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
1999	50	30	0	1	1	0	0	0	1	1	0	0	52	32	0

Table 24. Black bear harvest by season and sex of black bear taken in DAU 2B (GMUs 7, 9) 1996-1999.

Year	<u>Spring</u>			<u>Fall</u>			<u>Entire Season</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1996	41	6	47	4	6	10	45	12	57
1997	25	5	30	8	6	14	33	11	44
1998	38	12	50	16	8	24	54	20	74
Ave.	35	8	42	9	7	16	44	14	58
1999	28	14	42	10	9	19	38	23	61
Change	-20%	+75%	0%	+11%	+28%	+19%	-14%	+64%	+5%

Table 25. Age distribution of black bears checked from DAU 2B (GMUs 7, 9), 1996-1999. Includes only black bear with both known age and sex.

Age	<u>1996</u>		<u>1997</u>		<u>1998</u>		<u>1999</u>	
	M	F	M	F	M	F	M	F
1	0	0	5	1	0	0	1	0
2	12	4	6	0	5	0	0	0
3	2	1	10	1	7	2	9	3
4	9	4	2	2	4	2	7	3
5	7	0	2	1	1	1	3	4
6	1	0	1	0	2	2	5	1
7	3	1	2	0	5	1	1	0
8	6	1	0	0	2	0	1	1
9	0	1	0	0	0	0	3	2
10+	4	0	3	2	2	0	5	5
Total	44	12	31	7	28	8	35	19

Table 26. 2000-2010 Black bear plan management values and criteria for DAU 2B, (GMUs 7, 9), 1996-1999.

Year	N	Females	Males $\geq 5$
1997	44	25%	26%
1998	74	27%	43%
1999	61	38%	51%
3-year Average		30%	40%
Desired levels		30-40%	25-35%

Table 27. Method of harvest of black bear taken in DAU 2B (GMUs 7, 9), 1996-1999.

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
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
1999	10	6	0	7	5	0	12	3	0	9	9	0	0	0	0	38	23	0

Table 28. Weapon type used to harvest black bear in DAU 2B (GMUs 7, 9), 1996-1999.

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
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
1999	36	18	0	1	2	1	1	0	2	0	0	38	23	0

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

**STATE:** Idaho                      **JOB TITLE:** Black bear Surveys and Inventories  
**PROJECT:** W-170-R-24  
**SUBPROJECT:** 2                      **STUDY NAME:** Big Game Population Status,  
**STUDY:** I                                      Trends, Use and Associated  
**JOB:** 9    Habitat Studies  
**PERIOD COVERED:** July 1, 1999 to June 30, 2000

**BLACK BEAR – CLEARWATER REGION**

**ABSTRACT**

Reported harvest during 1999 for the Clearwater Region was 604 black bears, a 10% decrease from 1998 but a 16% increase from the previous 3-year average of 521 black bears. Harvest in 1998 and 1999 was higher than ever recorded before in the Clearwater Region. Total harvest by DAU during 1999 was 1D-110, 1E-88, 1F-60, 2A-259, and 3A-87.

The 1992-2000 Black bear Management Plan values for the median age criteria were met for several DAUs during 1998 . The 2000-2010 criteria were met in all DAUs for objectives outlined, but age data were not available for 1999. Since the 1993 regulation changes, much of the harvest effort has changed from spring to fall; therefore, except for DAU 2A, baiting has been replaced by incidental and still hunting as the most popular techniques used region-wide. Due to the intensive harvest efforts, increased season lengths, and bag limits in 1999, DAU 2A constituted 43% of the regional harvest. Seventy-three percent of harvested black bears were killed over bait in the spring. The rest of the region used bait 14% of the time, hounds 20%, still hunting 32%, and incidental 34%. 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. Harvest criteria were exceeded in all 4 of the 4 variables in 1992. In 1993 seasons were changed to reduce the harvest of black bears in this DAU. The regulation changes apparently were successful in reducing harvest by an average of 16% over the following 3 years. However, from 1996-1998, harvest rebounded to an average of 123 and leveled off during 1999 to 110, which was about the same or

higher than prior to the regulation change. When analyzed by season and method, most harvest during 1999 occurred in the fall (84%), by still hunters (44%) and incidental hunters (36%). During 1992 most harvest occurred during the spring season (66%) by bait hunters (44%). High road densities have allowed hunters to access most of the available black bear habitat.

## MANAGEMENT DIRECTION

DAU 1D has historically received intensive black bear harvest. 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 black bears being shot by hunters as a result of fall harvest and food availability. The population will be stabilized through regulation changes if necessary.

## BACKGROUND

Historically season lengths in DAU 1D have been relatively long, becoming more restrictive in recent years. The 1992 season length was 107 days with a 2-week pursuit season. The season length under the 1992-2000 Black bear Management Plan was reduced to 62 days, with a 77-day pursuit season. No changes in this DAU were included in the 2000-2010 Black bear Plan. The fall season was extended in 1997 to a total season length of 78 days (Table 1). No season changes occurred during 1999. Black bear baiting is not allowed.

Mixed land ownership and high road densities on U.S. Forest Service, Idaho Department of Lands, private timber company, and small private landholdings 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 black bears.

## POPULATION SURVEYS

Bait station surveys have not been conducted in DAU 1D since 1996 (Table 2). This technique is being evaluated for its effectiveness in monitoring population trends.

## HARVEST CHARACTERISTICS

During 1999, 110 black bears were harvested in DAU-1D, a decrease of 11% from the previous 3-year average (Table 3). About 30% of the black bears were females. Most black bears (74%) were harvested during the fall season. This is consistent with 1993-1998 harvest, but a reversal from 1990-1992 when spring harvest predominated. In 1992 age distribution for harvested animals was skewed to younger black 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 1995-1998 indicated that all criteria were again exceeded (Table 5). The 1998 age data criteria were not met again except for the percent adult males, which indicated a moderate harvest level. The harvest age data were not available for 1999.

The single method of harvest most preferred by hunters in 1999 was still hunting, accounting for 44% of the harvest, followed by incidental (36%) (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 1993-1999, archery comprised only 3% of the harvest, probably a result of baiting restrictions (Table 7).

### DEPREDATIONS

Six reported black bear depredations occurred in DAU 1D in 1999, decreasing from 9 complaints in 1998 (Table 8). Poor berry season contributed to increased problems in 1998.

### DOG TRAINING SEASONS

An 11-week dog training season from 16 May-31 July was allowed in DAU 1D during 1999.

### MANAGEMENT IMPLICATIONS

According to new management criteria, black bears were moderately 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. Likely due to the berry crop failure, black bears in this DAU and surrounding DAUs traveled more in search of food and older black bears were harvested at a higher rate than normal.

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

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

### ABSTRACT

Hunters in DAU 1E harvested 88 black bears during 1999, a 28% increase over the previous 3-year average, and the highest harvest recorded. Even so only 36% were females. Sixty-three percent of black bears harvested were killed in the fall, 45% of which were killed by incidental hunters.

## MANAGEMENT DIRECTION

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

## BACKGROUND

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

The climate in this DAU ranges from hot and arid along the river breaks, to cooler and moist in areas receiving more rainfall and snow at higher elevations. The 1999 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 during July 1999 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. The trend has been upward in visitation rates since 1993 (Table 2). Transects were not conducted in 1998.

## HARVEST CHARACTERISTICS

There were 88 black bears harvested in DAU 1E during 1999, the highest harvest ever recorded; 63% were taken in the fall (Table 9). Adult male age criteria were in the moderate harvest category and the percent females harvested was 36% in 1998 (Tables 10 and 11). The most effective method of harvest was incidental hunting, and accounted for 39% of the harvest (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).

## DEPREDACTIONS

Most of the land in this DAU is privately owned. Ten depredation complaints were recorded during each of the last 3 years.

## 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 black bear habitats are isolated. Consequently most harvest occurs along major road, river, and creek corridors at higher elevations. Many of the young black bears harvested are probably dispersing to new territories, with adult black bears using better quality habitats away from the roads. It is likely that without much road access, harvest will continue to reflect young dispersing black bears. Harvest was 36% female and may indicate that the productive elements of the population (females) were usually selecting more isolated areas, thus reducing the likelihood of mortality. The majority of black bears in any cohort being harvested in this DAU historically are 1- and 2-year-old dispersing males.

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

### ABSTRACT

Hunters in DAU 1F harvested 60 black bears during last year, a 40% decrease from 1996-1998 average. Most black bears (58%) 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 hound (33%) and by use of bait (27%) while using a rifle (92%) or bow (6%). The 1999 age data were not available. The 1998 age data indicate a moderately harvested population, despite poor quality fall foods and increased harvest. A portion of the DAU in Unit 15 was closed to harvest for research purposes.

## MANAGEMENT DIRECTION

Prior to 1993 black bear harvest had increased in DAU 1F, probably as a result of increased road densities in previously 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 black bear harvest, improve black bear population demographics, and maintain hunting opportunity with a variety of hunting techniques. The new black bear plan for 2000-2010 calls for maintaining current harvest levels. Due to research being conducted in this DAU, a portion of Unit 15 is now closed to harvest of black bears, a possible reason for the 40% decline in harvest this year.

## BACKGROUND

Under the 2000-2010 Black bear Management Plan, the units and their seasons in DAU 1F were similar to the last black 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 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 black bears.

### POPULATION SURVEYS

Bait station surveys were conducted during 1999 for the elk productivity research study and tetracycline baits were placed in the field. Data were analyzed for trails and open and closed roads. In general trails and closed roads received more visitations than did open roads. Sixty-five transects were surveyed and 98 of the 325 sites were visited by black bears, resulting in a 30.2% visitation rate (Table 2).

### HARVEST CHARACTERISTICS

There were 60 black bears harvested in DAU 1F during 1999, 58% during the fall. Females comprised 38% of the harvest in DAU 1F. Management objectives under the new plan indicate moderate harvest (Tables 15 and 16). The most frequent methods of harvest were hound (33%), followed by the use of baiting (27%), (Table 17). Rifle was the most frequent (92%) weapon type (Table 18).

### DEPREDATIONS

One depredation complaint was recorded for this DAU during 1999, down 17 since 1998 when there was poor fall food production.

### DOG TRAINING

Dog training season ran from 16 May to 31 July 1999 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 black bear harvest criteria indicate moderate-high harvest levels, the high quality black bear habitat in this DAU should allow black bear populations to be maintained at desired levels in reserve and 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. The closure of the northern portion of Unit 15 has had an impact on the amount of incidental harvest, as well as overall harvest.

## AREA 2

### DAU 2A (GMUS 10, 12)

#### ABSTRACT

During 1999, 259 black bears were harvested in DAU 2A, an increase of 40% over the previous 3-year average. Of these, 39% were females. Eighty-three percent were harvested during the spring season. Bait hunting accounted for 59% of the harvest, rifle for 76%, and archery 19%. This was the second 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. 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 black bears. Additionally, tetracycline baits may allow calculation of a population estimate for this DAU over time. The bag limit was increased to 2 black bears a year to take advantage of the high black bear numbers and enhance hunter opportunity.

#### BACKGROUND

DAU 2A probably contains the most productive black 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 black bear populations below achievable levels.

#### POPULATION SURVEYS

Intensive bait station surveys have been conducted since 1997 as part of the elk productivity research study. The extensive efforts included use of tetracycline baits for determining population size, and intensive overall efforts to determine trends (Table 2). Forty-seven transects and 235 sites were sampled, with a visitation rate of 36.2% in 1999. In general the sites on closed roads and trails received higher visitation rates than those on open roads. Using these techniques no discernable difference was noted between years despite intensified harvest.

#### HARVEST CHARACTERISTICS

During 1999, 259 black bears were harvested in DAU 2A, an increase of 41% over the previous 3-year average. Eighty-three percent of these black bears were harvested during spring (Table 19). Of the black bears harvested, 39% were females. 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). Age structure of the harvest increased in 1998 along with the increase in overall harvest. Although only spring age data are available for 1999, it is clear that an age class failure due to poor huckleberry crops in 1998 resulted in increased age structure of the harvest in 1999.

Hunting over bait accounted for 59% of the harvest in DAU 2A, followed by incidental (18%), and hounds (16%) (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. Only 2 complaints were recorded for 1999.

#### DOG TRAINING SEASONS

A 1-month dog training season occurred during 1999 from 1 July through 31 July.

#### MANAGEMENT IMPLICATIONS

DAU 2A receives moderate hunting pressure because of its mostly unroaded habitats, public land, and healthy black bear populations. Harvest is moderate in the male component, with a median age of 4 years in 1998 and 39% 5+-year-old males. The adult female segment remains secure in the unroaded segments of the DAU; however, harvest on the female segment has increased since 1998.

DAU 2A has a potential for high black bear numbers because of the quality habitat. Harvest was reduced dramatically from 1993-1996 under the old black bear plan, but increased since 1996 to levels higher than occurred prior to the season changes. Because black bear populations appear to be very healthy, an opportunity to harvest more black bears became apparent and most of the season length was extended to the end of June for the spring hunt and to the end of big game season in the fall. Harvest doubled in 1998 and remained at record high harvest in 1999.

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 was warranted. Although harvest doubled, the age structure indicates moderate harvest levels. Because of a drop in productivity as a result of the 1998 huckleberry failure, the age structure will be skewed until the pulse of yearlings is available in 2001 as a result of synchronous breeding in 1999.

## AREA 3

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

#### ABSTRACT

During 1999, 87 black bears were reported harvested in DAU 3A, about 42% more than the previous 3-year average. Of these, 26% 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 43% of the black bears were harvested during the fall. Most black 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. The bag limit for this DAU was doubled for fall 1999 to take advantage of high black bear numbers and to increase opportunity.

#### BACKGROUND

Seasons have historically been 152 days long in DAU 3A but were reduced to 94 days beginning in 1993, then increased to 109 days in 1996 (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 black bear habitat. The northern portions receive substantial rainfall and provide some of the best black bear habitat in the DAU. The habitat within wilderness is varied, with a range from poor to high quality habitat that is available throughout the year over a variety of elevations. Because of low hunting pressure and restricted access, black bear populations are probably quite healthy. Incidental harvest during other big game seasons distributes some pressure across the DAU.

#### POPULATION SURVEYS

Black bear bait station surveys have not been conducted in DAU 3A since 1997. Due to intensive survey efforts in other units as part of the elk productivity study, personnel were not available to participate.

#### HARVEST CHARACTERISTICS

During 1999, 87 black bears were reported harvested in DAU 3A (Table 24). Of these, 26% were females. Only 43% of the black bears were harvested during the fall. Harvest criteria under the new plan indicate light harvest. Fifty-five percent of the males were over 5+ years of age (Tables 25 and

26) in 1998. Still hunters harvested 41%, 26% by incidental hunters, 22% by bait, and 8% by hound hunters (Tables 27). Ninety percent of the black bears were harvested using a rifle (Table 28).

The black bear population data for DAU 3A suggest that 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. Still hunting during spring and incidental harvest during the fall were the most common harvest techniques. However baiting has started to increase in popularity.

#### DEPREDATIONS

One depredation occurred in this DAU during 1999, about the same as prior years.

#### DOG TRAINING SEASON

No dog training season occurred in DAU 3A during 1999. Hound hunting for black bears was not popular in this DAU due to lack of roads and high probability of losing hounds.

#### MANAGEMENT IMPLICATIONS

Black bear populations are healthy and within desired levels in this DAU. Because of the adequate habitat within this DAU and light hunting pressure, the season structure proposed in the 2000-2010 Black bear Management Plan allows for increased harvest, hence the 2-black bear bag limit and extended seasons.

Table 1. Summary of Seasons by Method for DAUs 1D, 1E, 1F, 2A, and 3A for 1999.

Season Type <sup>a,b</sup>	DAU	Units	Season	
			Dates	Length (Days)
General, any legal weapon	1D <sup>a,b</sup>	8A, 10A	4/15-5/15	31
			9/15-10/31	47
General, any legal weapon	1E <sup>a</sup>	8, 11, 11A, 13	4/15-5/15	31
			9/15-10/31	47
General, any legal weapon	1F <sup>a</sup>	14, 15 <sup>c</sup> , 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	7/1-7/31	31

<sup>a</sup> Unlawful to use dogs 4/15-4/30.

<sup>b</sup> Bait prohibited.

<sup>c</sup> North portion of Unit 15 is closed to take in 1999.

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 Black bear	90% Confidence Interval %(+/-)	
1993 <sup>a</sup>	10A <sup>b</sup>	6/21-2/26	15	15	75	5	6.7	4.7
	11 <sup>a</sup>	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 <sup>bc</sup>	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 <sup>d</sup>	10, 12	July-Aug	49	49	242	94	38.8	5.2
	15,16		73	73	365	144	39.5	4.2
Total								
1998 <sup>d</sup>	10, 12	July-Aug	59	59	293	114	38.9	4.7
	15, 16		72	72	352	95	27.0	3.9
1999	10, 12	July-Aug	47	47	235	85	36.2	5.2
	15, 16		65	65	325	98	30.2	4.2

<sup>a</sup> First year of data, no comparisons.

<sup>b</sup> Potlatch Corporation purchased sardines and placed transects.

<sup>c</sup> Transects collected at 6 days.

<sup>d</sup> Transects conducted using bacon baits instead of sardines and leaving out 20 days.

Table 3. Black bear harvest by season and sex of black bear taken in DAU 1D<sup>a</sup>, 1990-1999.

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
1998	28	8	36	45	58	103	73	66	139
1996-98 Average	23	11	31	50	42	92	70	53	123
1999	22	13	35	55	20	75	77	33	110
Difference (%)	-4	+18	+13	+10	-52	-18	+10	-38	-11

<sup>a</sup> Game Management Units 8A and 10A.

Table 4. Age distribution of black bear checked from DAU 1D<sup>a</sup>, 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</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	1	0
1	7	3	11	2	14	7	9	6	10	2	17	8	17	2	19	10	10	11
2	17	9	14	7	15	7	8	3	9	7	7	4	11	18	18	6	19	13
3	7	5	13	9	11	4	11	10	7	3	10	6	10	5	19	8	3	7
4	6	3	5	3	13	10	4	1	5	4	4	0	7	7	4	0	4	5
5	6	4	4	2	2	5	0	1	2	3	0	4	7	1	6	8	9	2
6	2	2	3	1	2	3	1	3	3	1	3	3	3	1	2	1	3	4
7	2	2	1	0	2	1	1	0	0	1	2	2	5	1	1	4	5	1
8	3	1	0	2	4	3	1	2	0	2	0	1	1	3	1	1	4	1
9	0	1	0	1	3	0	0	0	0	4	0	0	1	1	1	1	0	2
10+	0	9	1	13	6	8	5	3	3	2	4	6	1	2	0	5	4	9
Total	50	39	52	40	72	48	41	29	39	28	47	34	67	43	75	45	62	55

<sup>a</sup> Game Management Units 8A and 10A.

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

Year	N <sup>b</sup>	% Females	Median Age <sup>a</sup>			% 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	139	*47	3	3	3	40.3	25
1999 <sup>c</sup>	110	30					
Desired levels		≤35%	≥4	≥6	≥5	≥20	

<sup>a</sup> Number of black bears that were aged (excluding unknowns).

<sup>b</sup> Number of black bears that were sexed (excluding unknowns).

<sup>c</sup> 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<sup>a</sup>, 1990-1999.

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
1999	0	22	48	39	0	109

<sup>a</sup> Units 8A and 10A.

Table 7. Weapon type used to harvest black bear in DAU 1D, 1990-1999<sup>a</sup>.

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
1999	99	4	1	6	0	110

<sup>a</sup> Units 8A and 10A.

Table 8. Black bear depredation complaints handled in the Clearwater Region, 1991-1999.

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999
1D	2	3	0	0	3	1	5	9	6
1E	5	1	1	2	5	7	10	10	10
1F	1	6	2	1	0	7	2	17	1
2A	0	0	0	0	0	1	2	12	2
3A	0	0	0	0	0	1	1	2	1
Total	8	10	3	3	6	17	20	50	20

Table 9. Black bear harvest by season and sex of black bear taken in DAU 1E<sup>a</sup>, 1990-1999.

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
1998	18	8	26	32	18	50	50	26	76
1996-98 Average	17	7	24	28	17	46	48	22	69
1999	20	13	33	36	19	55	56	32	88
Difference (%)	+18	+86	+32	+29	+12	+20	+17	+46	+28

<sup>a</sup> Units 8A and 10A.

Table 10. Age distribution of black bear checked from DAU 1E<sup>a</sup>, 1990-1998.

Age	1990		1991		1992		1993		1994		1995		1996		1997		1998	
	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	2	1
1	13	1	12	4	3	4	2	1	4	5	7	5	4	4	12	3	6	2
2	8	5	10	3	10	6	5	1	13	2	6	1	10	7	9	6	13	7
3	5	3	3	2	7	1	4	3	5	2	8	3	2	2	9	5	5	2
4	2	1	4	1	0	1	3	0	2	2	3	2	4	5	8	1	5	5
5	2	0	1	2	1	2	1	0	6	0	2	0	0	1	7	0	2	0
6	1	2	1	0	3	0	0	0	1	4	2	1	2	3	0	0	4	2
7	2	2	1	2	1	1	1	3	0	0	0	2	0	0	1	0	2	1
8	1	0	0	1	0	0	1	2	0	0	1	0	0	1	2	0	2	0
9	1	1	1	0	2	0	2	0	0	0	2	0	0	1	0	0	0	1
10+	0	3	2	4	1	2	0	4	6	1	5	1	2	3	0	0	3	3
Total	34	19	35	19	28	17	19	14	37	16	37	15	26	30	51	15	44	24

<sup>a</sup> Game Management Units 8, 11, 11A, and 13.

Table 11. Values of the 1992-2000 and 2000-2010 management plan criteria for DAU 1E, 1990-1999.

Year	N <sup>b</sup>	% Females	Median Age <sup>a</sup>			% 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	74	40	3	3	3	29.5	13
1999 <sup>c</sup>	86	36					
Desired levels		≤35	≥4	≥6	≥5	>20	

<sup>a</sup> Number of black bears that were aged (excluding unknown).

<sup>b</sup> Number of black bears that were sexed (excluding unknown)

<sup>c</sup> 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<sup>a</sup>, 1990-1999.

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
1999	12	18	17	39	1	87

<sup>a</sup> Units 8, 11, 11A, and 13.

Table 13. Weapon type used to harvest black bear in DAU 1E, 1990-1999.

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
1999	83	3	0	1	1	88

Table 14. Black bear harvest by season and sex of black bear taken in 1F<sup>a</sup>, 1990-1999.

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
1998	19	10	29	34	25	59	53	35	88
1996-98 Average	21	7	28	37	19	56	58	26	84
1999	14	11	25	23	12	35	37	23	60
Difference(%)	-34	+64	-11	-37	-37	-37	-36	-11	-40

<sup>a</sup> Game Management Units 14, 15, 16, 18.

Table 15. Age distribution of black bear checked from DAU 1F<sup>a</sup>, 1990-1998.

Age	1990		1991		1992		1993		1994		1995		1996		1997		1998	
	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	7	2
2	6	2	11	2	8	2	10	1	7	2	3	2	15	7	12	3	11	6
3	2	4	16	6	8	4	3	1	3	1	8	2	13	2	12	7	9	1
4	14	0	8	2	7	3	4	0	2	1	3	2	7	2	7	1	7	7
5	1	2	0	1	4	1	1	1	1	1	3	2	3	3	9	1	3	2
6	0	1	1	2	2	1	0	0	2	1	0	1	1	0	2	1	3	3
7	0	2	1	1	3	1	1	0	1	1	0	0	3	1	0	0	3	1
8	0	1	3	0	2	1	1	1	0	0	0	0	0	0	1	0	0	1
9	1	0	0	2	2	1	2	2	0	1	0	0	0	0	2	2	3	2
10+	6	3	5	7	1	3	1	8	1	3	1	0	4	4	4	2	4	6
Total	34	17	46	25	40	22	28	16	23	13	27	11	58	20	64	19	51	29

<sup>a</sup> Game Management Units 14, 15, 16, and 18.

Table 16. Values of the 1992-2000 and 2000-2010 management plan criteria for DAU 1F, 1990-1999.

Year	N <sup>b</sup>	% Females	Median Age <sup>a</sup>			% 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	89	*40	3	4	4	37.3	16
1999 <sup>c</sup>	60	38					
Desired levels		≤35%	≥4	≥6	≥5	≥20	

<sup>a</sup> Number of black bears that were aged (excluding unknowns).

<sup>b</sup> Number of black bears that were sexed (excluding unknowns).

<sup>c</sup> 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<sup>a</sup>, 1990-1999.

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
1999	16	20	9	15	0	60

<sup>a</sup> Units 14, 15, 16, and 18.

Table 18. Weapon type used to harvest black bear in DAU 1F<sup>a</sup>, 1990-1999.

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
1999	55	2	0	3	0	60

<sup>a</sup> Units 14, 15, 16, and 18.

Table 19. Black bear harvest by season and sex of black bear taken in DAU 2A<sup>a</sup>, 1990-1999.

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
1998	140	73	213	50	28	78	190	101	291
1996-98 Average	97	40	136	34	14	48	130	54	184
1999	130	86	216	27	16	43	157	102	259
Difference (%)	+34	+116	+59	-20	-14	-10	+21	+90	+41

<sup>a</sup> Game Management Units 10 and 12.

Table 20. Age distribution of black bear checked from DAU 2A<sup>a</sup>, 1990-1998.

Age	1990		1991		1992		1993		1994		1995		1996		1997		1998	
	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	0	1
1	11	2	6	4	7	3	5	1	7	1	2	1	7	2	4	2	8	5
2	40	11	20	7	26	6	3	6	11	6	6	3	22	7	15	5	24	6
3	7	3	30	5	17	5	13	7	10	4	23	10	12	3	32	7	39	15
4	10	4	14	9	20	2	8	5	12	4	10	3	20	2	7	0	28	9
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	11	4
7	7	8	5	1	4	2	5	1	1	1	5	2	5	3	5	1	5	7
8	1	4	6	2	1	0	3	2	3	0	4	2	10	0	3	2	8	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	21	25
Total	114	55	111	58	101	25	65	39	68	23	70	32	105	30	91	29	163	85

<sup>a</sup> Game Management Units 10 and 12.

Table 21. Values of the 1992-2000 and 2000-2010 management plans criteria for DAU 2A, 1990-1999.

Year	N <sup>a</sup>	% Females	Median Age <sup>b</sup>			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 <sup>b</sup>	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	291	35	4	5	5	39.3	64
1999 <sup>c</sup>	259	39					
Desired levels		≤35	≥4	≥6	≥5	≥25%	

<sup>a</sup> Number of black bears that were sexed (exclude unknowns).

<sup>b</sup> Number of black bears that were aged (exclude unknowns).

<sup>c</sup> 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<sup>a</sup>, 1990-1999.

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
1999	152	17	41	47	2	257

<sup>a</sup> Units 10 and 12.

Table 23. Weapon type used to harvest black bear in DAU 2A<sup>a</sup>, 1990-1999.

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
1999	197	49	3	9	1	259

<sup>a</sup> Units 10 and 12.

Table 24. Black bear harvest by season and sex of black bear taken in DAU 3A<sup>a</sup>, 1990-1999.

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
1998	29	8	37	20	13	33	49	21	70
1996-98 Average	22	13	28	22	11	33	44	18	61
1999	37	12	49	27	11	38	64	23	87
Difference (%)	+71	-8	+75	+23	-3	+14	+47	+30	+42

<sup>a</sup> Game Management Units 16A, 17, 19 and 20.

Table 25. Age distribution of black bear checked from DAU 3A<sup>a</sup>, 1990-1998.

Age	1990		1991		1992		1993		1994		1995		1996		1997		1998	
	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	0	0
1	1	0	5	2	2	0	1	1	3	4	1	0	5	0	2	0	1	1
2	10	4	8	2	9	2	2	1	11	0	7	3	10	4	5	2	6	2
3	5	3	8	4	13	3	4	6	1	0	9	1	7	1	7	3	6	2
4	7	1	3	2	9	4	6	1	3	2	4	1	5	2	3	4	8	1
5	3	2	4	4	4	2	8	1	3	2	3	0	1	0	3	0	9	2
6	3	0	5	2	3	2	0	0	3	1	6	1	1	0	0	0	3	2
7	7	2	1	1	3	3	3	1	2	0	1	1	2	2	2	0	1	2
8	0	1	8	1	4	1	1	1	2	1	1	3	0	3	0	0	0	2
9	1	0	0	1	3	0	1	0	2	1	1	1	0	2	2	2	3	2
10+	6	6	3	6	1	5	7	8	6	3	8	4	8	2	7	0	10	5
Total	43	19	45	25	51	22	41	21	33	12	41	15	42	16	33	12	47	21

<sup>a</sup> Game Management Units 16A, 17, 19 and 20.

Table 26. Values of the 1992-2000 and 2000-2010 management plans criteria for DAU 3A, 1990-1999.

Year	N <sup>a</sup>	% Females	Median Age <sup>b</sup>			% 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 <sup>b</sup>	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	68	30	5	7	5	55	26
1999 <sup>c</sup>	87	26					
Desired levels		≤35	≥4	≥6	≥5	≥30	

<sup>a</sup> Number of black bears that were sexed (exclude unknowns)

<sup>b</sup> Number of black bears that were aged (exclude unknowns).

<sup>c</sup> 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<sup>a</sup>, 1990-1999.

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
1999	19	7	35	22	3	86

<sup>a</sup> Units 16A, 17, 19 and 20.

Table 28. Weapon type used to harvest black bear in DAU 3A<sup>a</sup>, 1990-1999.

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
1999	76	9	0	2	0	87

<sup>a</sup> Units 16A, 17, 19 and 20.

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

**STATE:** Idaho                      **JOB TITLE:** Black bear Surveys and Inventories  
**PROJECT:** W-170-R-24  
**SUBPROJECT:** 3                      **STUDY NAME:** Big Game Population Status,  
**STUDY:** I                                      Trends, Utilization and Associated  
**JOB:** 9    Habitat Studies  
**PERIOD COVERED:** July 1, 1999 to June 30, 2000

**BLACK BEAR – SOUTHWEST REGION**

**ABSTRACT**

Area 1: 374 black bears were reported harvested in Area 1 of the Southwest Region in 1999. Bait station survey results were comparable to previous years in DAU 1H in June, 2000. Reported harvest was 136, 52, and 186 black bears for DAUs 1G, 1H, and 1K, respectively. The reported harvest increased 32% in DAU 1G. Harvest in DAU 1H and 1K decreased 21% and 4% in 1999, respectively. Black bear age data for the 1999 fall hunting season was not available during this reporting period. Data indicate percent females and percent males greater than five years of age in the harvest criteria are not being met in DAU 1H. 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 baiting comprised most of the black bear kill in DAU 1K in 1999. Liberalized seasons were implemented in 1998 and again in 1999 with adoption of the 2000-2010 Black bear Species Management Plan. The 1999 harvest results reflect the second 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 elimination of the fall split season in 1998 contributed to a significant increase in black bear harvest.

Area 3: 36 black bears were reported harvested in Area 3 of the Southwest Region in 1999. The percent females in the harvest management criteria were slightly above 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. Male, female, and overall median age and percent females were the harvest criteria monitored during the 1992-2000 planning period.

New, simpler criteria were developed in the recently drafted 2000-2010 Black bear Species Management Plan, and took effect in the 1999 fall hunting season. These harvest criteria are the three-year running average of percent females and percent males five years or older. Bait station survey trends are also 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. More liberal seasons were implemented in the fall of 1998 and were carried over into the 1999 framework (Table 2).

## POPULATION SURVEYS

Bait station surveys were conducted between June 22 and June 27, 2000, to monitor black bear population trends in the Middle Fork and Little Weiser River drainages of DAU 1H. Thirty-eight percent of the stations (32 out of 85) were visited by black bear. The 2000 visitation rate was similar to that documented in 1999 (Table 3). This good visitation rate could be a continued consequence of the suspected birth pulse in 1999. Assuming the harvest rate remains constant, the visitation rate can be expected to decline slightly as this age class of animals matures and disperses.

## HARVEST CHARACTERISTICS

Reported harvest in DAU 1G increased 32% in 1999 when compared to 1998 totals (Table 4). The black bear harvest in this DAU was greater in the fall than in the spring in 1999. Black bear age data were unavailable for the 1999 fall hunting season and yielded inaccurate age data during this reporting period (Table 5). Percent females in the harvest were within acceptable limits (Table 6). There was adequate distribution of harvest among user groups in DAU 1G in 1999 (Table 7). The rifle is the most prominent weapon used for harvesting black bear in DAU 1G (Table 8).

Reported harvest decreased 21% in 1999 compared to 1998 in DAU 1H (Table 9). The black bear harvest was nearly the same in the fall as in the spring in 1999. Black bear age data were unavailable for the 1999 fall hunting season and yielded inaccurate age data during this reporting period (Table 10). An 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 decreased slightly (4%) in 1999 when compared to 1998 totals in DAU 1K (Table 14). Black bear harvest was nearly equal between the fall and the spring seasons in DAU 1K in 1999. Black bear age data were unavailable for the 1999 fall hunting season and yielded inaccurate age data during this reporting period (Table 15). The percent females in the harvest decreased slightly in 1999 from 1998 totals (Table 16). The three-year running average for percent females is at the upper cusp of the desired level. Still hunting (stalking) method comprised most of the black bear kill in DAU 1K in 1999 (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 similar in 1999 when compared to 1998 (Table 19).

## MANAGEMENT IMPLICATIONS

The 2000-2010 Black bear Species Management Plan identifies three harvest level targets for black bear populations: light, moderate, and heavy. Light harvest strategies provide for thriving black bear populations in which a hunter could expect to encounter a lot of black bears and have an elevated

chance of harvesting one. Moderate harvest is designed to provide maximum hunter opportunity yet maintain a viable self-sustaining black bear population. Heavy harvest criteria are employed where an obvious desire exists to severely reduce a black bear population. Areas of heavy harvest do not maintain a viable, self-sustaining black bear population over the long term.

DAU 1G appeared to be within acceptable harvest levels in 1998. As a result, the first two weeks of October were added back into the fall season to eliminate the split that caused confusion and regulation complication for sportsmen. This did not increase harvest initially in DAU 1G, but did increase it in 1999. Harvest parameters are still well within desired limits. Therefore, the fall 2000 season will open on August 30 in this DAU to restore some hunter opportunity lost when seasons were curtailed in the early 1990s.

Harvest parameters in DAU 1H showed a trend toward too many female black bears in the harvest. This did not seem logical under a conservative controlled hunt strategy; however, most black bears were harvested in September when females are vulnerable. The April 15 to May 15 spring season framework is a less vulnerable time period for female black bears; hence, spring permits were increased in 1998 to attempt to skew the sex ratio of the harvest further toward male black bears. The first two years of this strategy has not yielded the most promising results. Black bear harvest has become nearly equal between the two seasons. Fall permits will be increased in 2000 and the season extended to the end of October to respond to a clamor about increased black bear sightings in this DAU and another attempt at influencing male black bear harvest. 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 black bears, and a harvest rate of 30% or greater females may be the norm for a lightly hunted population under these conditions. Education regarding species management plan harvest goals and population objectives is needed to help sportsmen understand that the seasons in this DAU are meant to provide for high black bear numbers and an increased chance for seeing black bears.

The fall split season was eliminated in 1998 in DAU 1K for the same reasons as mentioned above for DAU 1G. This change did result in a significant increase in fall black bear harvest, as well as overall annual harvest. Subsequently, the spring of 1999 was late, plant phenological development was delayed, and snow packs remained at mid- and upper elevations. This contributed to a significant increase in spring black bear harvest, but overall annual harvest remained near the inflated 1998 level. The percent female parameter in DAU 1K is now at the maximum level desired. This higher harvest of black bears needs to be monitored closely to prevent large declines in the black bear population and subsequent hunter complaints.

### **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+ black bears in the male harvest and 30-40% females in the total harvest. Minor season adjustments may be implemented to conform to statewide management direction. There is no dog training season in Area 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 the Frank Church River of No Return Wilderness boundaries. Except for a few mining roads penetrating the periphery, access in these units is restricted to boat, airplane, 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 were expanded with implementation of the 2000-2010 Black bear Plan.

## POPULATION SURVEYS

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

## HARVEST CHARACTERISTICS

Reported harvest increased 24% in 1999 compared to 1998 for DAU 3B (Table 21). The black bear harvest in DAU 3B was greater in the fall than spring season. Black bear age data were unavailable for the 1999 fall hunting season and yielded inaccurate age data during this reporting period (Table 22). Percent females in the harvest increased in 1999 (Table 23). Harvest incidental to other species hunting was the primary method of kill 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 1999.

## MANAGEMENT IMPLICATIONS

Harvest in DAU 3B is usually minor. Small sample sizes preclude meaningful interpretation of harvest criteria. Minor changes to season structure were incorporated into the 1992-2000 Black bear Management Plan to make this DAU consistent with statewide management direction. Minor changes to the fall season structure were implemented with the 2000-2010 Black bear Species

Management Plan. A two black bear bag limit and a longer fall season was adopted by the Commission for the 2000 season in response to sportsmen's unsubstantiated concerns of black bear predation on elk calves in the Middle Fork Elk Zone. The Department will continue to monitor the harvest criteria for DAU 3B to assess the effects of these season changes on black bear populations.

Table 1. Harvest criteria for black bear in Idaho.

Criteria	Light Harvest	Moderate Harvest	Heavy Harvest
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, 1999-June 30, 2000.

Season Type <sup>a</sup>	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 <sup>b</sup>	1H	822-1 <sup>c</sup> , 832-1 <sup>d</sup>	9/1-9/30	30
		822-2 <sup>e</sup> , 832-2 <sup>f</sup>	4/15-5/15	31

<sup>a</sup> Any black bear is legal except female black bear accompanied by young.

<sup>b</sup> Bait prohibited.

<sup>c</sup> All of Units 22 and 31; 30 permits.

<sup>d</sup> All of Units 32 and 32A; 30 permits.

<sup>e</sup> All of Units 22 and 31; 50 permits; dogs prohibited.

<sup>f</sup> All of Units 32 and 32A; 50 permits; dogs prohibited.

Table 3. Bait station survey results from Council routes (DAU 1H), 1985-2000.

Year	Survey Number	Survey Dates	Total Trans. Avail.	Total Trans. Sampled	Total Stations Sampled	Total Stations Visited By Black 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	7/07-7/06 <sup>a</sup>	16	16	80	31	39	10.0
2000	1	6/22-6/27	17	17	85	32	38	8.6

<sup>a</sup> Nineteen stations were not checked until 7/13/99.

Table 4. Black bear harvest by season and sex of black bear taken in DAU 1G<sup>a</sup>, 1983-1999.

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
1998	38	10	48	36	19	55	74	29	103
1996-1998 Average	35	13	48	36	23	59	71	36	107
1999	37	16	53	51	32	83	88	48	136
Difference	+2	+3	+5	+15	+9	+24	+17	+12	+29

<sup>a</sup> Game Management Units 19A, 23, 24, and 25.

Table 5. Age distribution of black bear checked from DAU 1G<sup>a</sup>, 1990-1999.

Age	1991		1992		1993		1994		1995		1996		1997		1998		1999 <sup>b</sup>	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unk.	13	2	3	2	7	7	5	5	3	2	11	12	3	6	2	4	56	36
Cub	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0
1	5	2	4	1	7	2	4	0	7	5	1	0	8	1	6	4	0	0
2	13	3	7	3	7	3	14	6	11	7	18	5	6	5	8	6	6	1
3	10	2	10	4	7	2	3	2	18	6	8	2	18	8	10	4	8	4
4	4	3	5	2	11	2	5	1	2	1	15	3	6	1	14	3	1	0
5	4	1	1	3	4	1	6	1	4	1	1	0	7	4	10	2	3	2
6	3	4	2	0	4	1	2	4	6	3	6	1	2	1	10	3	2	1
7	5	4	0	1	3	1	1	0	6	4	5	3	2	2	3	0	4	0
8	2	5	2	2	1	0	1	0	0	1	1	1	1	1	2	0	1	0
9	0	2	1	1	1	0	0	0	4	2	0	1	2	2	2	3	0	1
10+	6	6	7	2	7	4	0	3	7	5	10	10	9	8	7	0	7	3
Total	65	34	42	21	60	23	41	22	69	37	76	39	64	39	74	29	88	48

<sup>a</sup> Game Management Units 19A, 23, 24, and 25.

<sup>b</sup> Incomplete data, 1999 fall ages not available at time of reporting.

Table 6. Median ages and values of the 2000-2010 management plan criteria for DAU 1G<sup>a</sup>, 1990-1999.

Year	N <sup>b</sup>	% Females	Median Age			% Males		N <sup>c</sup>
			Males	Females	Total	≥5	# Males	
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	63	35	2	3	3	26	40	50
1995	106	36	3	3	3	40	67	100
1996	115	34	4	7	4	35	76	91
1997	103	37	3	5	4	38	64	93
1998	103	28	4	3	7	47	74	97
1999	136	35	<sup>d</sup> 5	<sup>d</sup> 5	<sup>d</sup> 5	<sup>d</sup> 53	88	44
1997-1999 Average		34	<sup>d</sup> 5	<sup>d</sup> 5	<sup>d</sup> 5	<sup>d</sup> 45		
Desired levels		30-40	≥4	≥6	≥5	25-35		

<sup>a</sup> Game Management Units 19A, 23, 24, and 25.

<sup>b</sup> Number of black bears that were sexed (excluding unknowns).

<sup>c</sup> Number of black bears that were aged (excluding unknowns).

<sup>d</sup> Incomplete data, 1999 fall ages not available at time of reporting.

Table 7. Method of harvest of black bear taken in DAU 1G<sup>a</sup>, 1987-1999.

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	13	3	5	2	11	10	11	6	1	1	41	22
1995	14	3	14	7	25	14	16	12	0	1	69	37
1996	10	3	15	3	33	18	18	13	0	2	76	39
1997	21	5	13	4	8	13	19	17	3	0	64	39
1998	22	0	12	6	17	4	20	18	3	1	74	29
1999	17	6	21	12	21	10	28	18	1	2	88	48

<sup>a</sup> Units 19A, 23, 24, and 25.

Table 8. Weapon type used to harvest black bear in DAU 1G<sup>a</sup>, 1987-1999.

Year	Rifle		Archery		Muzzleloader		Pistol		Other		Total	
	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	33	20	6	1	0	0	1	0	1	1	41	22
1995	62	34	3	2	1	0	3	0	0	1	69	37
1996	60	33	12	5	1	0	3	1	0	0	76	39
1997	50	36	8	3	2	0	2	0	2	0	64	39
1998	65	27	7	1	0	0	2	1	0	0	74	29
1999	72	42	11	3	1	0	4	3	0	0	88	48

<sup>a</sup> Units 19A, 23, 24, and 25.

Table 9. Black bear harvest by season and sex of black bear taken in DAU 1H<sup>a</sup>, 1983-1999.

Year	Spring			Fall			Entire Season		
	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
1998	23	10	33	21	12	33	44	22	66
1996-1998 Average	17	6	23	17	9	26	34	15	49
1999	14	10	24	16	12	28	30	22	52
Difference	-3	+4	+1	-1	+3	+2	-4	+7	+3

<sup>a</sup> Units 22, 31, 32, and 32A.

Table 10. Age distribution of black bear checked from DAU 1H<sup>a</sup>, 1990-1999.

Age	1991		1992		1993		1994		1995		1996		1997		1998		1999 <sup>b</sup>	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unk.	3	1	7	5	3	1	2	1	5	1	3	4	5	1	3	4	16	14
Cub	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	8	2	5	3	3	0	2	1	3	1	2	0	5	1	3	0	0	0
2	7	2	7	6	2	1	5	1	1	3	10	4	7	0	13	4	5	2
3	7	1	2	4	5	1	1	2	2	2	2	0	7	2	4	3	2	2
4	3	1	1	2	1	1	1	1	3	1	1	0	4	2	8	2	2	0
5	2	1	0	3	0	2	1	0	3	0	0	0	0	1	2	0	1	1
6	4	2	1	6	1	0	0	2	0	1	1	0	4	2	2	2	1	0
7	0	3	1	1	0	0	0	0	0	1	1	0	2	0	2	1	0	1
8	1	1	2	0	0	0	1	0	0	0	0	0	2	1	1	3	1	1
9	0	0	0	0	0	1	1	1	1	0	0	1	1	1	1	2	0	0
10+	3	2	3	6	0	1	0	1	0	1	2	1	1	3	5	1	2	1
Total	39	16	29	36	15	8	14	10	18	11	22	10	38	14	44	22	30	22

<sup>a</sup> Game Management Units 22, 31, 32, and 32A.

<sup>b</sup> Incomplete data, 1999 fall ages not available at time of reporting.

Table 11. Values of the 1992-2000 and 2000-2010 management plan criteria for DAU 1H<sup>a</sup>, 1990-1999.

Year	N <sup>b</sup>	% Females	Median Age			% Males ≥5	# Males	N <sup>c</sup>
			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	4	5	4	32	44	59
1999	52	42	<sup>d</sup> 3.5	<sup>d</sup> 4	<sup>d</sup> 3.5	<sup>d</sup> 36	30	22
1996-1998 Avg.		34	<sup>d</sup> 3	<sup>d</sup> 5.5	<sup>d</sup> 4	<sup>d</sup> 33		
Desired levels		≤30	≥4	≥6	≥5	≥35		

<sup>a</sup> Game Management Units 22, 31, 32, and 32A

<sup>b</sup> Number of black bears that were sexed.

<sup>c</sup> Number of black bears that were aged.

<sup>d</sup> Incomplete data, 1999 fall ages not available at time of reporting.

Table 12. Method of harvest of black bear taken in DAU 1H<sup>a</sup>, 1987-1999.

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
1999	0	0	15	9	15	11	0	2	0	0	30	22

<sup>a</sup> Units 22, 31, 32, and 32A.

Table 13. Weapon type used to harvest black bear in DAU 1H<sup>a</sup>, 1987-1999.

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
1999	25	20	3	1	1	0	0	1	1	0	30	22

<sup>a</sup> Game Management Units 22, 31, 32, and 32A.

Table 14. Black bear harvest by season and sex of black bear taken in 1K<sup>a</sup>, 1983-1999.

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	33	20	53	44	20	64	77	40	117
1995	52	21	73	49	36	85	101	57	158
1996	47	32	79	31	20	51	78	52	130
1997	34	23	57	41	33	74	75	56	131
1998	39	24	63	75	55	130	114	79	193
1996-98 Avg.	40	26	66	49	36	85	89	62	151
1999	66	26	92	53	41	94	119	67	186
Difference	+26	0	+26	+4	+5	+9	+30	+5	+35

<sup>a</sup> Game Management Units 33, 39, and 43.

Table 15. Age distribution of black bear checked from DAU 1K<sup>a</sup>, 1990-1999.

Age	1991		1992		1993		1994		1995		1996		1997		1998		1999 <sup>b</sup>	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unk.	12	6	7	4	5	8	7	4	11	9	8	8	3	6	9	8	58	41
Cub	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
1	9	2	2	2	13	1	8	0	14	10	8	4	8	3	25	12	0	0
2	12	8	5	1	5	2	23	12	12	3	25	14	9	9	23	7	13	2
3	6	3	5	8	1	2	5	3	34	14	6	9	25	12	5	7	14	6
4	12	6	11	1	11	2	7	2	5	3	14	6	2	2	16	9	8	4
5	6	5	4	0	5	0	6	8	3	2	2	2	13	4	8	4	13	4
6	9	4	1	0	2	1	8	3	9	6	3	0	3	1	11	7	2	4
7	3	2	2	3	5	2	4	0	3	1	2	2	1	3	4	3	8	2
8	3	2	1	0	2	0	2	0	3	2	3	1	4	4	3	1	0	0
9	3	2	1	1	1	1	3	2	4	1	1	1	0	3	5	4	1	0
10+	3	9	5	1	3	4	4	6	3	6	6	5	5	9	5	17	2	4
Total	78	49	44	21	53	23	77	40	101	57	78	52	75	56	114	79	119	67

<sup>a</sup> Game Management Units 33, 39, and 43.

<sup>b</sup> Incomplete data, 1999 fall ages not available at time of reporting.

Table 16. Median ages and values of the 2000-2010 management plan criteria for DAU 1K<sup>a</sup>, 1990-1999.

Year	N <sup>b</sup>	% Females	Median Age			% Males		N <sup>c</sup>
			Males	Females	Total	≥5	# Males	
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	3	5	4	34	113	176
1999	186	36	<sup>d</sup> 4	<sup>d</sup> 5	<sup>d</sup> 4	<sup>d</sup> 43	119	87
1997-1999 Avg.		40	<sup>d</sup> 3	<sup>d</sup> 4	<sup>d</sup> 4	<sup>d</sup> 37		
Desired levels		30-40	≥4	≥6	≥5	25-35		

<sup>a</sup> Game Management Units 33, 39, and 43.

<sup>b</sup> Number of black bears that were sexed.

<sup>c</sup> Number of black bears that were aged.

<sup>d</sup> Incomplete data, 1999 fall ages not available at time of reporting.

Table 17. Method of harvest of black bear taken in DAU 1K<sup>a</sup>, 1987-1999.

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	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	15	12	16	2	15	13	26	12	5	1	77	40
1995	24	10	16	6	36	20	22	20	3	1	101	57
1996	19	16	9	10	22	16	27	9	1	1	78	52
1997	20	9	9	7	20	18	26	21	0	1	75	56
1998	19	11	13	10	35	26	43	32	4	0	114	79
1999	29	10	17	13	46	29	25	13	2	2	119	67

<sup>a</sup> Game Management Units 33, 39, and 43.

Table 18. Weapon type used to harvest black bear in DAU 1K<sup>a</sup>, 1987-1999.

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	57	33	14	7	0	0	5	0	1	0	77	40
1995	72	47	23	6	0	1	6	3	0	0	101	57
1996	62	40	9	6	1	2	6	4	0	0	78	52
1997	62	48	10	5	1	0	2	2	0	1	75	56
1998	100	70	10	5	1	1	3	3	0	0	114	79
1999	96	54	14	9	0	0	9	4	0	0	119	67

<sup>a</sup> Game Management Units 33, 39, and 43.

Table 19. Black bear depredation complaints handled in the Southwest Region, 1990-1999.

DAU	YEAR									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	
1G	0	4	4	3	7	11	1	5	4	
1H	2	2	0	0	2	4	1	1	5	
1K	27	5	2	3	11	3	2	5	1	
3B	0	0	0	1	1	1	1	0	0	
Total	29	11	6	7	21	19	5	11	10	

Table 20. Summary of Seasons by Method for DAU 3B, July 1, 1999-June 30, 2000.

Season Type <sup>a</sup>	DAU	Units	Season	
			Dates	Length
General, any legal weapon	3B	20A, 26, 27	8/30-10/31	63
			4/15-6/30	77
Dog-training only	3B	20A, 26, 27	None	

<sup>a</sup> Any black bear is legal except female black bear accompanied by young.

Table 21. Black bear harvest by season and sex of black bear taken in DAU 3B<sup>a</sup>, 1983-1999.

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	26	18	44	31	21	52
1995	4	7	11	14	8	22	18	15	33
1996	7	2	9	29	8	37	36	10	46
1997	5	3	8	8	8	16	13	11	24
1998	9	6	15	9	5	14	18	11	29
1996-98 Avg.	7	4	11	15	7	22	22	11	33
1999	2	0	2	19	15	34	21	15	36
Difference	-5	-4	-9	+4	+8	+12	-1	+4	+3

<sup>a</sup> Game Management Units 20A, 26, and 27.

Table 22. Age distribution of black bear checked from DAU 3B<sup>a</sup>, 1990-1999.

Age	1991		1992		1993		1994		1995		1996		1997		1998		1999 <sup>b</sup>	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Unk.	2	3	3	1	3	5	2	5	6	2	4	2	2	0	5	0	12	12
Cub	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	1	7	0	4	1	1	1	1	0	1	0	0	1	1	0
2	0	2	1	1	1	2	4	7	3	1	5	1	0	1	1	1	0	0
3	1	0	0	1	1	3	2	4	5	3	5	1	4	0	3	0	2	0
4	1	2	0	1	1	2	3	0	0	0	10	0	4	2	1	2	0	0
5	2	1	0	0	2	0	0	1	1	2	0	0	1	2	2	2	1	0
6	2	0	2	0	4	0	0	1	0	1	0	2	0	0	0	0	1	1
7	4	4	1	0	1	2	0	0	1	0	2	2	0	1	1	0	1	0
8	3	2	2	0	1	0	2	0	0	0	2	1	0	1	2	1	0	0
9	0	0	0	0	0	1	1	0	0	0	0	1	0	2	0	0	0	1
10+	5	1	1	2	4	5	13	2	1	5	7	0	1	2	3	4	3	1
Total	20	15	10	7	26	20	31	21	18	15	36	10	13	11	18	11	21	15

<sup>a</sup> Game Management Units 20A, 26, and 27.

<sup>b</sup> Incomplete data, 1999 fall ages not available at time of reporting.

Table 23. Median ages and values of the 2000-2010 management plan criteria for DAU 3B<sup>a</sup>, 1990-1999.

Year	N1 <sup>b</sup>	% Females	Median Age			% Males		N2 <sup>c</sup>
			Males	Females	Total	≥5	# Males	
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	5	5	5	62	18	24
1999	36	42	<sup>d</sup> 6	<sup>d</sup> 9	<sup>d</sup> 6.5	<sup>d</sup> 67	21	<sup>d</sup> 12
1997-99 Avg.		42	<sup>d</sup> 4	<sup>d</sup> 7	<sup>d</sup> 5	<sup>d</sup> 48		
Desired levels		30-40	≥4	≥6	≥5	25-35		

<sup>a</sup> Game Management Units 20A, 26, and 27.

<sup>b</sup> Number of black bears that were sexed (excluding unknowns).

<sup>c</sup> Number of black bears that were aged (excluding unknowns).

<sup>d</sup> Incomplete data, 1999 fall ages not available at time of reporting.

Table 24. Method of harvest of black bear taken in DAU 3B<sup>a</sup>, 1987-1999.

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	7	23	10	0	3	31	21
1995	0	0	0	0	6	10	12	4	0	1	18	15
1996	0	0	1	0	13	4	21	6	1	0	36	10
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
1999	0	0	0	0	6	4	14	11	1	0	21	15

<sup>a</sup> Game Management Units 20A, 26, and 27.

Table 25. Weapon type used to harvest black bear in DAU 3B<sup>a</sup>, 1987-1999.

Year	Rifle		Archery		Muzzleloader		Pistol		Other		Total	
	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	31	21	0	0	0	0	0	0	0	0	31	21
1995	17	15	1	0	0	0	0	0	0	0	18	15
1996	35	10	0	0	0	0	1	0	0	0	36	10
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
1999	20	15	1	0	0	0	0	0	0	0	21	15

<sup>a</sup> 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-24  
**SUBPROJECT:** 4                      **STUDY NAME:** Big Game Population Status, Trends,  
**STUDY:** I    Utilization and Associated Habitat  
**JOB:** 9    Studies  
**PERIOD COVERED:** July 1, 1999 to June 30, 2000

**BLACK BEAR – MAGIC VALLEY REGION**

**ABSTRACT**

Twenty-two black bears were harvested in DAU 4A in 1999, equal to the 1996-1998 mean of 22 black bears. The small sample size precludes use of criteria established in the Black bear Management Plan for monitoring black bear populations. Baiting, hound hunting, incidental, and still hunting accounted for 27%, 18%, 23%, and 32%, respectively, of the black bears harvested. Most black bears were taken by rifle (91%), while only 1 black bear (4%) was killed with archery equipment. The Department received 8 depredation complaints and USDA Wildlife Services responded to 1 complaint.

**AREA 4**

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

**MANAGEMENT DIRECTION**

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

**BACKGROUND**

The units in DAU 4A are on the southern edge of black bear range in Idaho and black bear densities are relatively low. Harvest in this DAU generally comprises less than 5% of the statewide black bear harvest annually. 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 1999 spring hunting season was unchanged from the previous 6 years, while the fall season structure has been in place since 1997 when it was increased 2 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-two black bears were harvested in 1999, which is average for the DAU in recent years. Fifty-nine percent of the black bear harvest occurred during the spring season. From 1989-1998, 61% of the annual harvest occurred during the spring season (Table 2). Access to mid- and high elevations during the 1999 spring season was good because of a moderate snowpack and warm spring weather.

Sixty-eight percent of the black bears harvested in 1999 were less than 5 years old (Table 3). Because of the small number of black bears harvested in the DAU, application of harvest criteria in the 1992-2000 and 2000-2010 management plans is not recommended (Table 4).

Still and incidental hunting accounted for 55% of all black bears harvested in this DAU in 1999. Six of 22 black bears were taken over bait in 1999 compared to only 1 of 25 in 1998. Hound hunting accounted for 18% of the harvested black bears (Table 5).

Rifles and archery equipment accounted for 91% and 4% of the 1999 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 1999, 8 complaints were received on black bears getting into garbage cans, dumpsters or bird feeders in Unit 48 (Table 7).

Wildlife Services personnel handle depredations on livestock. From 1987-1998, we received mortality reports on 14 black bears harvested by Wildlife Services (3-1988, 1-1990, 3-1993, 1-1994, 1-1995, 0-1996, 2-1997, 3-1998) for this DAU. In 1999 Wildlife Services personnel harvested 1 black bear.

## DOG TRAINING SEASON

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

## MANAGEMENT IMPLICATIONS

Because of the small number of black bears typically harvested in this DAU, management decisions are not based exclusively on the established monitoring criteria. The data suggest black bear harvest

has been moderate (1997-1999 average of 37% females in the harvest and 30% 5+-year-old males), and it is believed the black bear population has increased slightly in recent years. Black bear complaints and depredation problems have been at tolerable levels. Nuisance complaints in the Wood River Valley increased substantially in 1999 as a result of dry habitat conditions and increased encroachment of humans into black bear habitat.

Table 1. Summary of Seasons by Method for DAU 4A, 1999.

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

<sup>a</sup> Any black bear is legal except female black bear accompanied by young.

<sup>b</sup> Dogs prohibited from September 15 through October 31.

Table 2. Black bear harvest by season and sex of black bear taken in DAU 4A<sup>a</sup>, 1985-1999.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1985 <sup>b</sup>	10	7	17	2	0	2	12	7	19
1986 <sup>b</sup>	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
1998	8	5	13	10	2	12	18	7	25
1996-98 Avg.	8.0	4.3	12.3	6.7	3.0	9.7	14.7	7.3	22.0
1999	9	4	13	3	6	9	12	10	22
Difference %	+12	-7%	+6%	-55%	+62%	-7%	-18%	+37%	0%

<sup>a</sup> Includes Game Management Units 44, 45, 48, and 49.

<sup>b</sup> 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<sup>a</sup>, 1993-1999.

Age	1993		1994		1995		1996		1997		1998		1999	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cub	2	0	1	0	1	0	1	0	0	2	0	1	2	1
1	2	0	4	0	3	1	0	0	3	1	4	2	0	0
2	1	0	5	1	2	0	1	1	2	1	3	1	2	4
3	3	1	3	1	4	1	0	2	2	3	2	0	4	1
4	2	0	1	2	2	0	3	2	6	1	0	1	1	0
5	0	0	3	0	0	1	0	0	2	0	1	0	1	0
6	0	0	0	1	0	0	0	0	1	0	3	0	1	1
7	1	0	1	1	0	0	1	0	0	1	2	0	1	1
8	0	0	1	1	0	0	1	0	1	0	1	0	0	1
9	0	0	0	0	0	0	1	0	0	0	1	0	0	0
10+	1	3	0	3	1	2	0	0	0	1	0	1	0	1
Total	13	4	19	10	13	4	8	5	18	10	18	7	12	10

<sup>a</sup> Includes Game Management Units 44, 45, 48, and 49.

Table 4. Values of the 1992-2000 and 2000-2010 management plan criteria for DAU 4A, 1987-1999.

Year	N <sup>a</sup>	% Females	Median Age			% Males ≥5 yrs.
			Males	Females	Total	
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	15
1994	30	37	2	7.5	4	26
1995	18	17	3	5	3	8
1996	13	38	4	3	4	38
1997	27	37	4	3	3.5	22
1998	24	29	3	3	3	44
1999	22	45	3	2.5	3	25
1997-1999 Average	24	37	3	3	3	30
(Desired Levels)		≤35	≥4	≥6	≥5	≥20

<sup>a</sup> Number of black bears that were aged. Sample sizes are too small to make reliable inferences from the data about population trends.

Table 5. Method of harvest of black bear taken in DAU 4A, 1987-1999.

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
1999	5	1	2	2	3	4	2	3	0	0	12	10

Table 6. Weapon type used to harvest black bear in DAU 4A, 1987-1999.

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	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
1999	11	9	0	1	0	0	1	0	0	0	12	10

Table 7. Black bear depredation complaints handled in the Magic Valley Region, 1993-1999.

DAU	Year							
	1993	1994	1995	1996	1997	1998	1999	
4A	2	9	4	1	3	5	8	
Total	2	9	4	1	3	5	8	

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Black bear Surveys and Inventories</u>
<b>PROJECT:</b>	<u>W-170-R-24</u>		
<b>SUBPROJECT:</b>	<u>5 and 6</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status, Trends, Use, and Associated Habitat</u>
<b>STUDY:</b>	<u>I</u>		
<b>JOB:</b>	<u>9</u>		<u>Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 1999 to June 30, 2000</u>		

**BLACK BEAR – UPPER SNAKE REGION**

**ABSTRACT**

Overharvest was a concern in the Upper Snake Region based on criteria established in the 1992-2000 Black bear Management Plan. This concern led to reductions in take seasons beginning in 1992 and continuing through 1998, consistent with statewide reductions. These more restrictive season frameworks were ineffective in reducing black bear harvest in the Upper Snake and Southeast Regions. Take seasons were liberalized beginning in 1999. New management criteria in the 2000-2010 Black bear Management Plan indicate that regional black bear populations are harvested at either a moderate or lightly harvested level. Harvest was monitored via a mandatory check requirement that was not evaluated for noncompliance.

**AREA 4**

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

**ABSTRACT**

Harvest criteria do not apply in this DAU due to low average annual harvest (<30). However concerns over possible overharvest (based on criteria established in the 1992-2000 Black bear Management Plan) led to reductions in take seasons beginning in 1993 consistent with statewide reductions. Black bear harvest did not decline under the more restrictive season framework. The take season was lengthened in 1999 consistent with statewide liberalizations. A total of 15 black bears were harvested in 1999, the lowest total in recent history. New harvest criteria established in the 2000-2010 Black bear Management Plan indicates that this population is harvested at the moderate level, which is the objective for this DAU.

**MANAGEMENT DIRECTION**

The 1992-2000 Black bear Management Plan stated that the Department will manage black bear populations in Area 4 to reduce or maintain current harvest levels. The 2000-2010 Black bear Management Plan sets management objectives for DAU 4B to maintain harvest levels consistent

with the moderate harvest targets of 25-35% age 5+ black bears in the male harvest and 30-40% females in the total harvest, calculated on a three-year running average.

## 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 vulnerable to harvest because the limited habitat is often isolated from adjacent black 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.

After an unusually cool and wet spring in 1999, the summer and fall were warm and dry. Winter precipitation was below normal while temperatures were well above average. The spring of 2000 came early, and warm and dry conditions have persisted.

## 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 and conclusions are tenuous. The Black bear Management Plan states that when average annual harvest is less than 30 black bears, the black bear management criteria do not apply, and management decisions will be based on professional judgement of Department biologists.

Fifteen black bears were checked from DAU 4B in 1999, the lowest total since 1991, and only 54% of the average total for the preceding three-year period (Table 2). Age was determined for six of the seven 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 harvest management 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 1992-2000 Black bear Management Plan criteria were exceeded in 1999, and the 1997-1999 average shows all four of the harvest 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 had little apparent effect on total black bear harvest, as total harvest actually increased during this period. In 1999 both the spring and fall take seasons were lengthened by adding 17 and 12 days, respectively, to the ends of the hunts.

The 2000-2010 Black bear Management Plan sets harvest objectives for DAU 4B to maintain harvest levels consistent with the “moderate” harvest targets of 25-35% of the male harvest to be 5 or older and 30-40% of the total harvest being female. Values for the 1997-1999 period were both within these ranges (27% of male harvest 5 or older and 37% of total harvest being female).

The breakdown of harvest by method and weapon type is shown in Tables 5 and 6, respectively. Bait and hound hunters have historically accounted for the majority of the harvest by method of take for this DAU. In 1999 method of harvest was nearly equally divided between bait (4), hounds (4), and incidental (5).

#### DEPREDACTIONS

One black bear depredation complaint was received from DAU 4B during this reporting period (Table 7). The complaint was handled by Wildlife Services and involved the taking of four lambs by a black bear.

#### DOG TRAINING SEASONS

The 1999 dog training season ran from June 16-July 31 in DAU 4B.

#### MANAGEMENT IMPLICATIONS

Harvest management criteria do not apply in this DAU due to low average annual harvest. However there had been concern about possible overharvest in this DAU at various times over the past 10 years based on the management criteria set forth in the 1992-2000 Black bear Management Plan, and all four overharvest criteria were exceeded for the 1997-1999 period. Reductions in the take season were implemented in 1993 in an attempt to reduce harvest, although these changes did not result in a reduction in harvest or an improvement in meeting overharvest criteria. The take seasons were lengthened in 1999 by adding 17 and 12 days, respectively, to the ends of the spring and fall hunts. The 1999 harvest dropped to its lowest level in the last ten-year period. Season length has been a poor predictor of overall harvest in DAU 4B in recent years.

However management criteria in the 2000-2010 Black bear Management Plan indicate that this population is harvested at a rate within the moderate range, which is the target level for this DAU.

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

#### ABSTRACT

Harvest management criteria generally do not apply in DAU 4C due to low average annual harvest. Concern over possible overharvest (based on criteria established in the 1992-2000 Black bear Management Plan) led to reductions in the take seasons, beginning in 1993, consistent with statewide reductions. Black bear harvest did not decline under the more restrictive season framework. The 1999 take season was lengthened by a total of 17 days and 32 black bears were harvested. Three of the four harvest criteria (1992-2000 Plan) were exceeded in 1999, while three of

the four were also exceeded for the 1997-1999 period. However new harvest criteria established in the 2000-2010 Black bear Management Plan indicate that this population is being harvested at the objective level of light harvest.

### MANAGEMENT DIRECTION

The 1992-2000 Black bear Management Plan stated that the Department will manage black bear populations in Area 4 to reduce or maintain current harvest levels. The 2000-2010 Black bear Management Plan set management objectives for DAU 4C to maintain harvest levels consistent with the moderate harvest targets of 25-35% age 5+ black bears in the male harvest and 30-40% females in the total harvest, calculated on a three-year running average. DAU 4C includes part of the Greater Yellowstone Ecosystem, which supports a grizzly black 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 vulnerable to harvest because the limited habitat is often isolated from adjacent black 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.

After an unusually cool and wet spring in 1999, the summer and fall were warm and dry. Winter precipitation was below normal while temperatures were well above average. The spring of 2000 came early, and warm and dry conditions have persisted.

### 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.

Thirty-two black bears were checked from DAU 4C in 1999. This total represents the largest total observed in the preceding ten-year period and an increase of 129% over the 14 black bears harvested in 1998. 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 harvest criteria generally do not apply in this DAU due to low average annual harvest levels, harvest data and plan criteria are presented in Table 10. Three of the four 1992-2000 Black bear Management Plan overharvest criteria were exceeded in 1999, while three of the four were also exceeded for the 1997-1999 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, but did nothing to reduce harvest, as total harvests in 1994, 1995, 1996, and 1997 represented the four largest totals in the previous ten-year period. In 1999 the fall take season was lengthened by 17 days.

The breakdown of 1999 harvest by method and weapon type is shown in Tables 11 and 12, respectively.

The 2000-2010 Black bear Management Plan sets harvest objectives for DAU 4C to maintain harvest levels consistent with the “moderate” harvest targets of 25-35% of the male harvest to be 5 or older and 30-40% of the total harvest being female. Values for the 1997-1999 period both exceeded these targets, indicating a lightly harvested population (52% of male harvest 5 or older and 25% of total harvest being female).

#### DEPREDATIONS

One black bear depredation complaint was received from DAU 4C during this reporting period (Table 7). Twenty-one beehives were destroyed in Unit 62.

#### DOG TRAINING SEASON

The 1999 dog training season ran from June 16-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

Harvest management criteria generally 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 did not result in a reduction in overall harvest or an improvement in meeting overharvest criteria. Harvest has fluctuated dramatically in recent years independent of season length. The fall take season was lengthened by 17 days in 1999 consistent with statewide liberalization.

However management criteria in the 2000-2010 Black bear Management Plan indicate that this population is harvested at a rate that falls within the lightly harvested range.

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

### ABSTRACT

Overharvest was a concern in DAU 4D based on criteria established in the 1992-2000 Black bear Management Plan. Harvest management criteria (1992-2000 Plan) 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 did not decline noticeably under the more restrictive season framework. Spring and fall take seasons were lengthened by 17 and 12 days, respectively, in 1999 consistent with statewide liberalizations. Harvest criteria from the new 2000-2010 Black bear Management Plan indicate that this population was harvested at the targeted moderate level for the 1997-1999 period.

### MANAGEMENT DIRECTION

The 1992-2000 Black bear Management Plan stated that the Department will manage black bear populations in Area 4 to reduce or maintain current harvest levels. The 2000-2010 Black bear Management Plan set management objectives for DAU 4D to maintain harvest levels consistent with the moderate harvest targets of 25-35% age 5+ black bears in the male harvest and 30-40% females in the total harvest calculated on a three-year running average.

### 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 vulnerable to harvest because the limited habitat is often isolated from adjacent black 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.

After an unusually cool and wet spring in 1999, the summer and fall were warm and dry. Winter precipitation was below normal while temperatures were well above average. The spring of 2000 came early, and warm and dry conditions have persisted.

### 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 44 black bears were checked from DAU 4D in 1999 (Table 14). This represents the largest total in the last 10 years. The average annual harvest for the preceding three-year period (1996-1998) was 33.7. Age distribution of black bears checked from DAU 4D is shown in Table 15.

Harvest management criteria as established in the 1992-2000 Black bear Management Plan 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 (Table 14) 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 harvest 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) consistent with statewide reductions. These changes were ineffective in reducing black bear harvest. In 1999 both the spring and fall take seasons were lengthened by adding 17 and 12 days, respectively, to the ends of the hunts.

The 2000-2010 Black bear Management Plan sets harvest objectives for DAU 4D to maintain harvest levels consistent with the “moderate” harvest targets of 25-35% of the male harvest to be 5 or older and 30-40% of the total harvest being female. Values for the 1997-1999 period were both within these ranges (30% of male harvest 5 or older and 30% of total harvest being female).

#### DEPREDATIONS

Wildlife Services verified one complaint involving a black bear in DAU 4D during this reporting period (Table 7). The complaint involved the take of four sheep in Bonneville County.

#### DOG TRAINING SEASON

The 1999 dog training season ran from June 16-July 31 in DAU 4D.

#### MANAGEMENT IMPLICATIONS

Overharvest was a concern in DAU 4D based on criteria established in the 1992-2000 Black bear Management Plan. Harvest management criteria have consistently been exceeded over the last 10-year period. Reductions in length of take seasons were implemented in 1992 and furthered in 1993. These changes were ineffective in reducing black bear harvest. The take season was liberalized in 1999, resulting in the largest harvest of black bears in the DAU in recent history.

However management criteria in the 2000-2010 Black bear Management Plan indicate that this population is harvested at a rate that falls within the moderate range which is the target for this DAU.

## **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 likely offer an open season in Area 5 during the 2000-2010 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 likely offer an open season in Area 5 during the 1999-2010 planning period.

Table 1. Summary of Seasons by Method for DAUs 4B, 4C, and 4D, Fall 1999-Spring 2000.

Season Type <sup>a,b</sup>	DAU	Units	Season	
			Dates	Length (Days)
General, any legal weapon	4B	50, 51, 58, 59, 59A	9/15-10/31	47
			4/15-6/15	62
General, any legal weapon <sup>b</sup>	4C	60, 61, 62, 62A	9/15-10/31	47
			4/15-6/15	62
General, any legal weapon	4D	64, 65, 66, 66A, 67, 69, 76	9/15-10/31	47
			4/15-6/15	62
Pursuit only	4B	50, 51, 58, 59, 59A	6/16-7/31	46
Pursuit only <sup>c</sup>	4C	61	6/16-7/31	46
Pursuit only	4D	64, 65, 66, 66A, 67, 69, 76	6/16-7/31	46
Controlled, any legal weapon	None			

<sup>a</sup> Any black bear is legal except female black bear accompanied by young.

<sup>b</sup> 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.

<sup>c</sup> 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 black bear taken in DAU 4B<sup>a</sup> 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
1998	12	9	21	3	4	7	15	13	28
1996-1998 Average	14.3	6.7	21.0	3.3	3.3	6.7	17.7	10.0	27.7
1999	5	2	7	7	1	8	12	3	15
Difference (%)	-65	-70	-67	+112	-70	+19	-32	-70	-46

<sup>a</sup> Includes Units 50, 51, 58, 59, and 59A.

Table 3. Age distribution of black bear checked from DAU 4B<sup>a</sup>, 1991-1999.

Age	1991		1992		1993		1994		1995		1996		1997		1998		1999 <sup>b</sup>	
	M	F	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	0	0
Cub	1	0	0	0	0	0	0	0	0	0	0	1	0	0	3	4	1	0
1	1	0	2	3	2	0	2	0	3	0	3	0	3	0	1	1	0	0
2	3	1	1	1	2	0	1	1	1	1	1	1	1	1	4	2	0	1
3	1	0	3	0	4	2	2	1	1	1	4	1	1	1	2	2	3	0
4	2	1	3	0	0	3	5	4	2	0	5	0	2	0	1	1	0	0
5	0	0	0	1	0	0	1	2	3	2	2	2	3	2	0	0	0	0
6	1	0	1	2	1	0	3	0	0	0	1	0	0	0	3	0	0	1
7	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
8	0	0	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	0	0
10+	1	0	0	2	0	1	0	1	1	2	2	1	1	2	1	3	0	0
Total	11	4	13	10	10	7	15	10	11	7	21	7	11	7	15	13	4	2

<sup>a</sup> Includes Units 50, 51, 58, 59, and 59A.

<sup>b</sup> Age data for fall portion of 1999 season not available in time for inclusion in this report.

Table 4. Values of the 1992-2000 management plan criteria for DAU 4B, 1985-1999.

Year	N1	% Females	Median Age		
			Males	Females	Total
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	28	*46	*2	*2	*2
1999	15	20	*3 <sup>a</sup>	*1 <sup>a</sup>	*3 <sup>a</sup>
1997-1999 Average	24.0	*40	*3 <sup>a</sup>	*3 <sup>a</sup>	*3 <sup>a</sup>
Desired Levels		<35	≥4 years	≥6 years	≥5 years

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

<sup>a</sup> Age data for fall portion of 1999 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), 1987-1999.

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
1999	3	1	4	0	1	1	4	1	0	0	12	3

Table 6. Weapon type used to harvest black bear in DAU 4B, (Units 50, 51, 58, 59, and 59A), 1987-1999.

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
1999	8	3	1	0	1	0	2	0	0	0	12	3

Table 7. Black bear depredation complaints handled in the Upper Snake Region, 1991-1999.

DAU	1991	1992	1993	1994	1995	1996	1997	1998	1999
4B	0	0	0	0	1	2	0	0	2
4C	0	1	1	10	11	11	8	0	1
4D	0	2	6	15	9	1	4	1	1
Total	0	3	7	25	21	14	12	1	4

Table 8. Black bear harvest by season and sex of black bear taken in DAU 4C<sup>a</sup> 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
1998	4	1	5	6	3	9	10	4	14
1996-1998 Average	9.3	2.7	10.7	6.3	5.0	11.3	15.7	6.3	22.0
1999	14	3	17	10	5	15	24	8	32
Difference (%)	+51	+11	+59	+59	0	+33	+53	+27	+45

<sup>a</sup> Includes Units 60, 61, 62, and 62A.

Table 9. Age distribution of black bear checked from DAU 4C<sup>a</sup>, 1991-1999.

Age	1991		1992		1993		1994		1995		1996		1997		1998		1999 <sup>b</sup>	
	M	F	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	0	0
Cub	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0
1	1	0	1	0	0	0	6	1	4	0	3	2	1	0	1	0	0	0
2	0	1	1	0	1	0	1	1	1	1	3	1	2	0	0	0	0	0
3	3	1	0	1	2	1	3	1	3	3	3	2	3	1	1	0	3	1
4	1	0	1	2	1	1	2	1	2	1	1	1	6	2	1	2	2	0
5	0	0	3	0	1	0	1	2	2	0	3	0	3	0	1	0	2	1
6	2	0	0	0	0	0	1	0	1	1	1	0	2	0	2	1	2	0
7	0	0	0	0	1	0	1	0	0	1	1	0	1	0	0	0	2	0
8	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1	0
9	0	1	0	0	0	1	1	0	0	0	1	0	1	0	1	0	1	0
10+	1	0	1	0	2	1	0	2	2	2	1	3	1	1	1	1	1	1
Total	9	4	8	4	9	6	18	8	18	11	18	9	18	5	10	4	14	3

<sup>a</sup> Includes Units 60, 61, 62, and 62A.

<sup>b</sup> Age data for fall portion of 1999 season not available in time for inclusion in this report.

Table 10. Values of the 1992-2000 management plan criteria for DAU 4C, 1985-1999.

Year	N1	% Females	Median Age		
			Males	Females	Total
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	4.5	*5	*4.5
1999	32	25	5.5 <sup>a</sup>	*5 <sup>a</sup>	5 <sup>a</sup>
1997-1999 Average	23	23	5 <sup>a</sup>	*4.5 <sup>a</sup>	5 <sup>a</sup>
Desired Levels		<35	≥4 years	≥6 years	≥5 years

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

<sup>a</sup> Age data for fall portion of 1999 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<sup>a</sup>, 62<sup>a</sup>, and 62A<sup>a</sup>), 1987-1999.

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
1999	7	1	1	0	4	3	11	3	1	1	24	8

<sup>a</sup> 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), 1987-1999.

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
1999	16	8	7	0	0	0	1	0	0	0	23	9

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 Black bear	90% Confidence Interval (+/-)
1992 <sup>a</sup>	1	6/24-7/11	16	16	94	0	0.0
1993 <sup>a</sup>	1	6/24-7/1	18	18	107	1	0-4.0%
1999 <sup>b</sup>	1	6/24-6/29	23	23	138	0	0.0

<sup>a</sup> Survey conducted in Units 66A and 76.

<sup>b</sup> Survey conducted in Units 66, 66A, 67, and 76.

Table 14. Black bear harvest by season and sex of black bear taken in DAU 4D<sup>a</sup> 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
1998	20	5	25	5	3	9 <sup>b</sup>	25	8	34 <sup>b</sup>
1996-1998 Average	17.0	4.7	21.7	6.3	5.3	12.0	23.3	10.0	33.7
1999	18	4	22	11	11	22	29	15	44
Difference (%)	+6	-15	+1	+75	+208	+83	+24	+50	+31

<sup>a</sup> Includes Units 64, 65, 66, 66A, 67, 69, and 76.

<sup>b</sup> Sex was not reported for one black bear.

Table 15. Age distribution of black bear checked from DAU 4D<sup>a</sup>, 1991-1999.

Age	1991		1992		1993		1994		1995		1996		1997		1998		1999 <sup>b</sup>	
	M	F	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	1	0
Cub	0	0	0	0	0	0	0	1	0	0	0	1	1	0	3	1	2	1
1	2	1	2	1	1	0	3	0	0	0	0	3	2	1	3	0	2	0
2	3	2	5	2	3	4	5	2	2	2	7	1	8	0	6	2	2	1
3	3	2	3	0	0	1	5	3	5	2	3	2	3	3	3	1	3	0
4	3	0	0	1	3	0	2	1	0	0	2	1	4	3	3	1	2	1
5	1	1	1	3	2	0	0	1	1	0	2	1	3	0	3	0	1	1
6	1	1	0	1	1	0	0	0	1	0	2	0	3	2	0	1	3	0
7	0	1	1	1	1	0	0	1	0	1	0	0	1	1	3	1	1	0
8	0	1	0	0	0	1	0	0	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	1	0	0
10+	0	1	0	1	2	1	0	0	0	0	1	0	1	1	1	0	1	0
Total	14	12	15	10	15	9	15	9	12	5	17	11	27	11	25	8	18	4

<sup>a</sup> Includes Units 64, 65, 66, 66A, 67, 69, and 76.

<sup>b</sup> Age data for fall portion of 1999 season not available in time for inclusion in this report.

Table 16. Values of the 1992-2000 management plan criteria for DAU 4D, 1985-1999.

Year	N1	% Females	Median Age		
			Males	Females	Total
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		*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	*4	*3
1999	44	34	*3 <sup>a</sup>	*3 <sup>a</sup>	*3 <sup>a</sup>
1997-1999 Average	38.7	25	*3 <sup>a</sup>	*3 <sup>a</sup>	*4 <sup>a</sup>
Desired Levels		<35	≥4 years	≥6 years	≥5 years

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

<sup>a</sup> Age data for fall portion of 1999 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), 1987-1999.

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
1999	14	5	5	3	2	3	8	4	0	0	29	15

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), 1987-1999.

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
1999	14	12	11	2	0	0	4	1	0	0	29	15

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

**STATE:** Idaho                      **JOB TITLE:** Black bear Surveys and Inventories  
**PROJECT:** W-170-R-24  
**SUBPROJECT:** 7                      **STUDY NAME:** Big Game Population Status, Trends,  
Use, and Associated Habitat  
**STUDY:** I  
**JOB:** 9                                      Studies  
**PERIOD COVERED:** July 1, 1999 to June 30, 2000

**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 171 black bears were harvested. In the wet years of 1997 and 1998, there were few depredation problems and about 100 black bears harvested. However 1999 was also a relatively dry year, but again only 100 black bears were harvested. Although the 2000-2010 Black bear Management Plan specifies moderate to heavy harvest rates in these DAUs, indicator criteria indicate light harvest rates in all of them. Accordingly, additional days of hunting opportunity were added to both the spring and fall seasons in these DAUs. 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 the 2000-2010 Black bear Management Plan. Management direction for DAU 1I specifically is to maintain a heavy harvest rate; less than 25% age 5+ black bears in the male harvest and over 40% females in the harvest (Table 1).

**BACKGROUND**

DAU 1I is bordered by the Frank Church Wilderness on the north and includes part of the Sawtooth Wilderness on the south. Virtually all of DAU 1I 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 2.

This area is characterized by high snowfall and cold winter temperatures. Summer 1999 was characterized by below normal precipitation and warm temperatures. Fall 1999 received below normal precipitation, with above normal temperatures through November.

#### POPULATION SURVEYS

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

#### HARVEST CHARACTERISTICS

As characteristic of a dry year, the 1999 harvest was well above the 1996-1998 average (Table 3). Dry fall seasons generally make females and young black bears much more vulnerable than usual. However in 1999 the female harvest remained the same while male harvest increased. The sex and age composition of the DAU 1I black bear harvest indicates a much lighter harvest rate than specified in the 2000-2010 management plan (Tables 4 and 5). In past years about half the black bears in this DAU were taken by still and incidental hunters (Table 6). Most black bears are taken by rifle (Table 7).

#### DEPREDACTIONS

The depredations in this DAU usually accounted for the majority of the black bear problems in the Salmon Region prior to 1994 (Table 18). Complaints were chronic problems with garbage in the same locations each year. The Forest Service provided black 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 a heavy harvest rate (less than 25% age 5+ black bears in the male harvest and over 40% females in the harvest). Harvest indicator criteria for this DAU suggest a very light harvest rate. Accordingly, the Spring 2000 black bear season ending date was extended from June 7 to June 30, creating an additional 24 days to hunt black bears. In addition the Fall 1999 season in Unit 36 opened August 30, 16 days earlier than in prior years.

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

#### MANAGEMENT DIRECTION

Follow statewide management direction in the 2000-2010 Black bear Management Plan. Management direction for DAU 1J specifically is to maintain a moderate harvest rate; 25-35% age 5+ black bears in the male harvest and over 30-40% females in the harvest (Table 1).

## 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 2.

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 black bears per year, compared to 66-82 black bears per year during the dry 1993-1995 years (Table 8). Although 1999 was a dry year, the DAU black bear harvest did not increase. The sex and age composition of the DAU 1J black bear harvest indicates a lighter harvest rate than specified in the 2000-2010 management plan (Tables 9 and 10). Over the last ten years, the bait and hound hunter harvest has averaged under 30% females compared to the still hunter harvest of 35% females and incidental hunter harvest averaging 41% females (Table 11). Most black bears are taken by rifle (Table 12).

## DEPREDACTIONS

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 black 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 (Table 18). No complaints were handled during the wet 1997 summer, but 11 complaints occurred in 1998. Only one complaint was received during 1999.

## MANAGEMENT IMPLICATIONS

Management direction for this area is to maintain a moderate harvest rate (25-35% age 5+ black bears in the male harvest and 30-40% females in the harvest). Harvest indicator criteria for this DAU suggest a light harvest rate. Accordingly, the Fall 1999 season opened August 30, 16 days

earlier than in prior years, and the Spring 2000 black bear season ending date was extended from June 15 to June 30, creating a total of 31 additional days to hunt black bears.

## AREA 4

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

### MANAGEMENT DIRECTION

Follow statewide management direction in the 2000-2010 Black bear Management Plan. Management direction for DAU 4E specifically is to maintain a moderate harvest rate, 25-35% age 5+ black bears in the male harvest and over 30-40% females in the harvest (Table 1).

### 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 2).

### POPULATION SURVEYS

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

### HARVEST CHARACTERISTICS

Typically, 25-35 black bears are harvest in DAU 4E, with harvest dropping as low as 14 black bears in 1992 and as high as 40 black bears in 1995 (Table 13). The 39 black bears harvested in 1999 is one of the higher harvest years on record. The sex and age composition of the DAU 4E black bear harvest indicates a somewhat lighter harvest rate than specified in the 2000-2010 management plan (Tables 14 and 15). With the exception of 1998, when few males were harvested, the % Female criterion has been within the desired range the past five years. Similarly the male harvest age structure has been older than specified in the management plan. 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 (48%) (Table 16). Most black bears are harvested by rifle (Table 17).

### DEPREDATIONS

Except for 1994, an unusually dry year, DAU 4E experiences relatively few depredation problems (Table 18). No complaints were reported in 1996, 1997, or 1999. Four complaints were handled in 1998.

## MANAGEMENT IMPLICATIONS

Management direction for this area is to maintain a moderate harvest rate (25-35% age 5+ black bears in the male harvest and 30-40% females in the harvest). Harvest indicator criteria for this DAU suggest a light harvest rate. Accordingly, the Fall 1999 season opened August 30, 16 days earlier than in prior years, and the Spring 2000 black bear season ending date was extended from June 15 to June 30, creating a total of 31 additional days to hunt black bears.

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 for DAUs 1I, 1J, and 4E, July 1, 1999-June 30, 2000.

Season Type <sup>a</sup>	DAU	Units	Season	
			Dates	Length (Days)
General, any legal weapon	1I	34, 35	9/15-10/31	47
		36	8/30-10/31	63
		34, 35, 36	4/15-6/30	77
General, any legal weapon	1J	21, 21A, 28, 36B	8/30-10/31	63
			4/15-6/30	77
General, any legal weapon	4E	29, 30, 30A, 36A, 37, 37A	8/30-10/31	63
			4/15-6/30	77
Pursuit only	1I	34, 35, 36	7/01-7/31	31
Pursuit only	1J	21, 21A, 28, 36B	7/01-7/31	31
Pursuit only	4E	29, 30, 30A, 36A, 37, 37A	7/01-7/31	31

<sup>a</sup> Any black bear is legal except female black bear accompanied by young.

Table 3. Black bear harvest by season and sex of black bear taken in DAU 11<sup>a</sup> since 1983.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1983	9	2	11	1	1	2	10	3	13
1984	7	1	8	6	2	8	13	3	16
1985	3	1	4	3	0	3	6	1	7
1986	11	2	13	8	3	11	19	5	24
1987	5	1	6	9	2	11	14	3	17
1988	9	1	10	9	4	14	18	5	24
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
1998	6	2	8	7	2	9	13	4	17
1997-1999									
Average	10	3	13	10	3	13	20	6	26
1999	17	2	19	16	4	20	33	6	39
Difference	+7	-1	-6	+6	+1	+7	+13	0	+13

<sup>a</sup> Includes Game Management Units 34, 35, and 36.

Table 4. Age distribution of black bear checked from DAU 11<sup>a</sup>.

Age	1993		1994		1995		1996		1997		1998	
	M	F	M	F	M	F	M	F	M	F	M	F
Unk	2	3	4	5	4	1	2	0	1	2	2	0
Cub	0	0	0	0	1	0	0	1	0	0	0	0
1	2	2	4	2	4	1	2	0	0	1	0	0
2	1	0	8	4	1	2	3	1	0	0	1	1
3	0	3	2	1	2	3	2	0	4	1	1	0
4	5	2	3	3	4	0	2	1	6	0	4	1
5	1	1	5	0	1	0	3	0	3	2	1	0
6	2	1	1	0	2	0	1	1	1	0	2	1
7	3	0	1	1	2	1	1	1	0	0	0	0
8	2	2	2	1	1	0	0	0	0	0	0	0
9	4	0	1	0	2	2	0	0	0	0	0	1
10+	1	3	3	6	4	5	1	2	0	2	2	0
Total	23	17	34	23	28	15	17	7	15	7	13	4

<sup>a</sup> Includes Game Management Units 34, 35, and 36.

Table 5. Values of the management plan criteria for DAU 11.

Year	2000–2010 Management Criteria				Median Age	
	N <sup>a</sup>	% Females	% Males Age 5+	N <sup>b</sup>	Males	Females
1990	42	26	64	28	6	8
1991	28	29	78	18	8	5
1992	28	21	45	20	4	6
1993	40	43	62	21	6	5
1994	57	40	43	30	4	4
1995	45	33	46	26	5	8
1996	24	29	40	15	4	6
1997	23	35	27	15	4	5
1998	17	24	45	11	4	5
1999	39	15				
1997-1999 Average		*23	*48			
Desired levels		>40%	<25%			

<sup>a</sup> Number of black bears that were sexed (excluding unknowns).

<sup>b</sup> Number of black bears that were aged (excluding unknowns).

\* Values do not meet desired criteria.

Table 6. Method of harvest of black bear taken in DAU II (Units 34, 35, and 36), 1990-1999.

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
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
1999	12	2	4	1	8	2	9	1	0	0	33	6

Table 7. Weapon type used to harvest black bear in DAU II (Units 34, 35, and 36), 1990-1999.

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
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
1999	24	4	8	1	1	0	0	1	0	0	33	6

Table 8. Black bear harvest by season and sex of black bear taken in DAU 1J<sup>a</sup> since 1983.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1983	26	8	34	6	7	13	32	15	47
1984	11	10	21	16	13	29	27	23	50
1985	21	7	28	16	4	20	37	11	48
1986	23	8	31	23	18	41	46	26	72
1987	15	5	20	21	18	39	36	23	59
1988	23	8	31	25	20	45	48	28	76
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	20	11	31	12	11	23	32	22	54
1998	27	7	34	14	5	19	41	12	53
1997-1999									
Average	25	8	33	12	8	20	37	15	52
1999	28	5	33	9	7	16	37	12	49
Difference	+3	-3	0	-3	-1	-4	0	-3	-3

<sup>a</sup> Includes Game Management Units 21, 21A, 28, and 36B.

Table 9. Age distribution of black bear checked from DAU 1J<sup>a</sup>.

Age	1993		1994		1995		1996		1997		1998	
	M	F	M	F	M	F	M	F	M	F	M	F
Unk	1	2	1	1	1	0	2	0	1	3	5	12
Cub	0	1	0	0	1	0	0	0	0	1	1	0
1	5	1	10	3	3	2	3	0	5	2	4	0
2	5	1	9	1	8	7	3	0	4	2	9	1
3	15	3	8	2	6	8	9	2	4	2	5	1
4	9	2	11	5	5	2	10	4	3	2	2	1
5	1	1	4	4	3	9	3	1	6	4	5	1
6	1	0	2	1	5	0	5	1	0	0	4	2
7	7	2	0	2	1	0	1	1	2	0	2	0
8	0	1	4	0	1	0	1	1	3	1	3	2
9	0	2	0	0	2	2	1	1	0	1	0	0
10+	4	2	8	6	3	7	5	1	4	4	1	3
Total	48	18	57	25	39	37	43	12	32	22	41	12

<sup>a</sup> Includes Game Management Units 21, 21A, 28, and 36B.

Table 10. Values of the management plan criteria for DAU 1J.

Year	2000 – 2010 Management Criteria				Median Age	
	N <sup>a</sup>	% Females	% Males Age 5+	N <sup>b</sup>	Males	Females
1990	72	44	38	39	4	6
1991	70	37	57	42	5	6
1992	47	28	50	32	5	6
1993	66	27	28	47	3	5
1994	81	31	31	55	4	5
1995	73	48	39	38	4	4
1996	55	22	39	41	4	4
1997	54	41	48	31	4	4
1998	53	23	42	36	3	6
1999	49	24	64	36	6	3
1997-1999 Average		*29	*51			
Desired levels		30-40%	25-35%			

<sup>a</sup> Number of black bears that were sexed (excluding unknowns).

<sup>b</sup> Number of black bears that were aged (excluding unknowns).

\* Values do not meet desired criteria.

Table 11. Method of harvest of black bear taken in DAU 1J (Units 21, 21A, 28, and 36B), 1990-1999.

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
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
1999	10	2	14	2	8	2	5	5	0	1	37	12

Table 12. Weapon type used to harvest black bear in DAU 1J (Units 21, 21A, 28, and 36B), 1990-1999.

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
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
1999	30	11	6	1	0	0	1	0	0	0	37	12

Table 13. Black bear harvest by season and sex of black bear taken in DAU 4E<sup>a</sup> since 1983.

Year	Spring			Fall			Entire Season		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1983	11	4	15	2	2	4	13	6	19
1984	8	10	18	3	1	4	11	11	22
1985	14	8	22	5	3	8	19	11	30
1986	19	1	20	7	3	10	26	4	30
1987	11	10	21	7	6	13	18	16	34
1988	12	5	17	12	3	15	24	8	32
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
1998	9	9	18	2	6	8	11	15	26
1997-1999									
Average	17	9	26	1	5	6	18	13	31
1999	25	9	34	0	5	5	25	14	39
Difference	+8	0	+8	-1	0	-1	+7	+1	+8

<sup>a</sup> Includes Game Management Units 29, 30, 30A, 36A, 37, and 37A.

Table 14. Age distribution of black bear checked from DAU 4E<sup>a</sup>.

Age	1993		1994		1995		1996		1997		1998	
	M	F	M	F	M	F	M	F	M	F	M	F
Unk	1	0	2	0	2	2	0	0	0	2	0	1
Cub	1	0	1	1	0	0	0	0	1	0	0	0
1	3	2	5	1	2	0	1	1	0	0	1	2
2	3	1	4	1	1	2	1	0	4	0	4	3
3	7	2	0	4	8	4	3	2	3	2	0	0
4	2	1	4	2	5	1	5	2	3	2	0	2
5	0	0	1	0	4	0	2	0	3	1	1	2
6	2	0	0	1	0	0	3	1	0	0	1	3
7	1	1	1	0	0	1	0	0	3	0	1	0
8	0	0	1	0	0	0	0	0	2	0	2	0
9	0	0	0	0	2	0	0	0	0	0	1	0
10+	2	2	2	5	2	4	2	4	0	4	0	2
Total	22	9	21	15	26	14	17	10	19	11	11	15

<sup>a</sup> Includes Game Management Units 29, 30, 30A, 36A, 37 and 37A.

Table 15. Values of the management plan criteria for DAU 4E.

Year	2000 – 2010 Management Criteria				Median Age	
	N <sup>a</sup>	% Females	% Males Age 5+	N <sup>b</sup>	Males	Females
1990	32	25	43	23	4	2
1991	24	50	27	11	2	8
1992	14	29	80	10	6	6
1993	31	29	24	21	3	3
1994	36	42	26	19	2	4
1995	40	38	33	24	4	4
1996	27	37	41	17	4	4
1997	30	37	42	19	4	5
1998	26	58	55	11	5	5
1999	39	36	52	25	5	5
1997-1999 Average		*42	*49			
Desired levels		30-40%	25-35%			

<sup>a</sup> Number of black bears that were sexed (excluding unknowns).

<sup>b</sup> Number of black bears that were aged (excluding unknowns).

\* Values do not meet desired criteria.

Table 16. Method of harvest of black bear taken in DAU 4E (Units 29, 30, 30A, 36A, 37, and 37A), 1990-1999.

Year	Bait		Hound		Still		Incidental		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
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
1999	10	5	9	3	2	3	3	2	1	1	25	14

Table 17. Weapon type used to harvest black bear in DAU 4E (Units 29, 30, 30, 30A, 36A, 37 and 37A), 1990-1999.

Year	Rifle		Archery		Muzzleloader		Pistol		Other		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
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
1999	14	8	4	3	0	0	7	2	0	1	25	14

Table 18. Black bear depredation complaints handled in the Salmon Region, 1990-1999.

DAU	Year										
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
II	11	7	8	22	11	?	?	?	12	2	
IJ	7	1	1	5	33	6	12	0	11	1	
4E	0	0	0	3	20	1	0	0	4	0	
Total	18	8	9	30	64	8	14	0	27	3	

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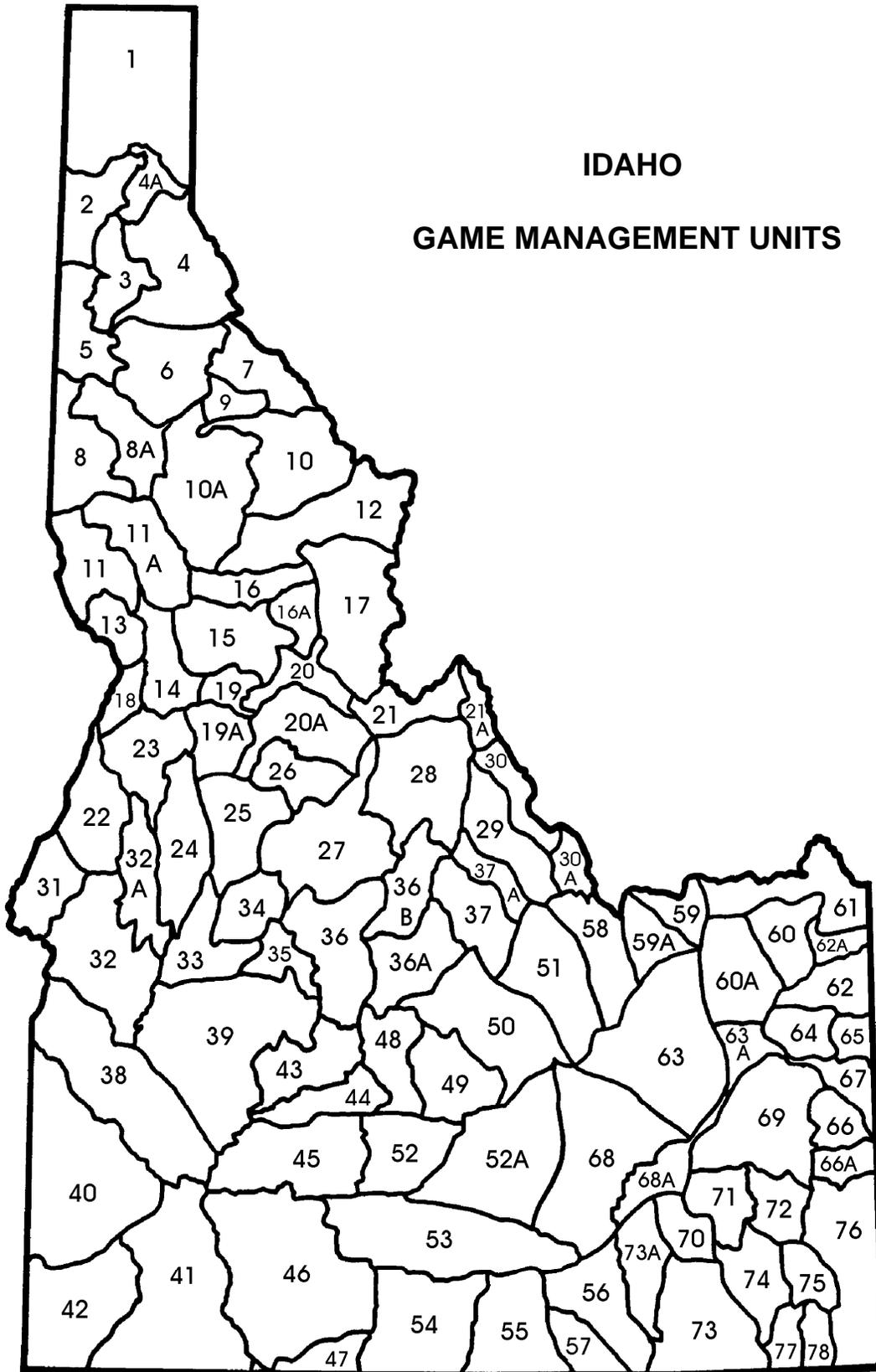
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IDAHO

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.

