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DEPARTMENT OF FISH AND GAME

Stephen P. Mealey, Director

Project W-170-R-22

Job Progress Report



BLACK BEAR

Study I, Job 9

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in Idaho 2

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE: Idaho **JOB TITLE:** Black Bear Surveys and Inventories
PROJECT: W-170-R-22
SUBPROJECT: 1-7 **STUDY NAME:** Big Game Population Status, Trends, Utilization and Associated Habitat
STUDY: I
JOB: 9 Studies
PERIOD COVERED: July 1, 1997 to June 30, 1998

BLACK BEAR - STATEWIDE

SUMMARY

In the past, the Idaho Department of Fish and Game has used two methods to collect harvest information on black bears. However, due to recent budget cutbacks, the telephone harvest survey has been discontinued. The Department continues to use the Mandatory Check and Report system to collect data on harvested bears. 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 28,641 black bear tags were sold to resident and nonresident bear hunters in 1997. The Department also issued 1,199 baiting permits and sold 1,257 hound hunter permits in 1997.

Successful black bear hunters checked a total of 1,552 bears at Department regional offices or official checkpoints. A total of 652 (42%) of the black bears was taken during the spring season and males comprised 70% and 60% of the spring and fall harvest. The majority of bears taken during the 1997 season were taken by still hunters (509). Hunters using bait harvested 278 bears; hunters using dogs took 240 bears; and incidental hunters took 492 bears. Archers accounted for 132 black bears in 1997. Hunters using guides took 160 black bears; 42% over bait, 25% using dogs, and 25% using still hunting methods.

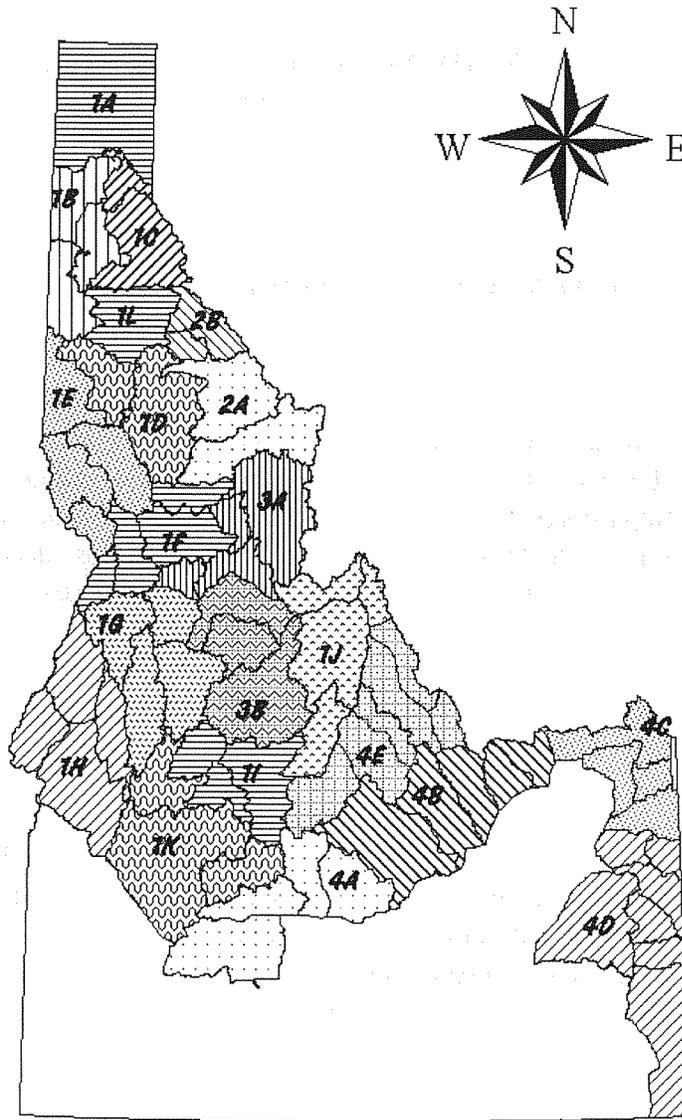


Figure 1. Twenty-one (21) data analysis units (DAUs) for black bear management in Idaho.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE: Idaho **JOB TITLE:** Black Bear Surveys and Inventories
PROJECT: W-170-R-22
SUBPROJECT: 1 **STUDY NAME:** Big Game Population Status, Trends,
Utilization and Associated Habitat
Studies
STUDY: I
JOB: 9
PERIOD COVERED: July 1, 1997 to June 30, 1998

BLACK BEAR - PANHANDLE REGION

ABSTRACT

Harvest was at or below normal in the spring, but was offset by a higher than normal fall harvest in 1997. Overall, male harvest was 16% above the five-year average, while the female harvest was up 41%. The 1997 black bear harvest in the Panhandle Region totaled 586, with 38% females in the harvest. The three-year average is 34% females in the harvest. The previous five-year average is 34% females in the harvest. As a whole, the Panhandle Region black bear population meets the desired condition for the percentage of females in the harvest.

AREA 1

MANAGEMENT DIRECTION

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

DAU 1A (GMU 1)

ABSTRACT

Reported harvest of black bear in DAU 1A was 233 during 1997. Age structure information indicates the population is seeing improved recruitment to older age classes for both sexes. The percentage of females in the harvest is at desired levels.

BACKGROUND

DAU 1A is one of 12 DAUs comprising Management Area 1. Black bear management is heavily influenced by grizzly bear management needs in this DAU, as it includes parts of the Selkirk and Cabinet-Yaak Grizzly Bear Recovery areas. Consequently, this DAU has been closed to use of bait since 1984 and to the use of hounds since 1988. Since 1991, a small controlled hunt allowing use of hounds has been allowed in a portion of DAU 1A outside of these recovery areas. During 1993 the season was shortened from 108 to 80 days and has since been increased to the current 96 days (Table 1).

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

HARVEST CHARACTERISTICS

Mandatory Check

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

The 233 black bears checked during 1997 was 25% above that of the past five-year average (Table 2). The spring 1997 kill was near normal but was off-set somewhat by a higher than normal fall kill.

Sex Ratio/Age Structure

The percentage of females in the 1997 harvest was 33% and the 3-year average was 32%. This is within the "desired" category according to the 1992-2000 Black Bear Management Plan.

Method of Take

Fifty-eight percent of the 1997 black bear harvest in DAU 1A was by hunters specifically seeking and stalking black bear (Table 3). Thirty-five percent were killed incidental to other activities, such as hunting other big game species, camping, firewood cutting, and other activities. This represents a substantial increase in incidental harvest over past years.

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 4).

DEPREDACTIONS

Depredations have been a significant problem in DAU 1A, largely because of sanitation problems in the Priest Lake area. Steps have been taken to address some of these sanitation issues at county dump sites and state parks, but problems will likely persist.

DOG TRAINING SEASONS

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

MANAGEMENT IMPLICATIONS

This population is within the desired level for the percentage of females in the harvest. Age data for 1997 are unavailable.

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

ABSTRACT

Reported harvest of black bear in DAU 1B was 119 during 1997. The percentage of females in the harvest was above the desired level for 1997 (39%) and the 3-year average is at the desired level (35%).

BACKGROUND

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

HARVEST CHARACTERISTICS

Mandatory Check

The 1997 harvest of 119 black bears is 27% above that for the previous five years, with most of this increase occurring during fall (Table 6).

Sex Ratio/Age Structure

Age data are unavailable for 1997. The percentage of females in the harvest was 39% during 1997. The three-year average to 35% was at the "desired" category.

Method of Take

Use of baiting and hounds is substantial in DAU 1B. Thirty-five percent of the black bears harvested in this DAU are taken with one of these aids (Table 7). Still hunting and incidental harvest accounted for 3% and 29% of the harvest, respectively.

Weapon

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

DEPREDATIONS

Twenty-two black bear depredations were handled in DAU 1B during 1996, a normal level of complaints (Table 5).

DOG TRAINING SEASONS

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

MANAGEMENT IMPLICATIONS

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

DAU 1C (GMUs 4 AND 4A)

ABSTRACT

Reported harvest of black bear in DAU 1C was 110 during 1997, up 28% from the 5-year average.

BACKGROUND

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

HARVEST CHARACTERISTICS

Mandatory Check

The harvest of black bears from DAU 1C has increased slowly since 1983, peaking with the 1992 harvest. Season restrictions beginning in 1993 reduced harvest; however, harvest has increased since then and is now near 1992 levels (Table 9). Reported harvest in 1997 was 110 black bears.

Sex Ratio/Age Structure

Age structure information is unavailable for 1997. Females made up 38% of the harvest in 1997. The three-year average of 36% females in the harvest put this DAU within the "overharvest" category.

Method of Take

This DAU has traditionally supported a substantial harvest for hunters using hounds. This type of use declined abruptly during 1992, concurrent with an increase in other categories (Table 10). Only 11% of the black bears harvested in this DAU are taken with the aid of hounds and/or bait. Still hunting and incidental kills made up 54% and 42% of the harvest, respectively.

Weapon

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

DEPREDACTIONS

DAU 1C has historically had few black bear depredations despite the high human presence found in the Silver Valley (Table 5). Two complaints were reported for 1996.

DOG TRAINING SEASONS

The 1997 dog training season in DAU 1C was May 16-July 31.

MANAGEMENT IMPLICATIONS

The percentage of females in the harvest is not meeting desired conditions in this DAU. The lower harvest associated with new season restrictions that began in 1993 has since returned to previous highs.

DAU 1L (GMU 6)

ABSTRACT

Harvest of black bears in DAU 1L was 80 during 1997, up 38% from the previous five-year average.

BACKGROUND

This DAU is a mix of private property, mainly timber company lands, with a mix of US Forest Service, Bureau of Land Management, and Idaho Department of Lands property. This area has been influenced heavily by logging and, to a lesser extent, by the large fires of the early 1900s.

Road densities range from moderate to high. Black bear densities are low, and baiting of black bears has not been allowed since 1983 because of low densities.

HARVEST CHARACTERISTICS

Mandatory Check

The harvest in this DAU has fluctuated little since the mandatory check began in 1983, ranging between 50 and 80 black bears (Table 12). Harvest in 1997 showed a 38% increase over the previous 5-year average and a high percentage of females in the harvest.

Sex Ratio/Age Structure

Age data are unavailable for 1997. Forty-five of the 1997 harvest was female, putting the three-year average at 38%, in the "overharvest" category.

Method of Take

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

Weapons

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

DEPREDATIONS

Depredations are virtually nonexistent in this DAU (Table 5), consistent with the low density of black bears here.

DOG TRAINING SEASONS

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

MANAGEMENT IMPLICATIONS

Harvest since 1983 has not grown rapidly as seen in other DAUs in the Panhandle Region. This DAU had a high percentage of females in the harvest in 1997 and does not meet the management criterion for desired conditions for the percentage of females in the harvest.

AREA 2

DAU 2B (GMUs 7 AND 9)

ABSTRACT

Harvest of black bears in DAU 2B was 44 during 1997, 6% above the previous five-year average. Age structure information and the sex ratio of the harvest indicates this population is in good shape relative to the remainder of the Panhandle.

BACKGROUND

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

HARVEST CHARACTERISTICS

Mandatory Check

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

Sex Ratio/Age Structure

Age data are unavailable for 1997. During the past three years, the harvest has been composed of only 24% females, putting this DAU well within the "desired" category.

Method of Harvest

Very little hound hunting occurs in DAU 2B. Baiting accounted for about 45% of the 1997 harvest (Table 16). Most of this is attributable to guided hunters.

Weapon

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

DEPREDATIONS

Depredations are virtually nonexistent in this DAU (Table 5) due to the lack of private property.

DOG TRAINING SEASONS

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

MANAGEMENT IMPLICATIONS

Harvest criteria are better met in this DAU than any other in the Panhandle Region. Season changes initiated in 1993 had little effect on harvest numbers in this DAU, likely due to the low level of still-hunting here. This population meets the desired condition for the percentage of females in the harvest.

Table 1. Summary of 1997 seasons by method for DAUs 1A, 1B, 1C, 1L, and 2B.

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

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

^b Dogs prohibited, bait prohibited.

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

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

^e Bait prohibited.

Table 2. Black bear harvest by season and sex of black bear taken in DAU 1A (GMU 1) since 1992.

| Year | Spring | | | Fall | | | Entire Season | | |
|--------|--------|--------|------------------|------|--------|------------------|------------------|--------|------------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1992 | 48 | 15 | 63 | 90 | 67 | 158 ^a | 138 | 82 | 221 ^a |
| 1993 | 49 | 20 | 71 ^a | 39 | 28 | 67 | 88 | 48 | 138 ^a |
| 1994 | 81 | 21 | 103 ^a | 51 | 35 | 87 ^a | 132 | 56 | 190 ^b |
| 1995 | 65 | 27 | 92 | 44 | 22 | 67 | 109 | 49 | 159 ^a |
| 1996 | 102 | 49 | 151 | 41 | 28 | 70 ^a | 143 | 77 | 221 ^a |
| Ave. | 69 | 26 | 96 | 53 | 36 | 90 | 122 | 62 | 186 |
| 1997 | 64 | 26 | 90 | 82 | 60 | 143 | 146 ^a | 86 | 233 |
| Change | 93% | 100% | 94% | 155% | 167% | 159% | 120% | 139% | 125% |

^a Totals include one black bear, sex unknown.

^b Totals include two black bears, sex unknown.

Table 3. Method of harvest of black bear taken in DAU 1A (GMU 1), 1992-97.

| Year | Bait | | | Hound | | | Still | | | Incidental | | | Unknown | | | Total | | |
|------|------|---|---|-------|---|---|-------|----|---|------------|----|---|---------|----|---|-------|----|---|
| | M | F | U | M | F | U | M | F | U | M | F | U | M | F | U | M | F | U |
| 1992 | 0 | 0 | 0 | 2 | 0 | 0 | 123 | 69 | 1 | 2 | 5 | 0 | 11 | 7 | 0 | 138 | 81 | 1 |
| 1993 | 1 | 0 | 0 | 0 | 3 | 0 | 74 | 40 | 0 | 10 | 4 | 0 | 3 | 1 | 1 | 88 | 48 | 1 |
| 1994 | 1 | 0 | 0 | 1 | 2 | 0 | 104 | 38 | 2 | 19 | 13 | 0 | 7 | 3 | 0 | 132 | 56 | 2 |
| 1995 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 18 | 1 | 9 | 8 | 0 | 59 | 23 | 0 | 110 | 49 | 1 |
| 1996 | 0 | 0 | 0 | 2 | 2 | 0 | 116 | 66 | 1 | 20 | 9 | 0 | 5 | 0 | 0 | 143 | 77 | 1 |
| 1997 | 1 | 0 | 0 | 0 | 1 | 0 | 84 | 51 | 0 | 53 | 28 | 0 | 8 | 6 | 1 | 146 | 86 | 1 |

Table 4. Weapon type used to harvest black bear in DAU 1A (GMU), 1992-97.

| Year | Rifle | | | Archery | | Muzzleloader | | Pistol | | Unknown | | Total | | |
|------|-------|----|---|---------|---|--------------|---|--------|---|---------|---|-------|----|---|
| | M | F | U | M | F | M | F | M | F | M | F | M | F | U |
| 1992 | 124 | 76 | 1 | 5 | 2 | 1 | 0 | 5 | 3 | 3 | 1 | 138 | 82 | 1 |
| 1993 | 78 | 45 | 1 | 3 | 1 | 1 | 0 | 3 | 0 | 3 | 3 | 88 | 49 | 1 |
| 1994 | 123 | 51 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 4 | 2 | 131 | 55 | 2 |
| 1995 | 102 | 46 | 1 | 3 | 1 | 1 | 0 | 2 | 1 | 2 | 1 | 110 | 49 | 1 |
| 1996 | 138 | 74 | 1 | 2 | 0 | 1 | 0 | 1 | 3 | 1 | 0 | 143 | 77 | 1 |
| 1997 | 138 | 83 | 0 | 1 | 1 | 0 | 0 | 4 | 1 | 1 | 1 | 144 | 86 | 1 |

Table 5. Black bear depredation complaints handled in the Panhandle Region, 1992-97.

| DAU | Year | | | | | | |
|-------|------|------|------|------|------|------|------|
| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
| 1A | 24 | 45 | 13 | 6 | 18 | 38 | 18 |
| 1B | 26 | 13 | 3 | 4 | 10 | 18 | 22 |
| 1C | 7 | 4 | 1 | 2 | 0 | 5 | 2 |
| 1L | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| 2B | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Total | 57 | 63 | 18 | 13 | 28 | 61 | 42 |

Table 6. Black bear harvest by season and sex of black bear taken in DAU 1B (GMUs 2, 3, and 5) since 1992.

| Year | Spring | | | Fall | | | Entire Season | | |
|--------|--------|--------|-----------------|------|--------|-----------------|---------------|--------|------------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1992 | 47 | 18 | 65 | 31 | 23 | 54 | 78 | 41 | 119 |
| 1993 | 10 | 12 | 22 | 15 | 21 | 36 | 25 | 33 | 58 |
| 1994 | 22 | 14 | 36 | 28 | 25 | 53 | 50 | 39 | 89 |
| 1995 | 34 | 6 | 43 ^b | 33 | 19 | 52 | 67 | 25 | 95 ^b |
| 1996 | 29 | 15 | 44 | 38 | 26 | 64 | 67 | 41 | 108 |
| Ave. | 28 | 13 | 42 | 29 | 23 | 52 | 57 | 36 | 94 |
| 1997 | 19 | 15 | 35 ^a | 51 | 32 | 84 ^a | 70 | 47 | 119 ^c |
| Change | 68% | 116% | 83% | 176% | 139% | 162% | 123% | 131% | 127% |

^a Total includes one black bear, sex unknown.

^b Total includes three black bears, sex unknown.

^c Total includes two black bears, sex unknown.

Table 7. Method of harvest of black bear taken in DAU 1B (GMUs 2, 3, 5), 1992- 1997

| Year | Bait | | | Hound | | | Still | | | Incidental | | | Unknown | | | Total | | |
|------|------|---|---|-------|----|---|-------|----|---|------------|----|---|---------|---|---|-------|----|---|
| | M | F | U | M | F | U | M | F | U | M | F | U | M | F | U | M | F | U |
| 1992 | 33 | 1 | 0 | 6 | 4 | 0 | 25 | 19 | 0 | 5 | 4 | 0 | 9 | 3 | 0 | 78 | 41 | 0 |
| 1993 | 5 | 8 | 0 | 4 | 11 | 0 | 11 | 11 | 0 | 4 | 3 | 0 | 1 | 0 | 0 | 25 | 33 | 0 |
| 1994 | 10 | 8 | 0 | 9 | 11 | 0 | 19 | 10 | 0 | 10 | 9 | 0 | 2 | 1 | 0 | 50 | 39 | 0 |
| 1995 | 11 | 5 | 0 | 9 | 6 | 0 | 17 | 8 | 1 | 8 | 3 | 0 | 22 | 4 | 2 | 67 | 26 | 3 |
| 1996 | 16 | 6 | 0 | 14 | 10 | 0 | 29 | 16 | 0 | 5 | 8 | 0 | 2 | 1 | 0 | 66 | 41 | 0 |
| 1997 | 11 | 9 | 0 | 12 | 11 | 0 | 25 | 11 | 1 | 18 | 16 | 1 | 4 | 0 | 0 | 70 | 47 | 2 |

Table 8. Weapon type used to harvest black bear in DAU 1B (GMUs 2, 3, 5), 1992-97.

| Year | Rifle | | | Archery | | | Muzzleloader | | Pistol | | | Other | | Total | | |
|------|-------|----|---|---------|---|---|--------------|---|--------|---|---|-------|---|-------|----|---|
| | M | F | U | M | F | U | M | F | M | F | U | M | F | M | F | U |
| 1992 | 64 | 35 | 0 | 8 | 1 | 0 | 0 | 1 | 4 | 3 | 0 | 2 | 1 | 78 | 41 | 0 |
| 1993 | 20 | 28 | 0 | 1 | 2 | 0 | 1 | 0 | 1 | 3 | 0 | 2 | 1 | 25 | 34 | 0 |
| 1994 | 43 | 27 | 0 | 2 | 7 | 0 | 0 | 1 | 3 | 3 | 0 | 1 | 0 | 49 | 38 | 0 |
| 1995 | 48 | 22 | 2 | 9 | 3 | 1 | 3 | 0 | 7 | 1 | 0 | 0 | 1 | 67 | 27 | 3 |
| 1996 | 58 | 34 | 0 | 5 | 5 | 0 | 0 | 1 | 3 | 1 | 0 | 1 | 0 | 67 | 41 | 0 |
| 1997 | 59 | 40 | 2 | 5 | 4 | 0 | 1 | 1 | 1 | 1 | 0 | 4 | 1 | 70 | 47 | 2 |

Table 9. Black bear harvest by season and sex of black bear taken in DAU 1C (GMUs 4, 4A) since 1992.

| Year | Spring | | | Fall | | | Entire Season | | |
|--------|--------|--------|-----------------|------|--------|-----------------|---------------|--------|------------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1992 | 27 | 13 | 41 ^a | 48 | 32 | 83 ^c | 75 | 45 | 124 ^d |
| 1993 | 19 | 8 | 27 | 23 | 15 | 38 | 42 | 23 | 65 |
| 1994 | 30 | 5 | 35 | 24 | 11 | 35 | 54 | 16 | 70 |
| 1995 | 23 | 15 | 38 | 33 | 13 | 46 | 56 | 28 | 84 |
| 1996 | 13 | 4 | 17 | 41 | 27 | 68 | 54 | 31 | 85 |
| Ave. | 22 | 9 | 32 | 34 | 20 | 54 | 56 | 29 | 86 |
| 1997 | 17 | 3 | 20 | 50 | 39 | 90 ^a | 67 | 42 | 110 ^a |
| Change | 77% | 33% | 62% | 147% | 195% | 167% | 120% | 145% | 128 |

^a Total includes one black bear, sex unknown.

^b Total includes two black bears, sex unknown.

^c Total includes three black bears, sex unknown.

^d Total includes four black bears, sex unknown.

Table 10. Method of harvest of black bear taken in DAU 1C (GMUs 4, 4A), 1992-97.

| Year | Bait | | | | | | | | | Hound | | | | | | | | | Still | | | | | | | | | Incidental | | | | | | | | | Unknown | | | | | | | | | Total | | | | | | | | |
|------|------|---|---|----|---|---|----|----|---|-------|----|---|----|----|---|----|----|---|-------|---|---|----|---|---|----|----|---|------------|----|---|----|----|---|----|----|---|---------|--|--|---|--|--|---|--|--|-------|--|--|--|--|--|--|--|--|
| | M | | | F | | | U | | | M | | | F | | | U | | | M | | | F | | | U | | | M | | | F | | | U | | | M | | | F | | | U | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1992 | 11 | 6 | 0 | 8 | 3 | 0 | 39 | 23 | 1 | 13 | 8 | 2 | 4 | 5 | 0 | 75 | 43 | 3 | 11 | 6 | 0 | 8 | 3 | 0 | 39 | 23 | 1 | 13 | 8 | 2 | 4 | 5 | 0 | 75 | 43 | 3 | | | | | | | | | | | | | | | | | | |
| 1993 | 6 | 1 | 0 | 7 | 3 | 0 | 17 | 12 | 0 | 11 | 5 | 0 | 1 | 2 | 0 | 42 | 23 | 0 | 6 | 1 | 0 | 7 | 3 | 0 | 17 | 12 | 0 | 11 | 5 | 0 | 1 | 2 | 0 | 42 | 23 | 0 | | | | | | | | | | | | | | | | | | |
| 1994 | 12 | 3 | 0 | 10 | 2 | 0 | 21 | 6 | 0 | 10 | 2 | 0 | 1 | 3 | 0 | 54 | 16 | 0 | 12 | 3 | 0 | 10 | 2 | 0 | 21 | 6 | 0 | 10 | 2 | 0 | 1 | 3 | 0 | 54 | 16 | 0 | | | | | | | | | | | | | | | | | | |
| 1995 | 2 | 4 | 0 | 7 | 5 | 0 | 14 | 4 | 0 | 16 | 5 | 0 | 17 | 10 | 0 | 56 | 28 | 0 | 2 | 4 | 0 | 7 | 5 | 0 | 14 | 4 | 0 | 16 | 5 | 0 | 17 | 10 | 0 | 56 | 28 | 0 | | | | | | | | | | | | | | | | | | |
| 1996 | 5 | 1 | 0 | 9 | 8 | 0 | 18 | 15 | 0 | 18 | 6 | 0 | 3 | 1 | 0 | 53 | 31 | 0 | 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 | 6 | 3 | 0 | 1 | 2 | 0 | 35 | 19 | 0 | 25 | 16 | 1 | 1 | 2 | 0 | 68 | 42 | 1 | | | | | | | | | | | | | | | | | | |

Table 11. Weapon type used to harvest black bear in DAU 1C (GMUs 4, 4A), 1992-97.

| Year | Rifle | | | Archery | | Muzzleloader | | Pistol | | Unknown | | | Total | | |
|------|-------|----|---|---------|---|--------------|---|--------|---|---------|---|---|-------|----|---|
| | M | F | U | M | F | M | F | M | F | M | F | U | M | F | U |
| 1992 | 65 | 37 | 3 | 6 | 5 | 0 | 1 | 2 | 1 | 2 | 1 | 1 | 75 | 45 | 4 |
| 1993 | 37 | 22 | 0 | 4 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 42 | 23 | 0 |
| 1994 | 48 | 13 | 0 | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 54 | 15 | 0 |
| 1995 | 51 | 23 | 0 | 3 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 56 | 28 | 0 |
| 1996 | 50 | 24 | 0 | 3 | 3 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 54 | 31 | 0 |
| 1997 | 60 | 41 | 1 | 4 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 67 | 42 | 1 |

Table 12. Black bear harvest by season and sex of black bear taken in DAU 1L (GMU 6), since 1992.

| Year | Spring | | | Fall | | | Entire Season | | |
|--------|--------|--------|-----------------|------|--------|-----------------|---------------|--------|-----------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1992 | 11 | 6 | 17 | 26 | 15 | 42 ^a | 37 | 21 | 59 ^a |
| 1993 | 16 | 6 | 23 ^a | 24 | 10 | 34 | 40 | 16 | 57 ^a |
| 1994 | 15 | 5 | 20 | 19 | 11 | 30 | 34 | 16 | 50 |
| 1995 | 18 | 7 | 25 | 28 | 10 | 38 | 46 | 17 | 63 |
| 1996 | 19 | 6 | 25 | 19 | 18 | 37 | 38 | 24 | 62 |
| Ave. | 16 | 6 | 22 | 23 | 13 | 36 | 39 | 19 | 58 |
| 1997 | 14 | 9 | 23 | 30 | 27 | 57 | 44 | 36 | 80 |
| Change | 87% | 150% | 104% | 130% | 208% | 158% | 113% | 189% | 138% |

^a Total includes one black bear, sex unknown.

Table 13. Method of harvest of black bear taken in DAU 1L (GMU 6), 1992-97.

| Year | Bait | | | Hound | | | Still | | | Incidental | | | Unknown | | | Total | | |
|------|------|---|---|-------|---|---|-------|----|---|------------|----|---|---------|---|---|-------|----|---|
| | M | F | U | M | F | U | M | F | U | M | F | U | M | F | U | M | F | U |
| 1992 | 0 | 0 | 0 | 4 | 1 | 0 | 24 | 16 | 1 | 4 | 2 | 0 | 5 | 2 | 0 | 37 | 21 | 1 |
| 1993 | 0 | 0 | 0 | 6 | 1 | 1 | 22 | 12 | 0 | 11 | 3 | 0 | 1 | 0 | 0 | 40 | 16 | 1 |
| 1994 | 1 | 0 | 0 | 8 | 5 | 0 | 14 | 4 | 0 | 9 | 5 | 0 | 1 | 2 | 0 | 33 | 16 | 0 |
| 1995 | 0 | 0 | 0 | 8 | 2 | 0 | 16 | 3 | 0 | 11 | 7 | 0 | 11 | 5 | 0 | 46 | 17 | 0 |
| 1996 | 0 | 0 | 0 | 4 | 6 | 0 | 16 | 10 | 0 | 18 | 8 | 0 | 0 | 0 | 0 | 38 | 24 | 0 |
| 1997 | 0 | 0 | 0 | 9 | 2 | 0 | 20 | 17 | 0 | 13 | 14 | 0 | 2 | 3 | 0 | 44 | 36 | 0 |

Table 14. Weapon type used to harvest black bear in DAU 1L (GMU 6), 1992-97.

| Year | Rifle | | | Archery | | | Muzzleloader | | Pistol | | Other | | Total | | |
|------|-------|----|---|---------|---|---|--------------|---|--------|---|-------|---|-------|----|---|
| | M | F | U | M | F | U | M | F | M | F | M | F | M | F | U |
| 1992 | 34 | 18 | 0 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 37 | 21 | 1 |
| 1993 | 37 | 15 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 40 | 16 | 1 |
| 1994 | 30 | 13 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 34 | 15 | 0 |
| 1995 | 42 | 14 | 0 | 2 | 1 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 46 | 17 | 0 |
| 1996 | 37 | 22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 38 | 24 | 0 |
| 1997 | 39 | 35 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 44 | 36 | 0 |

Table 15. Black bear harvest by season and sex of black bear taken in DAU 2B (GMUs 7, 9) since 1992.

| Year | Spring | | | Fall | | | Entire Season | | |
|--------|--------|--------|-----------------|------|--------|-------|---------------|--------|-----------------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1992 | 30 | 7 | 37 | 11 | 8 | 19 | 41 | 15 | 56 |
| 1993 | 31 | 8 | 40 ^a | 5 | 2 | 7 | 36 | 10 | 47 ^a |
| 1994 | 16 | 9 | 25 | 6 | 6 | 12 | 22 | 15 | 37 |
| 1995 | 17 | 8 | 25 | 12 | 2 | 14 | 29 | 10 | 39 |
| 1996 | 41 | 6 | 47 | 4 | 6 | 10 | 45 | 12 | 57 |
| Ave. | 27 | 8 | 35 | 8 | 5 | 12 | 35 | 12 | 47 |
| 1997 | 25 | 5 | 30 | 8 | 6 | 14 | 33 | 11 | 44 |
| Change | 93% | 62% | 86% | 100% | 120% | 117% | 94% | 92% | 94% |

^a Total includes one black bear, sex unknown.

Table 16. Method of harvest of black bear taken in DAU 2B (GMUs 7, 9), 1992-97.

| Year | Bait | | | Hound | | | Still | | | Incidental | | | Unknown | | | Total | | |
|------|------|---|---|-------|---|---|-------|---|---|------------|---|---|---------|---|---|-------|----|---|
| | M | F | U | M | F | U | M | F | U | M | F | U | M | F | U | M | F | U |
| 1992 | 22 | 2 | 0 | 2 | 0 | 0 | 12 | 9 | 0 | 4 | 3 | 0 | 1 | 1 | 0 | 41 | 15 | 0 |
| 1993 | 15 | 3 | 0 | 3 | 0 | 0 | 6 | 3 | 1 | 10 | 4 | 0 | 2 | 0 | 0 | 36 | 10 | 1 |
| 1994 | 9 | 3 | 0 | 0 | 0 | 0 | 11 | 8 | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 22 | 15 | 0 |
| 1995 | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 2 | 0 | 9 | 2 | 0 | 15 | 6 | 0 | 29 | 10 | 0 |
| 1996 | 26 | 3 | 0 | 2 | 0 | 0 | 8 | 5 | 0 | 8 | 4 | 0 | 1 | 0 | 0 | 45 | 12 | 0 |
| 1997 | 15 | 4 | 1 | 3 | 0 | 0 | 5 | 1 | 0 | 8 | 4 | 0 | 2 | 2 | 0 | 33 | 11 | 0 |

Table 17. Weapon type used to harvest black bear in DAU 2B (GMUs 7, 9), 1992-97.

| Year | Rifle | | | Archery | | Muzzleloader | | Pistol | | Unknown | | Total | | |
|------|-------|----|---|---------|---|--------------|---|--------|---|---------|---|-------|----|---|
| | M | F | U | M | F | M | F | M | F | M | F | M | F | U |
| 1992 | 34 | 13 | 0 | 5 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 41 | 15 | 0 |
| 1993 | 32 | 9 | 1 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 36 | 10 | 1 |
| 1994 | 21 | 13 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 15 | 0 |
| 1995 | 24 | 8 | 0 | 4 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 29 | 11 | 0 |
| 1996 | 37 | 12 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 12 | 0 |
| 1997 | 27 | 10 | 1 | 5 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 33 | 11 | 0 |

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE: Idaho **JOB TITLE:** Black Bear Surveys and Inventories
PROJECT: W-170-R-22
SUBPROJECT: 2 **STUDY NAME:** Big Game Population Status, Trends,
Utilization and Associated Habitat
STUDY: I Studies
JOB: 9
PERIOD COVERED: July 1, 1997 to June 30, 1998

BLACK BEAR - CLEARWATER REGION

ABSTRACT

Reported harvest during 1997 for the Clearwater Region was 437 bears, a 3% decrease from 1996. The 1990-92 average harvest was 466. Until 1993, harvest had increased nearly every year. The 3-year average from 1994-1996 was 374 bears, an 18% reduction in harvest, likely a result of the change in season regulations. However, harvest in 1996 and 1997 indicates a return to levels incurred prior to 1993 and the new regulations. Total harvest by DAU in 1997 was 1D-122, 1E-66, 1F-83, 2A-120, and 3A-46.

The 1992-2000 Black Bear Management Plan values for the median age criteria were not met fully for any DAU during 1997. However, the percent female criteria were adequate in all DAUs except 1D. Since the regulation change, much of the harvest effort has changed from spring to fall. Management implications indicate a need for continued monitoring, but that some DAUs have skewed values due to transfer of harvest from spring to fall. All values have to be reviewed in perspective of harvest trends, scent station surveys, and known hunting effort based on road densities, amount of DAUs accessed, and new hunting patterns resulting from regulation changes.

AREA 1

DAU 1D (GMUs 8A, 10A)

ABSTRACT

DAU 1D historically has been one of the most overharvested DAUs in the region. Overharvest criteria were exceeded in 4 of the 4 variables in 1992. In 1993, seasons were changed to reduce the harvest of bears in this DAU. The regulation changes apparently were successful in reducing harvest by an average of 16% over the following 3 years. However, during 1996, harvest rebounded to 108, and increased again in 1997 to 122, which was about the same as prior to the regulation change. When analyzed by season and method, most harvest during 1997 occurred in

the fall (79%), by incidental hunters (53%). During 1992, most harvest occurred during the spring season (66%) by bait hunters (44%). High road densities have allowed hunters to access most of the available bear habitat.

MANAGEMENT DIRECTION

DAU 1D has historically received intensive bear harvest. Due to apparent high fall harvest by incidental hunters, management criteria will not likely be met. Direction for DAU 1D is to monitor harvest data to determine if changes in harvest structure reflect a negative trend in the population, or just a change in age of bears being shot by hunters as a result of fall harvest. The population will be stabilized through regulation changes if necessary.

BACKGROUND

Historically, season lengths in DAU 1D have been relatively long, becoming more restrictive in recent years. The 1992 season length was 107 days with a 2-week pursuit season. The season length under the 1992-2000 Black Bear Management Plan has been reduced to 62 days, with a 77-day pursuit season. The fall season was extended in 1977 to a total season length of 78 days (Table 1). Bear baiting is not allowed.

These units are characterized by mixed land ownership and high road densities on U.S. Forest Service, Idaho Department of Lands, timber company, and small private ownerships. Although the habitat provides high quality forage, easy hunter access has led to overharvest problems from direct mortality as a result of intensive hunting pressure.

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

POPULATION SURVEYS

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

HARVEST CHARACTERISTICS

One hundred twenty-three bears were harvested in DAU-1D during 1997, an increase of 37% from the previous 3-year average (Table 3). About 38% of the bears were females. Most bears (79%) were harvested during the fall season. This is consistent with 1993-96, but a reversal from 1990-92 when spring harvest predominated. In 1992, age distribution for harvested animals was skewed to younger bears and overharvest criteria were exceeded in 4 of the 4 categories, the most critical being percent females and median age of females (Tables 3 and 4). Age characteristics of

harvest for 1994-96 indicated that all criteria were again exceeded (Table 5). The 1997 age data criteria were not met again.

The single method of harvest most preferred by hunters in 1997 was incidental hunting, accounting for 50% of the harvest, followed by hound (38%), still (12%), and baiting (0%) (Table 6). This was a reversal from 1990-92, when baiting was the most common method used, accounting for 37% of the harvest. Weapon type used most frequently was rifle (93%), followed by pistol (4%) and archery (3%). During the 1990-92 period, archery comprised 17% of the harvest. During 1993-97, archery comprised only 3% of the harvest, probably a result of baiting restrictions (Table 7).

DEPREDACTIONS

Five black bear depredations occurred in DAU 1D in 1997, increasing from 1 complaint in 1996 (Table 8).

DOG TRAINING SEASONS

An 11-week dog training season from 16 May - 31 July was allowed in DAU 1D during 1997.

MANAGEMENT IMPLICATIONS

According to management criteria, bears were overharvested in DAU 1D. Under the guidance of the 1992-2000 Black Bear Management Plan, black bear harvest in 1D was reduced by 31% for a 3-year period until last year when harvest rebounded to preregulation change levels.

The 1992 bear regulations promoted reduced bear harvest by eliminating bear baiting, which accounted for 45% of the harvest, and reduced the season length by 45 days. Harvest results showed season changes were successful in reducing black bear harvest from the level prior to 1992. However, harvest criteria still have not been met. This could be indicative of increased numbers of subadult dispersers dominating the harvest. More time will be necessary to determine if the harvest is indicative of the population size and demographics. The 1995-97 records indicated that harvest is shifting to fall season, thereby increasing harvest by incidental hunters, and maintaining a younger age structure in the harvest.

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

ABSTRACT

Hunters in DAU 1E harvested 66 bears during 1997; 23% were females. Sixty-eight percent of black bears harvested were killed in the fall, 48% of which were killed incidental to other activities.

MANAGEMENT DIRECTION

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

BACKGROUND

DAU 1E lies mostly along the western side of the Clearwater Region and is predominantly private land. Difficult access and fragmented bear habitat through most of the DAU have kept overall harvest somewhat concentrated. Agricultural use, and sheep and cattle allotments are plentiful and characterize this DAU. Timbered habitat is clumped and interspersed with expansive grasslands along the Salmon, Snake, and lower Clearwater River breaks.

The climate in this DAU ranges from hot and arid along the river breaks, to cooler and moist in areas receiving more rainfall and snow at higher elevations. Recent wet weather may have improved habitat quality. The 1997 season length was 78 days, a reduction of 29 days from 1992. Dog-training season was 77 days (Table 1).

POPULATION SURVEYS

Bait station surveys were conducted between 9-14 July 1997 in Unit 11. Unit 11 was chosen because of representative habitat and the availability of personnel to assist. Ten transects were sampled along available roads, 6 of which were closed to public access. Sixteen percent of the 50 available stations were visited by bears, compared to 6.0% in 1996 (Table 2).

HARVEST CHARACTERISTICS

Sixty-six bears were harvested in DAU 1E during 1997, the highest harvest recorded in the last decade; 68% were taken in the fall (Table 9). Median age criteria for 1997 were below objectives in 3 of 4 categories; however, the percent females harvested was only 23% (Tables 10 and 11). The most effective methods of harvest were incidental and hound hunting, and accounted for 47% and 24% of the harvest, while still hunting and harvest with the use of dogs accounted for 18% and 11% respectively of the harvest in 1997 (Table 12). The weapon type most frequently used was rifle which accounted for 94% of the harvest, followed by archery (4.5%) and pistol (1.5%) (Table 13).

DEPREDATIONS

Most of the land in this DAU was private, and 10 depredation complaints were recorded in 1997. This was up from most recent years when complaints averaged 1 or 2 per year, with 5 occurring during 1995, and 7 in 1996.

DOG TRAINING SEASONS

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

MANAGEMENT IMPLICATIONS

Much of the land in GMUs 8, 11, 11A, and 13 is either agricultural or river breaks and bear habitats are isolated. Consequently, most harvest occurs along major road corridors at higher elevations. Many of the young bears harvested are probably dispersing to new territories, with adult bears using better quality habitats away from the roads. Populations will probably not increase rapidly under the new season structure due to relatively low quality habitat occupying most of this DAU. Also, it is likely that without much greater access, harvest will continue to reflect young dispersers. That only 23% of the harvest is female may indicate that the productive elements of the population (females) are selecting more isolated areas, thus reducing the likelihood of mortality. The majority of bears in any cohort being harvested in this DAU historically are 1- and 2-year-old dispersing males.

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

ABSTRACT

Hunters in DAU 1F harvested 83 bears during 1997, a 52% increase from 1994-96 average. More bears are killed now in this DAU than prior to the regulation changes in 1992. Most bears (64%) were harvested during the fall, a change from 1990-92 seasons when spring harvest predominated accounting for 57% of the harvest. The most frequent harvest methods were incidental (28%) and by use of hounds (24%) while using a rifle (95%) or bow (4%).

MANAGEMENT DIRECTION

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

BACKGROUND

Under the 1992-2000 Black Bear Management Plan, the units and their seasons in DAU 1F were different from previous years. Season length during the last 5-year planning period in DAU 1F for Units 15 and 16 was 152 days long with a 1-month pursuit season. Units 14 and 18 had a season length of 107 days. Under the new plan, these units were combined into one DAU and the take season shortened to 62 days, with a dog-training season of 77 days (Table 1). During 1997, the fall season was extended, lengthening the season to 78 days.

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

POPULATION SURVEYS

Bait station surveys were conducted during 1997 for the elk productivity research study. Both sardines and tetracycline baits were placed. Data were analyzed for trails and open and closed roads. In general, trails and closed roads received more hits than did open roads. Seventy-three transects were surveyed but only 15 of the 365 sites were visited by bears, resulting in a 4.1% visitation rate (Table 2).

HARVEST CHARACTERISTICS

Eighty-three bears were harvested in DAU 1F during 1997, 64% during the fall, which is a reversal of 1990-92 seasons when 57% of the harvest occurred during spring (Table 14). Females comprised 33% of the harvest in DAU 1F. Management objectives were not met in 3 of the 4 criteria in 1997, and have not been met any year under the new season structure (Tables 15 & 16). The most frequent methods of harvest were incidental (28%), followed by the use of hounds (24%), and baiting (24%) and still hunting (24%) (Table 17). Rifle was the most frequent (95%) weapon type (Table 18).

DEPREDACTIONS

Two depredation complaints were recorded for this DAU during 1997, down considerably over previous years.

DOG TRAINING

Dog-training season ran from May 16 through July 31, 1997 in DAU 1F (Table 1).

MANAGEMENT IMPLICATIONS

DAU 1F receives intensive hound hunting activity because of its proximity to population centers and easy road access. Most of the DAU is on National Forest lands with high road densities. Although bear harvest criteria indicate overharvest levels, the high quality bear habitat in this DAU should allow bear populations to reach 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 1997, harvest increased 52% over the previous 3-year average, increasing above levels that occurred prior to the regulation changes. The difference in harvest has been the shift from spring to fall harvest, and the continuing increase in incidental take.

AREA 2

DAU 2A (GMUs 10, 12)

ABSTRACT

During 1997, 120 bears were harvested in DAU 2A, about the same as the previous 3-year average. Of these, only 24% were females. Three of the 4 age criteria were not met. Seventy-five percent were harvested during the spring season. Bait hunting accounted for 54% of the harvest. Rifle harvest accounted for 74% and archery 21%.

MANAGEMENT DIRECTION

The 1992-2000 Black Bear Management Plan recognizes DAU 2A as having productive habitat able to maintain high levels of harvest. DAU 2A may serve as a reservoir of black bears to surrounding units receiving higher harvest pressures (e.g., GMU 10A). Harvest occurs mainly on major road and river corridors in DAU 2A, probably accounting for reduced age structure in the harvest data. Take seasons last 124 days, reduced 31 days from 1992, with a 46-day dog-training season (Table 1). The Department will continue to monitor harvest data on a 3-year average and conduct bait station surveys to obtain data to manage for a healthy population structure and harvest of bears. Additionally, tetracycline baits will allow calculation of a population estimate for this DAU over time.

BACKGROUND

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

POPULATION SURVEYS

Intensive bait station surveys were conducted during 1997 as part of the elk productivity research study. Due to record snows during the winter and spring of 1996-1997, many roads were washed out and some transects were not accessible. However, the extensive efforts included use of tetracycline baits for determining population size, and much more intensive overall efforts were conducted during 1997 (Table 2). Forty-eight transects and 237 sites were sampled, with a visitation rate of 8.9%. In general, the sites on closed roads and trails received higher visitation rates than those on open roads.

HARVEST CHARACTERISTICS

During 1997, 120 bears were harvested in DAU 2A, an increase of 4% over the previous 3-year average. Seventy-five percent of these bears were harvested during spring (Table 19). Only 24% of the bears harvested were females. The low number of females harvested may be representative of a stable and probably healthy population in this DAU. Age data criteria were not met in 3 of the 3 categories, and provided the lowest age structure of any previous year (Tables 20 and 21).

Hunting over bait accounted for 54% of the harvest in DAU 2A, followed by still (20%), incidental (20%), and hounds (20%) (Table 22). Rifle was the most common weapon used (74%), then bow (21%) (Table 23).

DEPREDACTIONS

Two depredation complaints were recorded during 1997, which is consistent with past years for DAU 2A.

DOG TRAINING SEASONS

A 1.5-month dog-training season occurred during 1997 from 16 June through 31 July.

MANAGEMENT IMPLICATIONS

DAU 2A receives moderate hunting pressure because of its roaded habitats, public land, and healthy bear populations. Harvest is high in the male component, with a median age of 3 years in 1997. The adult female segment remains secure in the unroaded segments of the DAU.

DAU 2A has a high potential for increasing bear numbers with the decrease in season length under the new management plan. Harvest reduced dramatically over the first 3 years of the regulation change, but increased during 1996 and 1997 to that level occurring prior to the season changes.

Method of take changed as well. Baiting accounted for 54% of the harvest, up 23% from the previous 3-year average, a possible result from a shift of bait hunters from DAU 1D, where

baiting was eliminated. Most of the harvest in this DAU occurs in the spring, the opposite of the other DAUs in the region. The record deep snows that remained until late in the spring prevented access to much of the DAU during the spring season, thus resulting in a decreased harvest from the previous year.

AREA 3

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

ABSTRACT

During 1997, 46 bears were reported harvested in DAU 3A, about 25% less than the previous 3-year average. Of these, 28% were females. This is the only DAU in the region where most of the management criteria objectives are regularly met, suggesting a lightly hunted population. About half of the bears were harvested during fall. Most bears were harvested either by still or incidental hunting. Heavy winter and late spring probably resulted in reduced harvest in this DAU during 1997.

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 current harvest levels and distribution, although adjustments will be implemented to conform to statewide management direction.

BACKGROUND

Seasons have historically been 152 days long in DAU 3A but were reduced to 94 days beginning in 1993, then increased to 109 days in 1996 (Table 1). Dog-training seasons have not been allowed, primarily because of the inability of hound hunters to effectively monitor their hounds in wilderness areas.

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

POPULATION SURVEYS

Bear bait station surveys were not conducted in DAU 3A in 1997. Due to the record snow levels during the winter and spring, as well as lingering snow in higher elevations, many transects were

inaccessible. Also, due to intensive survey efforts in other units as part of the elk productivity study, personnel were not available to participate.

HARVEST CHARACTERISTICS

During 1997, 46 bears were reported harvested in DAU 3A (Table 24). Of these, 28% were females. Fifty-two percent of the bears were harvested during fall. All harvest criteria were met during 1995, but only 2 of the 4 were met the following 2 years (Tables 25 and 26). Fifty-six percent of the harvest was by still hunters, 33% by incidental hunters, 6% by bait, and 2% by hound hunters (Tables 27). Ninety-six percent of the bears were harvested using a rifle (Table 28).

The black bear population in DAU 3A appeared to meet or exceed desired levels in 1995, but has changed slightly since then, with a small proportion of the overall population being harvested. Age structures and harvest criteria indicated this population was in the best condition of any DAU in the region. Because harvest switched from spring still hunting to fall incidental during 1996, it is likely an age structure shift downward occurred as a result.

DEPREDATIONS

One depredation occurred in this DAU during 1997, about the same as prior years.

DOG TRAINING SEASON

No dog-training season occurred in DAU 3A during 1997. Hound hunting for bears was not popular in this DAU due to lack of roads and high probability of losing hounds.

MANAGEMENT IMPLICATIONS

Bear populations are within desired levels in this DAU. Because of the adequate habitat within this DAU, and light hunting pressure, the season structure proposed in the 1992-2000 Bear Management Plan should have little impact on the population.

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

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

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

^b Bait prohibited

Table 2. Bait station survey results for the Clearwater Region, DAUs 1D, 1E, 1F, 2A and 3A, 1993-97.

| Year | Survey Number | Survey Dates | Total Trans. Avail. | Total Trans. Sampled | Total Stations Sampled | Total Stations Visited By Bear | 90% Confidence Interval % (+/-) |
|-------------------|-------------------|--------------|---------------------|----------------------|------------------------|--------------------------------|---------------------------------|
| 1993 ^a | 10A ^b | 6/21-6/26 | 15 | 15 | 75 | 5 | 6.7 4.7 |
| | 11 ^c | 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 4.5 |
| | 19, 20 | 6/16-6/23 | 12 | 8 | 40 | 0 | 0.0 - |
| TOTAL | | | 71 | 66 | 328 | 15 | 4.6 1.9 |
| 1994 | 10A ^{bc} | 6/10-6/16 | 15 | 15 | 75 | 6 | 8.0 5.1 |
| | 11 | 6/9-6/15 | 10 | 10 | 50 | 1 | 2.0 3.2 |
| | 12 | 6/13-6/18 | 17 | 17 | 85 | 2 | 2.4 2.7 |
| | 15, 16 | 6/10-6/15 | 13 | 13 | 65 | 8 | 12.3 6.7 |
| | 19, 20 | 6/9-6/16 | 12 | 7 | 35 | 2 | 5.7 6.4 |
| TOTAL | | | 67 | 62 | 310 | 19 | 6.1 2.2 |
| 1995 | 10/12 | 6/24-7/9 | 102 | 80 | 400 | 26 | 6.5 2.0 |
| | 11 | 6/24-7/9 | 10 | 10 | 50 | 2 | 4.0 4.5 |
| TOTAL | | | 112 | 90 | 450 | 28 | 6.2 1.9 |
| 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 | 16 | 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 | | 48 | 48 | 237 | 21 | 8.9 3.0 |
| | 15, 16 | | 73 | 73 | 365 | 15 | 4.1 1.7 |
| TOTAL | | | 131 | 131 | 652 | 44 | 6.7 1.6 |

^a First year of data, no comparisons.

^b Potlatch Corporation purchased sardines and placed transects.

^c Transects collected at 6 days.

Table 3. Black bear harvest by season and sex of bear taken in DAU 1D^a, 1990-97.

| Year | Spring | | | Fall | | | Entire Season | | |
|--------------------|--------|--------|-------|-------|--------|-------|---------------|--------|-------|
| | 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 |
| 1994-96 Average | 17 | 12 | 29 | 34 | 26 | 60 | 51 | 38 | 89 |
| 1997 | 15 | 10 | 25 | 61 | 36 | 97 | 77 | 46 | 122 |
| Difference (%) | -11.8 | -16.7 | -13.8 | +79.0 | +38.0 | +61.7 | +51.0 | +21.0 | +37.0 |

^a Game Management Units 8A and 10A.

Table 4. Age distribution of black bear checked from DAU 1D^a, 1990-97.

| Age | 1990 | | 1991 | | 1992 | | 1993 | | 1994 | | 1995 | | 1996 | | 1997 | |
|-------|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|
| | 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 | 7 | 3 | 11 | 2 | 14 | 7 | 9 | 6 | 10 | 2 | 17 | 8 | 17 | 2 | 19 | 10 |
| 2 | 17 | 9 | 14 | 7 | 15 | 7 | 8 | 3 | 9 | 7 | 7 | 4 | 11 | 18 | 18 | 6 |
| 3 | 7 | 5 | 13 | 9 | 11 | 4 | 11 | 10 | 7 | 3 | 10 | 6 | 10 | 5 | 19 | 8 |
| 4 | 6 | 3 | 5 | 3 | 13 | 10 | 4 | 1 | 5 | 4 | 4 | 0 | 7 | 7 | 4 | 0 |
| 5 | 6 | 4 | 4 | 2 | 2 | 5 | 0 | 1 | 2 | 3 | 0 | 4 | 7 | 1 | 6 | 8 |
| 6 | 2 | 2 | 3 | 1 | 2 | 3 | 1 | 3 | 3 | 1 | 3 | 3 | 3 | 1 | 2 | 1 |
| 7 | 2 | 2 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 5 | 1 | 1 | 4 |
| 8 | 3 | 1 | 0 | 2 | 4 | 3 | 1 | 2 | 0 | 2 | 0 | 1 | 1 | 3 | 1 | 1 |
| 9 | 0 | 1 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 1 | 1 | 1 |
| 10+ | 0 | 9 | 1 | 13 | 6 | 8 | 5 | 3 | 3 | 2 | 4 | 6 | 1 | 2 | 0 | 5 |
| Total | 50 | 39 | 52 | 40 | 72 | 48 | 41 | 29 | 39 | 28 | 47 | 34 | 67 | 43 | 75 | 45 |

^a Game Management Units 8A and 10A.

Table 5. Values of the 1992-2000 management plan criteria for DAU 1D, 1990-97.

| Year | N ^a | % Females | Median Age ^b | | |
|---------------------|----------------|-----------|-------------------------|---------|-------|
| | | | Males | Females | Total |
| 1990 | 96 | *44 | 3 | 4 | 3 |
| 1991 | 98 | *44 | 3 | 4 | 3 |
| 1992 | 122 | *39 | *3 | *4 | *3 |
| 1993 | 74 | *41 | *3 | *3 | *3 |
| 1994 | 76 | *42 | *3 | *3 | *3 |
| 1995 | 84 | *43 | *2 | *3 | *3 |
| 1996 | 110 | *39 | *3 | *2 | *3 |
| 1997 | 122 | *38 | *2 | *3 | *3 |
| (Desired Levels) | | ≤35% | ≥4 | ≥6 | ≥5 |

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

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

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

Table 6. Method of harvest of black bear taken in DAU 1D, 1990-97.^a

| Year | Bait | Hound | Still | Incidental | Other | Total |
|------|------|-------|-------|------------|-------|-------|
| 1990 | 24 | 29 | 18 | 23 | 3 | 94 |
| 1991 | 38 | 16 | 11 | 30 | 1 | 96 |
| 1992 | 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 |

^a Units 8A and 10A

Table 7. Weapon type used to harvest black bear in DAU 1D 1990-97.^a

| Year | Rifle | Archery | Muzzleloader | Pistol | Other | Total |
|------|-------|---------|--------------|--------|-------|-------|
| 1990 | 76 | 13 | 0 | 7 | 1 | 97 |
| 1991 | 67 | 24 | 2 | 4 | 1 | 98 |
| 1992 | 95 | 17 | 1 | 3 | 6 | 122 |
| 1993 | 66 | 4 | 1 | 3 | 0 | 74 |
| 1994 | 61 | 9 | 0 | 3 | 3 | 76 |
| 1995 | 78 | 2 | 0 | 4 | 0 | 84 |
| 1996 | 101 | 3 | 0 | 2 | 0 | 106 |
| 1997 | 113 | 4 | 0 | 5 | 0 | 122 |

^a Units 8A and 10A

Table 8. Black bear depredation complaints handled in the Clearwater Region, calendar year 1990-97.

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

Table 9. Black bear harvest by season and sex of bear taken in DAU 1E^a, 1990-97.

| 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 |
| 1994-96 Average | 12.3 | 9.3 | 22.3 | 23.0 | 14.6 | 37.7 | 38.6 | 21.3 | 60.0 |
| 1997 | 19 | 2 | 21 | 32 | 13 | 45 | 51 | 15 | 66 |
| Diff. (%) | +54.5 | -78.5 | -5.8 | +39.0 | -11.0 | +19.4 | +32.1 | -29.6 | +10.0 |

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

Table 10. Age distribution of black bear checked from DAU 1E^a, 1990-97.

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

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

Table 11. Values of the 1992-2000 management plan criteria for DAU 1E, 1990-97.

| Year | N ^a | % Females | Median Age b | | |
|---------------------|----------------|-----------|--------------|---------|-------|
| | | | Males | Females | Total |
| 1990 | 57 | 33 | 2 | 3 | 2 |
| 1991 | 54 | 33 | 2 | 4 | 2 |
| 1992 | 48 | 35 | *3 | *2 | *2 |
| 1993 | 36 | *40 | *3 | 7 | *4 |
| 1994 | 56 | *41 | *3 | *3 | *3 |
| 1995 | 58 | 29 | *3 | *3 | *3 |
| 1996 | 61 | *49 | *2 | *3 | *2 |
| 1997 | 66 | 23 | *2 | *2 | *2 |
| (Desired Levels) | | ≤35 | ≥4 | ≥6 | ≥5 |

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

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

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

Table 12. Method of harvest of black bear taken in DAU 1E^a, 1990-97.^a

| Year | Bait | Hound | Still | Incidental | Other | Total |
|------|------|-------|-------|------------|-------|-------|
| 1990 | 13 | 10 | 9 | 22 | 1 | 55 |
| 1991 | 17 | 7 | 12 | 20 | 1 | 57 |
| 1992 | 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 |

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

Table 13. Weapon type used to harvest black bear in DAU 1E 1990-97^a.

| Year | Rifle | Archery | Muzzleloader | Pistol | Other/Unk | 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 |

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

Table 14. Black bear harvest by season and sex of bear taken in DAU 1F^a, 1990-97.

| 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 |
| 1994-96 | 10.3 | 5.7 | 16.0 | 28.0 | 10.7 | 38.7 | 38.3 | 16.3 | 54.7 |
| 1997 | 27 | 3 | 30 | 37 | 16 | 53 | 64 | 19 | 83 |
| Difference (%) | +162 | -47 | +87 | +32 | +49 | +37 | +67 | +16 | +52 |

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

Table 15. Age distribution of black bear checked from DAU 1F^a, 1990-97.

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

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

Table 16. Values of the 1992-2000 management plan criteria for DAU 1F, 1990-97.

| Year | N ^a | % Females | Median Age ^b | | |
|---------------------|----------------|-----------|-------------------------|---------|-------|
| | | | Males | Females | Total |
| 1990 | 54 | 37 | 4 | 5 | 4 |
| 1991 | 75 | 36 | 3 | 5 | 3 |
| 1992 | 65 | *37 | 4 | 3 | 3 |
| 1993 | 45 | *38 | *2 | 9 | *3 |
| 1994 | 38 | *37 | *2 | *5 | *3 |
| 1995 | 46 | 26 | *3 | *3 | *3 |
| 1996 | 80 | 29 | *3 | *3 | *3 |
| 1997 | 83 | 23 | *3 | *3 | *3 |
| (Desired Levels) | | ≤35 | ≥4 | ≥6 | ≥5 |

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

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

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

Table 17. Method of harvest of black bear taken in DAU 1F, 1990-97^a.

| Year | Bait | Hound | Still | Incidental | Other | Total |
|------|------|-------|-------|------------|-------|-------|
| 1990 | 10 | 17 | 16 | 9 | 0 | 52 |
| 1991 | 22 | 18 | 23 | 9 | 1 | 73 |
| 1992 | 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 |

^a Units 14, 15, 16, and 18

Table 18. Weapon type used to harvest black bear in DAU 1F, 1990-97^a.

| 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 |

^a Units 14, 15, 16, and 18

Table 19. Black bear harvest by season and sex of bear taken in DAU 2A^a, 1990-97.

| Year | Spring | | | Fall | | | Entire Season | | |
|--------------------|--------|--------|-------|-------|--------|-------|---------------|--------|-------|
| | 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 |
| 1994-96 Average | 66.7 | 23.0 | 89.7 | 18.0 | 8.0 | 26.0 | 84.7 | 31.0 | 115.7 |
| 1997 | 68 | 22 | 90 | 23 | 7 | 30 | 91 | 29 | 120 |
| Difference (%) | +2.5 | -4.3 | 0.0 | +27.0 | -12.5 | +13.3 | +7.4 | -6.4 | +3.7 |

^a Game Management Units 10 and 12.

Table 20. Age distribution of black bear checked from DAU 2A^a, 1990-97.

| Age | 1990 | | 1991 | | 1992 | | 1993 | | 1994 | | 1995 | | 1996 | | 1997 | |
|-------|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|
| | 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 |
| 1 | 11 | 2 | 6 | 4 | 7 | 3 | 5 | 1 | 7 | 1 | 2 | 1 | 7 | 2 | 4 | 2 |
| 2 | 40 | 11 | 20 | 7 | 26 | 6 | 3 | 6 | 11 | 6 | 6 | 3 | 22 | 7 | 15 | 5 |
| 3 | 7 | 3 | 30 | 5 | 17 | 5 | 13 | 7 | 10 | 4 | 23 | 10 | 12 | 3 | 32 | 7 |
| 4 | 10 | 4 | 14 | 9 | 20 | 2 | 8 | 5 | 12 | 4 | 10 | 3 | 20 | 2 | 7 | 0 |
| 5 | 14 | 9 | 13 | 2 | 9 | 3 | 9 | 8 | 9 | 3 | 7 | 6 | 13 | 4 | 6 | 1 |
| 6 | 10 | 2 | 4 | 3 | 8 | 3 | 3 | 2 | 8 | 2 | 5 | 1 | 6 | 3 | 3 | 1 |
| 7 | 7 | 8 | 5 | 1 | 4 | 2 | 5 | 1 | 1 | 1 | 5 | 2 | 5 | 3 | 5 | 1 |
| 8 | 1 | 4 | 6 | 2 | 1 | 0 | 3 | 2 | 3 | 0 | 4 | 2 | 10 | 0 | 3 | 2 |
| 9 | 2 | 1 | 2 | 3 | 0 | 0 | 4 | 1 | 3 | 0 | 1 | 0 | 1 | 2 | 4 | 3 |
| 10+ | 12 | 11 | 11 | 15 | 9 | 1 | 5 | 13 | 4 | 5 | 7 | 3 | 7 | 4 | 7 | 6 |
| Total | 114 | 55 | 111 | 58 | 101 | 25 | 58 | 46 | 68 | 23 | 70 | 32 | 105 | 30 | 91 | 29 |

^a Game Management Units 10 and 12.

Table 21. Values of the 1992-2000 management plan criteria for DAU 2A, 1990-97.

| Year | N ^a | % Females | Median Age ^b | | |
|-------------------|----------------|-----------|-------------------------|---------|-------|
| | | | Males | Females | Total |
| 1990 | 194 | 36 | 3 | 5 | 4 |
| 1991 | 178 | 33 | 3 | 4 | 4 |
| 1992 | 130 | 22 | 4 | *3 | *3 |
| 1993 ^b | 108 | 35 | 4 | *5 | 5 |
| 1994 | 98 | 29 | 4 | *4 | *4 |
| 1995 | 108 | 31 | 4 | *4 | *4 |
| 1996 | 135 | 22 | 4 | *5 | *4 |
| 1997 | 120 | 24 | *3 | *3 | *3 |
| (Desired Levels) | | ≤35 | ≥4 | ≥6 | ≥5 |

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

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

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

Table 22. Method of harvest of black bear taken in DAU 2A,^a 1990-97.

| 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 |

^a Units 10 and 12

Table 23. Weapon type used to harvest black bear in DAU 2A,^a 1990-97.

| 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 |

^a Units 10 and 12

Table 24. Black bear harvest by season and sex of bear taken in DAU 3A^a, 1990-97.

| 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 |
| 1994-96 Average | 25.7 | 6.7 | 32.3 | 18.7 | 10.3 | 29.0 | 44.3 | 17.0 | 61.3 |
| 1997 | 17 | 5 | 22 | 17 | 7 | 24 | 34 | 12 | 46 |
| Difference (%) | -33.0 | -25.4 | -31.9 | -9.0 | -32.0 | 17.2 | 23.3 | -29.4 | -25.0 |

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

Table 25. Age distribution of black bear checked from DAU 3A^a, 1990-97.

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

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

Table 26. Values of the 1992-2000 management plan criteria for DAU 3A, 1990-97.

| Year | N ^a | % Females | Median Age | | |
|------------------|----------------|-----------|------------|---------|-------|
| | | | Males | Females | Total |
| 1990 | 75 | 32 | 4 | *5 | *4 |
| 1991 | 74 | 35 | 4 | *5 | 5 |
| 1992 | 81 | 28 | 4 | *5 | *4 |
| 1993 | 67 | 36 | 4 | *5 | *4 |
| 1994 | 52 | 27 | 5 | *5 | 5 |
| 1995 | 64 | 27 | 4 | 8 | 5 |
| 1996 | 68 | 29 | *3 | 7 | *3 |
| 1997 | 46 | 26 | 4 | *3 | *4 |
| (Desired Levels) | | ≤35 | ≥4 | ≥6 | ≥5 |

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

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

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

Table 27. Method of harvest of black bear taken in DAU 3A^a, 1990-97.

| 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 |

^a Units 16A, 17, 19 and 20

Table 28. Weapon type used to harvest black bear in DAU 3A^a 1990-97.

| 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 |

^a Units 16A, 17, 19 and 20

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE: Idaho **JOB TITLE:** Black Bear Surveys and Inventories
PROJECT: W-170-R-22
SUBPROJECT: 3 **STUDY NAME:** Big Game Population Status, Trends,
Utilization and Associated Habitat
Studies
STUDY: I
JOB: 9
PERIOD COVERED: July 1, 1997 to June 30, 1998

BLACK BEAR - SOUTHWEST REGION

ABSTRACT

Area 1: Two hundred eighty-five black bear were reported harvested in Area 1 of the Southwest Region in 1997. Bait station survey results were similar to previous years in DAU 1H in 1998. Reported harvest was 102, 52, and 131 black bears for DAUs 1G, 1H, and 1K, respectively. The reported harvest decreased 11% in DAU 1G and increased 63% in DAU 1H. DAU 1K harvest remained stable in 1997. Data indicate some management criteria are below desired levels in DAUs 1G, 1H, and 1K. Harvest was well-distributed among user groups in DAU 1G. Still (stalking) and hound hunting methods contributed to the majority of the black bear harvest in DAU 1H. Still and incidental harvests comprised most of the black bear kill in DAU 1K in 1997. Season restrictions reflecting more conservative harvest strategies were incorporated into the 1992-2000 Black Bear Species Management Plan. These changes took effect in 1993, the 1997 harvest results reflect the fifth 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 1997 in DAU 1H. Harvest data for DAU 1K indicate that the season changes implemented in 1993 have lost their effectiveness for improving harvest criteria.

Area 3: Twenty-four black bears were reported harvested in Area 3 of the Southwest Region in 1997. The percent females in the harvest management criteria does not meet desired levels; however, this criteria alone is not very reliable when overall average harvest is as low as in this DAU (N=32). Harvest incidental to hunting other big game species was the dominant harvest technique in this area. Season changes were incorporated into the 1992-2000 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 Department will manage Area 1 to maintain or reduce harvest, improve age structure, and offer a variety of hunting opportunities. This will include high-quality controlled hunts in DAU 1H. Dog training seasons will open the day after the spring harvest season closes and continue until July 31 in the DAUs that have a dog training season.

The Department will monitor certain population characteristics as reflected in the harvest over three-year segments to evaluate the status of black bear populations. In DAUs where data indicate harvest reductions are necessary, the Department will evaluate harvest distribution, hunter density, season of harvest, and hunting methods before making a recommendation. The criteria that will be used to monitor black bear harvest in DAUs are:

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

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 1981-85 Black Bear Management Plan. Area 1 was divided into DAUs when the 1986-90 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 1986-90 Plan were made based on monitoring of three consecutive years of harvest data and were reflected in the 1992 black bear harvest season. Further season reductions were incorporated into the 1992-2000 Black Bear Management Plan and took effect with the beginning of the 1993 black bear harvest seasons (Table 1).

POPULATION SURVEYS

Bait station surveys were conducted between July 8 and July 13, 1998 to monitor black bear population trends in the Middle Fork and Little Weiser River drainages of DAU 1H. Twenty-two percent of the stations (19 out of 85) were visited by black bear. The 1998 visitation rate was similar to the rate documented in 1997 (Table 2). Surveys have been conducted on an experimental basis in this small portion of DAU 1H since 1984. No bait station surveys were conducted in DAU 1G in 1998 (Table 3).

Population characteristics data for black bear was collected in the Middlefork and Little Weiser River drainages of DAU 1H during June 1998. The information collected will contribute to the ongoing validation of the relationship between actual population characteristics and characteristics of the black bear harvest. The sensitivity of bait station surveys to monitor black bear population trends will also be evaluated using this information. Forty-one bears were captured on 48 occasions. The sample captured was 51% female. Further analysis will be displayed in a final summary for this project.

HARVEST CHARACTERISTICS

Reported harvest in DAU 1G decreased 11% in 1997 from 1996 totals (Table 4). Harvest criteria declined slightly between years for percent females in the harvest (Table 5). Median ages were lower in 1997 than 1996. The black bear harvest in this DAU was greater in the fall than in the spring in 1997 (Table 6). There was adequate distribution of harvest among user groups in DAU 1G in 1997 (Table 7). The rifle is the most prominent weapon of choice for harvesting black bear in DAU 1G (Table 8).

Reported harvest increased 63% in 1997 compared to 1996 in DAU 1H (Table 9). A slight decrease occurred for the percent females in the harvest criteria (Table 10). The average median age still remains below desired levels. The black bear harvest was greater in the fall than the spring in 1997 (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 remained static in 1997 in DAU 1K (Table 14). The percent females in the harvest criteria increased slightly in 1997 from 1996 totals (Table 15). More bears were harvested in the fall than in the spring in DAU 1K in 1997 (Table 16). Still and incidental hunting methods comprised most of the black bear kill in DAU 1K in 1997 (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 lower in 1997 than for 1996 (Table 19).

MANAGEMENT IMPLICATIONS

Harvest restrictions can be recommended for a DAU when harvest criteria indicate black bear populations are overharvested or do not meet desired management levels for a viable, self-sustaining population. Prior to 1993, harvest data from DAUs 1G, 1H, and 1K indicated that these areas received heavy exploitation, which resulted in population parameters below desired management levels. Conservative harvest strategies were developed for these areas, with careful consideration for maintaining a diversity of hunting methods. These strategies were incorporated into the 1992-2000 Black Bear Management Plan and implemented with the beginning of the 1993 black bear harvest season. The 1997 hunting season was the fifth year that these changes were monitored to assess their impact on black bear harvest in DAUs 1G, 1H, and 1K.

The three-year average in DAU 1G indicates that the percent females in the harvest is stable and within acceptable limits. Permit levels in DAU 1H were increased in the 1998 spring season to increase hunter opportunity and increase male bear harvest. The age structure of bears harvested still remains young in this DAU. Data for DAU 1K indicate that the season changes implemented in 1993 have lost their effectiveness for reducing female harvest. Both the reduction in spring season length and the split in the fall season are being compensated for with either increased hunter numbers or increased hunting effort (intensity). Harvest in this DAU needs to be monitored closely to make sure the increasing trend in black bear harvest, especially within the female segment of the population, does not progress and erode harvest criteria to the point of severe overharvest.

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 current harvest levels and distribution. Minor season adjustments may be implemented to conform to statewide management direction. There is no dog training season in Area 3.

Harvest in Area 3 is consistently low, resulting in small samples from which to monitor harvest parameters. Harvest criteria will be monitored, but will only apply if average annual harvest is at least 30 black bears. Professional judgement will be used when average annual harvest is less than 30 black bears.

BACKGROUND

A large portion of DAU 3B is roadless, lying within wilderness boundaries. Except for a few mining roads penetrating the periphery, access in these units is restricted to airplane, packstring, or foot travel. A statewide mandatory report requirement for harvested black bear was introduced in 1983. Year-round seasons and extra black bear tags were eliminated with implementation of the 1986-90 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).

POPULATION SURVEYS

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

HARVEST CHARACTERISTICS

Reported harvest decreased 45% in 1997 compared to 1996 for DAU 3B (Table 21). Percent females in the harvest increased in 1997 (Table 22). The majority of the black bear harvest in DAU 3B occurs during the fall season (Table 23). Still (stalking) hunting and harvest incidental to other species hunting are the primary methods of harvest in this DAU (Table 24). The prominent weapon of choice in DAU 3B is the rifle (Table 25).

DEPREDATIONS

One depredation was reported in DAU 3B in 1997.

MANAGEMENT IMPLICATIONS

Harvest in DAU 3B is usually minor. Small sample sizes preclude meaningful interpretation of harvest criteria. Minor changes to season structure were incorporated into the 1992-2000 Black Bear Management Plan to make this DAU consistent with statewide management direction. These changes took effect with the beginning of the 1993 black bear harvest season. The Department will continue to monitor the harvest criteria for DAU 3B to assess the effects of the season changes on black bear populations.

Table 1. Summary of Seasons by Method for DAUs 1G, 1H, and 1K, July 1, 1997-June 30, 1998.

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

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

^b Bait prohibited.

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

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

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

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

Table 2. Bait station survey results from Council routes (DAU 1H), 1985-98.

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

Table 3. Bait station survey results from DAU 1G, 1991-96.

| Year | Survey Number | Survey Dates | Total Trans. Avail. | Total Trans. Sampled | Total Stations Sampled | Total Stations Visited By Bear | 90% Confidence Interval % (+/-) | |
|------|---------------|--------------|---------------------|----------------------|------------------------|--------------------------------|---------------------------------|-----|
| 1991 | 1 | 6/14-6/19 | 18 | 18 | 90 | 0 | 0 | 0.0 |
| 1992 | 1 | 6/25-6/30 | 67 | 30 | 150 | 3 | 2 | 1.9 |
| 1993 | 1 | 6/24-6/29 | 67 | 30 | 150 | 8 | 5 | 3.3 |
| 1994 | 1 | 6/22-6/27 | 67 | 21 | 105 | 8 | 8 | 3.9 |
| 1995 | 1 | 6/23-6/28 | 67 | 20 | 100 | 5 | 5 | 3.8 |
| 1996 | 1 | 7/12-7/17 | 67 | 21 | 105 | 8 | 8 | 4.2 |

Table 4. Age distribution of black bear checked from DAU 1G^a, 1992-97.

| Age | 1992 | | 1993 | | 1994 | | 1995 | | 1996 | | 1997 | |
|-------|------|----|------|----|------|----|------|----|------|----|------|----|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| Unk. | 3 | 2 | 7 | 7 | 6 | 6 | 2 | 2 | 11 | 13 | 4 | 5 |
| Cub | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 1 | 4 | 1 | 7 | 2 | 4 | 0 | 7 | 5 | 1 | 0 | 7 | 1 |
| 2 | 7 | 3 | 7 | 3 | 14 | 6 | 11 | 7 | 18 | 5 | 6 | 5 |
| 3 | 10 | 4 | 7 | 2 | 2 | 2 | 18 | 6 | 8 | 2 | 18 | 8 |
| 4 | 5 | 2 | 11 | 2 | 5 | 1 | 2 | 1 | 15 | 3 | 6 | 1 |
| 5 | 1 | 3 | 4 | 1 | 5 | 2 | 4 | 1 | 1 | 0 | 7 | 4 |
| 6 | 2 | 0 | 4 | 1 | 2 | 3 | 6 | 3 | 6 | 1 | 2 | 1 |
| 7 | 0 | 1 | 3 | 1 | 1 | 0 | 6 | 4 | 5 | 3 | 2 | 2 |
| 8 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 9 | 1 | 1 | 1 | 0 | 0 | 0 | 3 | 2 | 0 | 1 | 2 | 2 |
| 10+ | 7 | 2 | 7 | 4 | 0 | 2 | 7 | 5 | 10 | 10 | 9 | 8 |
| Total | 42 | 21 | 60 | 23 | 40 | 22 | 67 | 37 | 76 | 39 | 64 | 38 |

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

Table 5. Values of the 1992-2000 management plan criteria for DAU 1G, 1983-97.

| Year | N1 ^a | % Females | Median Age | | | N2 ^b |
|---------------------|-----------------|-----------|------------|---------|-------|-----------------|
| | | | Males | Females | Total | |
| 1983 | 55 | 36 | 4 | 3 | 4 | 45 |
| 1984 | 107 | 38 | 3 | 4 | 3 | 88 |
| 1985 | 91 | 44 | 2 | 5 | 3 | 73 |
| 1986 | 53 | 28 | 4 | 6 | 4 | 41 |
| 1987 | 72 | 26 | 3 | 4 | 4 | 49 |
| 1988 | 64 | 27 | 4 | 4 | 4 | 50 |
| 1989 | 82 | 37 | 3 | 3 | 3 | 63 |
| 1990 | 121 | 34 | 4 | 5 | 4 | 89 |
| 1991 | 99 | 34 | 3 | 7 | 4 | 84 |
| 1992 | 63 | 33 | 3 | 4 | 4 | 59 |
| 1993 | 83 | 28 | 4 | 4 | 4 | 69 |
| 1994 | 62 | 35 | 2 | 3 | 3 | 50 |
| 1995 | 104 | 36 | 3 | 3 | 3 | 100 |
| 1996 | 115 | 34 | 4 | 7 | 4 | 91 |
| 1997 | 102 | 37 | 3 | 5 | 4 | 93 |
| 1995-97 Average | 107 | 33 | 4 | 5* | 4* | 94 |
| (Desired Levels) | | ≤35 | ≥4 | ≥6 | ≥5 | |

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

^a Number of black bears that were sexed.

^b Number of black bears that were aged.

Table 6. Black bear harvest by season and sex of black bear taken in DAU 1G^a since 1983.

| Year | Spring | | | Fall | | | Entire Season | | |
|--------------------|--------|--------|-------|------|--------|-------|---------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1983 | 28 | 14 | 42 | 07 | 06 | 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 | 09 | 05 | 14 | 38 | 15 | 53 |
| 1987 | 28 | 07 | 35 | 25 | 12 | 37 | 53 | 19 | 72 |
| 1988 | 24 | 05 | 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 |
| 1994-96 Average | 31 | 13 | 44 | 30 | 20 | 50 | 61 | 33 | 94 |
| 1997 | 27 | 11 | 38 | 37 | 27 | 64 | 64 | 38 | 102 |
| Difference | -4 | -2 | -6 | +7 | +7 | +14 | +3 | +5 | +8 |

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

Table 7. Method of harvest of black bear taken in DAU 1G (Units 19A, 23, 24, and 25), 1987-97.

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

Table 8. Weapon type used to harvest black bear in DAU 1G (Units 19A, 23, 24, and 25), 1987-97.

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

Table 9. Age distribution of black bear checked from DAU 1H^a, 1992-97.

| Age | <u>1992</u> | | <u>1993</u> | | <u>1994</u> | | <u>1995</u> | | <u>1996</u> | | <u>1997</u> | |
|-------|-------------|----|-------------|---|-------------|----|-------------|----|-------------|----|-------------|----|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| Unk. | 7 | 5 | 3 | 1 | 2 | 1 | 5 | 1 | 3 | 4 | 5 | 1 |
| Cub | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 5 | 3 | 3 | 0 | 2 | 1 | 3 | 1 | 2 | 0 | 5 | 1 |
| 2 | 7 | 6 | 2 | 1 | 5 | 1 | 1 | 3 | 10 | 4 | 7 | 0 |
| 3 | 2 | 4 | 5 | 1 | 1 | 2 | 2 | 2 | 2 | 0 | 7 | 2 |
| 4 | 1 | 2 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 0 | 4 | 2 |
| 5 | 0 | 3 | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 1 |
| 6 | 1 | 6 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 4 | 2 |
| 7 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 |
| 8 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |
| 9 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 10+ | 3 | 6 | 0 | 1 | 0 | 1 | 0 | 1 | 2 | 1 | 1 | 3 |
| Total | 29 | 36 | 15 | 8 | 14 | 10 | 18 | 11 | 22 | 10 | 38 | 14 |

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

Table 10. Values of the 1992-2000 management plan criteria for DAU 1H, 1983-97.

| Year | N1 ^a | % Females | Median Age | | | N2 ^b |
|---------------------|-----------------|-----------|------------|---------|-------|-----------------|
| | | | Males | Females | Total | |
| 1983 | 35 | 29 | 4 | 2 | 4 | 21 |
| 1984 | 32 | 44 | 2 | 4 | 2 | 24 |
| 1985 | 43 | 47 | 2 | 4 | 3 | 37 |
| 1986 | 22 | 23 | 3 | 5 | 3 | 13 |
| 1987 | 51 | 43 | 3 | 3 | 3 | 38 |
| 1988 | 67 | 48 | 5 | 4 | 4 | 51 |
| 1989 | 83 | 45 | 2 | 4 | 3 | 59 |
| 1990 | 59 | 41 | 2 | 3 | 2 | 47 |
| 1991 | 55 | 29 | 3 | 6 | 3 | 51 |
| 1992 | 65 | 55 | 2 | 5 | 3 | 53 |
| 1993 | 23 | 35 | 3 | 5 | 3 | 19 |
| 1994 | 24 | 42 | 2 | 4 | 3 | 21 |
| 1995 | 29 | 38 | 4 | 3 | 3 | 23 |
| 1996 | 32 | 31 | 2 | 2 | 2 | 25 |
| 1997 | 52 | 27 | 3 | 6 | 4 | 46 |
| 1995-97 Average | 38 | 31 | 3* | 4* | 3* | 31 |
| (Desired Levels) | | ≤35 | ≥4 | ≥6 | ≥5 | |

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

^a Number of black bears that were sexed.

^b Number of black bears that were aged.

Table 11. Black bear harvest by season and sex of black bear taken in DAU 1H^a since 1983.

| 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 |
| 1994-96 | 10 | 2 | 12 | 8 | 8 | 16 | 18 | 10 | 28 |
| 1997 | 15 | 6 | 21 | 23 | 8 | 31 | 38 | 14 | 52 |
| Difference | +5 | +4 | +9 | +15 | 0 | +15 | +20 | +4 | +24 |

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

Table 12. Method of harvest of black bear taken in DAU 1H (Units 22, 31, 32, and 32A), 1987-97.

| Year | Bait | | Hound | | Still | | Incidental | | Other | | Total | |
|------|------|---|-------|----|-------|----|------------|----|-------|---|-------|----|
| | 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 |
| 1992 | 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 |

Table 13. Weapon type used to harvest black bear in DAU 1H (Units 22, 31, 32, and 32A), 1987-97.

| Year | Rifle | | Archery | | Muzzleloader | | Pistol | | Other | | Total | |
|------|-------|----|---------|---|--------------|---|--------|---|-------|---|-------|----|
| | 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 |

Table 14. Age distribution of black bear checked from DAU 1K^a, 1992-97.

| Age | 1992 | | 1993 | | 1994 | | 1995 | | 1996 | | 1997 | |
|-------|------|----|------|----|------|----|------|----|------|----|------|----|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| Unk. | 7 | 4 | 5 | 8 | 12 | 8 | 11 | 10 | 6 | 7 | 5 | 6 |
| Cub | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 2 | 2 | 13 | 1 | 8 | 0 | 14 | 10 | 8 | 4 | 10 | 3 |
| 2 | 5 | 1 | 5 | 2 | 23 | 12 | 12 | 3 | 25 | 14 | 8 | 9 |
| 3 | 5 | 8 | 1 | 2 | 4 | 2 | 32 | 14 | 6 | 8 | 25 | 12 |
| 4 | 11 | 1 | 11 | 2 | 6 | 1 | 5 | 3 | 14 | 6 | 2 | 2 |
| 5 | 4 | 0 | 5 | 0 | 3 | 8 | 3 | 1 | 2 | 2 | 13 | 4 |
| 6 | 1 | 0 | 2 | 1 | 8 | 3 | 9 | 6 | 3 | 0 | 3 | 1 |
| 7 | 2 | 3 | 5 | 2 | 5 | 0 | 3 | 1 | 2 | 2 | 1 | 3 |
| 8 | 1 | 0 | 2 | 0 | 0 | 0 | 3 | 2 | 3 | 1 | 4 | 4 |
| 9 | 1 | 1 | 1 | 1 | 2 | 2 | 4 | 1 | 1 | 1 | 0 | 3 |
| 10+ | 5 | 1 | 3 | 4 | 4 | 5 | 3 | 6 | 6 | 6 | 4 | 9 |
| Total | 44 | 21 | 53 | 23 | 76 | 41 | 99 | 57 | 76 | 51 | 75 | 56 |

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

Table 15. Values of the 1992-2000 management plan criteria for DAU 1K, 1983-97.

| Year | N1 ^a | % Females | Median Age | | | N2 ^b |
|---------------------|-----------------|-----------|------------|---------|-------|-----------------|
| | | | Males | Females | Total | |
| 1983 | 57 | 26 | 3 | 5 | 3 | 49 |
| 1984 | 65 | 35 | 3 | 3 | 3 | 55 |
| 1985 | 102 | 42 | 2 | 4 | 2 | 86 |
| 1986 | 90 | 36 | 3 | 4 | 3 | 58 |
| 1987 | 70 | 34 | 3 | 4 | 3 | 57 |
| 1988 | 131 | 41 | 4 | 4 | 4 | 96 |
| 1989 | 179 | 30 | 2 | 3 | 3 | 153 |
| 1990 | 221 | 38 | 3 | 3 | 3 | 160 |
| 1991 | 127 | 39 | 4 | 5 | 4 | 109 |
| 1992 | 65 | 32 | 4 | 3 | 4 | 54 |
| 1993 | 76 | 30 | 4 | 6 | 4 | 63 |
| 1994 | 117 | 35 | 2 | 5 | 3 | 97 |
| 1995 | 156 | 37 | 3 | 3 | 3 | 135 |
| 1996 | 127 | 40 | 3 | 3 | 3 | 114 |
| 1997 | 131 | 43 | 3 | 4 | 3 | 120 |
| 1995-97 Average | 138 | 39* | 3* | 3* | 3* | 123 |
| (Desired Levels) | | ≤35 | ≥4 | ≥6 | ≥5 | |

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

^a Number of black bears that were sexed.

^b Number of black bears that were aged.

Table 16. Black bear harvest by season and sex of black bear taken in DAU 1K^a since 1983.

| Year | Spring | | | Fall | | | Entire Season | | |
|--------------------|--------|--------|-------|------|--------|-------|---------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1983 | 29 | 10 | 39 | 13 | 5 | 18 | 42 | 15 | 57 |
| 1984 | 28 | 21 | 49 | 14 | 2 | 16 | 42 | 23 | 65 |
| 1985 | 45 | 23 | 68 | 14 | 20 | 34 | 59 | 43 | 102 |
| 1986 | 41 | 26 | 67 | 17 | 6 | 23 | 58 | 32 | 90 |
| 1987 | 25 | 15 | 40 | 21 | 9 | 30 | 46 | 24 | 70 |
| 1988 | 51 | 30 | 81 | 26 | 24 | 50 | 77 | 54 | 131 |
| 1989 | 80 | 28 | 108 | 46 | 25 | 71 | 126 | 53 | 179 |
| 1990 | 60 | 36 | 96 | 78 | 47 | 125 | 138 | 83 | 221 |
| 1991 | 56 | 33 | 89 | 22 | 16 | 38 | 78 | 49 | 127 |
| 1992 | 34 | 11 | 45 | 10 | 10 | 20 | 44 | 21 | 65 |
| 1993 | 26 | 12 | 38 | 27 | 11 | 38 | 53 | 23 | 76 |
| 1994 | 35 | 21 | 56 | 41 | 20 | 61 | 76 | 41 | 117 |
| 1995 | 52 | 21 | 73 | 47 | 36 | 83 | 99 | 57 | 156 |
| 1996 | 45 | 32 | 77 | 31 | 19 | 50 | 76 | 51 | 127 |
| 1994-96 Average | 44 | 25 | 69 | 40 | 25 | 65 | 84 | 50 | 134 |
| 1997 | 34 | 23 | 57 | 41 | 33 | 74 | 75 | 56 | 131 |
| Difference | -10 | -2 | -12 | +1 | +8 | +9 | -9 | +6 | -3 |

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

Table 17. Method of harvest of black bear taken in DAU 1K (Units 33, 39, and 43), 1987-97.

| Year | Bait | | Hound | | Still | | Incidental | | Other | | Total | |
|------|------|----|-------|----|-------|----|------------|----|-------|---|-------|----|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| 1987 | 17 | 8 | 4 | 4 | 14 | 5 | 8 | 6 | 3 | 1 | 46 | 24 |
| 1988 | 30 | 11 | 14 | 14 | 14 | 12 | 16 | 15 | 3 | 2 | 77 | 54 |
| 1989 | 41 | 18 | 28 | 8 | 24 | 8 | 21 | 14 | 12 | 5 | 126 | 53 |
| 1990 | 22 | 15 | 30 | 13 | 40 | 31 | 35 | 17 | 11 | 7 | 138 | 83 |
| 1991 | 21 | 14 | 9 | 9 | 30 | 13 | 14 | 10 | 4 | 3 | 78 | 49 |
| 1992 | 16 | 5 | 10 | 1 | 11 | 7 | 6 | 7 | 1 | 1 | 44 | 21 |
| 1993 | 13 | 4 | 8 | 5 | 12 | 3 | 19 | 8 | 1 | 3 | 53 | 23 |
| 1994 | 16 | 12 | 15 | 2 | 17 | 14 | 24 | 13 | 4 | 0 | 76 | 41 |
| 1995 | 24 | 10 | 16 | 6 | 35 | 20 | 21 | 20 | 3 | 1 | 99 | 57 |
| 1996 | 18 | 16 | 9 | 9 | 21 | 16 | 27 | 9 | 1 | 1 | 76 | 51 |
| 1997 | 20 | 9 | 9 | 7 | 20 | 18 | 26 | 21 | 0 | 1 | 75 | 56 |

Table 18. Weapon type used to harvest black bear in DAU 1K (Units 33, 39, and 43), 1987-97.

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

Table 19. Black bear depredation complaints handled in the Southwest Region, 1992-97.

| DAU | Year | | | | | |
|-------|------|------|------|------|------|------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
| 1G | 4 | 4 | 3 | 7 | 11 | 1 |
| 1H | 2 | 0 | 0 | 2 | 4 | 1 |
| 1K | 5 | 2 | 3 | 11 | 3 | 2 |
| 3B | 0 | 0 | 1 | 1 | 1 | 1 |
| Total | 11 | 6 | 7 | 21 | 19 | 5 |

Table 20. Summary of Seasons by Method for DAU 3B, July 1, 1997-June 30, 1998.

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

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

Table 21. Age distribution of black bear checked from DAU 3B^a, 1992-97.

| Age | 1992 | | 1993 | | 1994 | | 1995 | | 1996 | | 1997 | |
|-------|------|---|------|----|------|----|------|----|------|----|------|----|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| Unk. | 3 | 1 | 3 | 5 | 3 | 5 | 3 | 1 | 0 | 3 | 2 | 0 |
| Cub | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 7 | 0 | 3 | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| 2 | 1 | 1 | 1 | 2 | 4 | 7 | 2 | 1 | 6 | 1 | 0 | 1 |
| 3 | 0 | 1 | 1 | 3 | 1 | 4 | 5 | 3 | 5 | 1 | 4 | 0 |
| 4 | 0 | 1 | 1 | 2 | 3 | 0 | 0 | 0 | 10 | 0 | 4 | 2 |
| 5 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 1 | 2 |
| 6 | 2 | 0 | 4 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 |
| 7 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 2 | 2 | 0 | 1 |
| 8 | 2 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 2 | 1 | 0 | 1 |
| 9 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| 10+ | 1 | 2 | 4 | 5 | 11 | 2 | 1 | 5 | 7 | 0 | 1 | 2 |
| Total | 10 | 7 | 26 | 20 | 29 | 21 | 14 | 14 | 33 | 11 | 13 | 11 |

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

^b Age data incomplete at reporting time.

Table 22. Values of the 1992-2000 management plan criteria for DAU 3B, 1983-97.

| Year | N1 ^a | % Females | Median Age | | | N2 ^b |
|---------------------|-----------------|-----------|------------|---------|-------|-----------------|
| | | | Males | Females | Total | |
| 1983 | 9 | 44 | 4 | 4 | 4 | 7 |
| 1984 | 19 | 37 | 5 | 5 | 5 | 17 |
| 1985 | 22 | 23 | 5 | 2 | 3 | 19 |
| 1986 | 35 | 37 | 3 | 4 | 3 | 26 |
| 1987 | 36 | 31 | 4 | 4 | 4 | 20 |
| 1988 | 41 | 34 | 5 | 4 | 4 | 35 |
| 1989 | 27 | 30 | 5 | 5 | 5 | 23 |
| 1990 | 32 | 47 | 4 | 4 | 4 | 19 |
| 1991 | 35 | 43 | 7 | 7 | 7 | 30 |
| 1992 | 17 | 41 | 7 | 4 | 6 | 13 |
| 1993 | 46 | 43 | 5 | 7 | 5 | 38 |
| 1994 | 50 | 42 | 8 | 4 | 4 | 42 |
| 1995 | 28 | 50 | 3 | 5 | 3 | 24 |
| 1996 | 44 | 25 | 4 | 6.5 | 4 | 41 |
| 1997 | 24 | 46 | 4 | 7 | 4 | 22 |
| 1995-97 Average | 32 | 38* | 4 | 6.5 | 4* | 29 |
| (Desired Levels) | | ≤35 | ≥4 | ≥6 | ≥5 | |

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

^a Number of black bears that were sexed.

^b Number of black bears that were aged.

Table 23. Black bear harvest by season and sex of black bear taken in DAU 3B^a since 1983.

| Year | Spring | | | Fall | | | Entire Season | | |
|--------------------|--------|--------|-------|------|--------|-------|---------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1983 | 5 | 1 | 6 | 0 | 3 | 3 | 5 | 4 | 9 |
| 1984 | 4 | 5 | 9 | 8 | 2 | 10 | 12 | 7 | 19 |
| 1985 | 8 | 2 | 10 | 9 | 3 | 12 | 17 | 5 | 22 |
| 1986 | 9 | 1 | 10 | 13 | 12 | 25 | 22 | 13 | 35 |
| 1987 | 9 | 2 | 11 | 16 | 9 | 25 | 25 | 11 | 36 |
| 1988 | 16 | 5 | 21 | 11 | 9 | 20 | 27 | 14 | 41 |
| 1989 | 9 | 7 | 16 | 10 | 1 | 11 | 19 | 8 | 27 |
| 1990 | 1 | 2 | 3 | 16 | 13 | 19 | 17 | 15 | 32 |
| 1991 | 13 | 7 | 20 | 7 | 8 | 15 | 20 | 15 | 35 |
| 1992 | 5 | 4 | 9 | 5 | 3 | 8 | 10 | 7 | 17 |
| 1993 | 4 | 4 | 8 | 22 | 16 | 38 | 26 | 20 | 46 |
| 1994 | 5 | 3 | 8 | 24 | 18 | 42 | 29 | 21 | 50 |
| 1995 | 2 | 7 | 9 | 12 | 7 | 19 | 14 | 14 | 28 |
| 1996 | 6 | 3 | 9 | 27 | 8 | 35 | 33 | 11 | 44 |
| 1994-96 Average | 4 | 4 | 8 | 21 | 11 | 32 | 25 | 15 | 40 |
| 1997 | 5 | 3 | 8 | 8 | 8 | 16 | 13 | 11 | 24 |
| Difference | +1 | -1 | 0 | -13 | -3 | -16 | -12 | -4 | -16 |

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

Table 24. Method of harvest of black bear taken in DAU 3B (Units 20A, 26, and 27), 1987-97.

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

Table 25. Weapon type used to harvest black bear in DAU 3B (Units 20A, 26, and 27), 1987-97.

| 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 | 29 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 21 |
| 1995 | 13 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 14 |
| 1996 | 33 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 11 |
| 1997 | 13 | 9 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 13 | 11 |

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE: Idaho **JOB TITLE:** Black Bear Surveys and Inventories
PROJECT: W-170-R-22
SUBPROJECT: 4 **STUDY NAME:** Big Game Population Status, Trends,
Utilization and Associated Habitat
Studies
STUDY: I
JOB: 9
PERIOD COVERED: July 1, 1997 to June 30, 1998

BLACK BEAR - MAGIC VALLEY REGION

ABSTRACT

Twenty-eight black bears were harvested in DAU 4A in 1997, 28% above the 1985-96 mean of 22 black bears. The small sample size precludes use of criteria established in the 1992-2000 Black Bear Management Plan for monitoring black bear populations. Baiting, incidental, and still hunting accounted for 11%, 30%, and 37%, respectively, of the black bears harvested. Hound hunting accounted for only 3 of the 28 black bears taken. Most black bears were taken by rifle (89%), while only 3 black bear (11%) were killed with archery equipment. Three depredation complaints were received by the Department and USDA Wildlife Services responded to two additional complaints.

AREA 4

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

MANAGEMENT DIRECTION

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

BACKGROUND

The units in DAU 4A are on the southern edge of black bear range in Idaho and black bear densities are relatively low. Harvest in this DAU generally comprises less than 5% of the statewide black bear harvest annually. Drought conditions persisted from 1986-1992 and resulted in an increase in black bear complaints around campgrounds and residences in the Big Wood River Valley. Good spring and early summer precipitation improved habitat conditions in 1993-97.

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, and 48 due to conflicts with other recreationists and livestock operators.

HARVEST CHARACTERISTICS

The spring hunting season in 1997 was unchanged from the previous 4 years, while the fall season was increased two weeks by eliminating the closure during the first two weeks of October. Both seasons followed frameworks adopted in the 1992-2000 Black Bear Management Plan (Table 1).

Twenty-eight black bears were harvested in 1997, which is 28% higher than the 1985-96 average of 22 black bears. The spring harvest of 13 black bears was the highest since 1994. Access to mid- and high elevations was good because of a moderate snowpack and warm spring rains. Female harvest was 59% above the 1994-96 average. Ten of the 28 (36%) black bears checked were females (Table 2).

Because only 28 black bears were harvested in this DAU, criteria developed in the black bear management plan to monitor populations cannot be applied. A sample of at least 30 harvested black bears annually is recommended to avoid inaccurate inferences from the data.

Sixty-five percent of the black bears aged in 1997 were 3 years or older (Table 3). Median ages of black bears checked in 1997 was 4 years for males, 3 years for females, and 3.5 years for all black bears combined (Table 4).

Still and incidental hunting accounted for 64% of all black bears harvested in this DAU in 1997. Six of the 28 black bears harvested in 1997 were taken over bait. This was a 200% increase in this method of take over 1996. Hound hunting accounted for only 11% of the harvested black bears (Table 5).

Rifles and archery equipment accounted for 86% and 11% of the 1997 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 1997, 1 complaint was received on a black bear getting into garbage cans at a home in Unit 48 and 2 were received for bears getting into bird feeders. In 1994 dry, hot conditions in late summer resulted in a record 9 complaints (Table 7).

Depredations on livestock are handled by Wildlife Services personnel. From 1987-1996, we received mortality reports on 9 black bears harvested by Wildlife Services (3-1988, 1-1990, 3-1993, 1-1994, 1-1995, 0-1996) for this DAU. In 1997, 2 black bears were harvested by Wildlife Services personnel.

DOG TRAINING SEASON

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

MANAGEMENT IMPLICATIONS

In only 2 of the past 11 years has black bear harvest in DAU 4A been 30 or above, the minimum level to apply plan criteria. However, since implementation of the 1992-2000 Black Bear Management Plan, females in the harvest have averaged 31% and the trend in median age is decreasing. The median age of harvested males appears to have remained relatively constant over the past 11 years. In most years, black bear complaints and depredation problems have been at tolerable levels. There is little need indicated to change current black bear management. Although the data doesn't support it, it is the opinion of the region that DAU 4A's black bear population is increasing.

Table 1. Summary of Seasons by Method for DAU 4A, 1997.

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

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

^b Dogs prohibited from September 15 through October 31.

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

| Year | Spring | | | Fall | | | Entire Season | | |
|--------------------|--------|--------|-------|------|--------|-------|---------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1985 ^b | 10 | 7 | 17 | 2 | 0 | 2 | 12 | 7 | 19 |
| 1986 ^b | 10 | 5 | 15 | 3 | 1 | 4 | 13 | 6 | 19 |
| 1987 | 13 | 2 | 15 | 1 | 1 | 2 | 14 | 3 | 17 |
| 1988 | 13 | 7 | 20 | 7 | 2 | 9 | 20 | 9 | 29 |
| 1989 | 11 | 3 | 14 | 5 | 6 | 11 | 16 | 9 | 25 |
| 1990 | 12 | 9 | 21 | 5 | 6 | 11 | 17 | 15 | 32 |
| 1991 | 13 | 8 | 21 | 2 | 2 | 4 | 15 | 10 | 25 |
| 1992 | 7 | 4 | 11 | 4 | 1 | 5 | 11 | 5 | 16 |
| 1993 | 5 | 3 | 8 | 8 | 1 | 9 | 13 | 4 | 17 |
| 1994 | 12 | 5 | 17 | 7 | 6 | 13 | 19 | 11 | 30 |
| 1995 | 8 | 2 | 10 | 7 | 1 | 8 | 15 | 3 | 18 |
| 1996 | 7 | 3 | 10 | 1 | 2 | 3 | 8 | 5 | 13 |
| 1994-96 Average | 9.0 | 3.3 | 12.3 | 5.0 | 3.0 | 8.0 | 14.0 | 6.3 | 20.3 |
| 1997 | 9 | 5 | 14 | 9 | 5 | 14 | 18 | 10 | 28 |
| Difference | 0% | +51% | +14% | +80% | +67% | +75% | +29% | +59% | +38% |

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

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

Table 3. Age distribution of black bear checked from DAU 4A^a, 1992-97.

| Age | 1992 | | 1993 | | 1994 | | 1995 | | 1996 | | 1997 | |
|-------|------|---|------|---|------|----|------|---|------|---|------|----|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| Unk. | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Cub | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 1 | 2 | 1 | 2 | 0 | 5 | 0 | 3 | 1 | 0 | 0 | 3 | 1 |
| 2 | 3 | 0 | 1 | 0 | 5 | 1 | 3 | 0 | 2 | 1 | 2 | 1 |
| 3 | 1 | 2 | 3 | 1 | 3 | 1 | 5 | 0 | 0 | 2 | 2 | 3 |
| 4 | 1 | 1 | 2 | 0 | 1 | 3 | 2 | 0 | 3 | 2 | 6 | 1 |
| 5 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 2 | 0 |
| 6 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| 8 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 10+ | 1 | 0 | 1 | 3 | 0 | 3 | 2 | 1 | 0 | 0 | 0 | 1 |
| Total | 11 | 5 | 13 | 4 | 19 | 11 | 15 | 3 | 8 | 5 | 18 | 10 |

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

Table 4. Values of the 1992-2000 management plan criteria for DAU 4A, 1984-96

| Year | N ^a | % Females | Median Age | | |
|------------------|----------------|--------------|--------------|--------------|--------------|
| | | | Males | Females | Total |
| 1984 | ND | ND | | ND | |
| 1985 | ND | 37 | | ND | |
| 1986 | ND | 32 | | | |
| 1987 | 15 | 18 | 3 | 3 | 3 |
| 1988 | 19 | 31 | 3 | 2 | 3 |
| 1989 | 21 | 36 | 3 | 3 | 3 |
| 1990 | 31 | 47 | 2 | 5 | 3 |
| 1991 | 23 | 40 | 4 | 5 | 4 |
| 1992 | 16 | 31 | 3 | 3 | 3 |
| 1993 | 17 | 24 | 3 | 10+ | 3 |
| 1994 | 30 | 37 | 2 | 6 | 4 |
| 1995 | 18 | 17 | 3 | 5 | 3 |
| 1996 | 13 | 38 | 4 | 3 | 4 |
| 1997 | 26 | 36 | 4 | 3 | 3.5 |
| 1995-97 | | | | | |
| Average | 19 | ^b | ^b | ^b | ^b |
| (Desired Levels) | | ≤35 | ≥4 | ≥6 | ≥5 |

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

^a Number of black bears that were aged.

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

Table 5. Method of harvest of black bear taken in DAU 4A, 1987-97.

| 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 |

Table 6. Weapon type used to harvest black bear in DAU 4A, 1987-97.

| 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 |

Table 7. Black bear depredation complaints handled in the Magic Valley Region, 1991-97.

| DAU | Year | | | | | | |
|-------|------|------|------|------|------|------|------|
| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
| 4A | 1 | 2 | 2 | 9 | 4 | 1 | 3 |
| Total | 1 | 2 | 2 | 9 | 4 | 1 | 3 |

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE: Idaho **JOB TITLE:** Black Bear Surveys and Inventories
PROJECT: W-170-R-22
SUBPROJECT: 5 and 6 **STUDY NAME:** Big Game Population Status, Trends,
Utilization and Associated Habitat
Studies
STUDY: I
JOB: 9
PERIOD COVERED: July 1, 1997 to June 30, 1998

BLACK BEAR - UPPER SNAKE REGION

ABSTRACT

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

AREA 4

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

ABSTRACT

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

MANAGEMENT DIRECTION

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

BACKGROUND

Area 4 contains relatively dry black bear habitats where timber stands are generally distributed on moister north and east aspects. These habitats are marginal for black bear because they grow few

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

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

Spring and summer temperatures and precipitation were near normal. Conditions were warmer and slightly drier than normal through the fall months. Winter precipitation was near normal while temperatures were above average. Extremely cool and wet conditions prevailed during the spring and early summer (through June) of 1998.

POPULATION SURVEYS

No population surveys were conducted during this reporting period.

HARVEST CHARACTERISTICS

A relatively small number (<30) of black bears are checked from DAU 4B annually. Therefore, harvest data are derived from small sample sizes, and conclusions are tenuous. The 1992-2000 Black Bear Management Plan states that when average annual harvest is less than 30 black bears, the black bear management criteria do not apply, and management decisions will be based on professional judgement of Department biologists.

Twenty-seven black bears were checked from DAU 4B in 1997, the second largest total (28 black bears were harvested in 1996) in the last ten-year period (Table 2). Age was determined for all 27 black bears harvested. Age distribution of black bear checked from DAU 4B is shown in Table 3.

While overharvest criteria do not apply in this DAU due to low average annual harvest levels, harvest data and plan criteria are presented in Table 4. All four management plan criteria were exceeded in 1997, while the 1995-1997 average shows two of the four overharvest criteria being exceeded. There has been concern about overharvest in these units at various times over the past 10 years. Beginning in 1993, take seasons were shortened by eliminating two weeks from the front of the spring season and one week off the end. Fall take season was also reduced by a total of four weeks (two weeks off both the beginning and the end of the season). These changes were consistent with statewide reductions. These changes have had little apparent effect on total black bear harvest to date.

The breakdown of harvest by method and weapon type is shown in Tables 5 and 6, respectively. Bait (44%) and hound hunters (30%) again accounted for the majority of the harvest by method of take for this DAU.

DEPREDATIONS

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

DOG TRAINING SEASONS

The 1997 dog training season ran from June 8-July 31 in DAU 4B.

MANAGEMENT IMPLICATIONS

Overharvest criteria do not apply in this DAU due to low average annual harvest. However, there has been concern about possible overharvest in this DAU at various times over the past 10 years, and two of the four overharvest criteria were exceeded in 1996. Reductions in the take season were implemented in 1993 and will continue to be monitored to determine future effects, although to date, these changes have not resulted in a reduction in harvest or an improvement in meeting overharvest criteria.

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

ABSTRACT

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

MANAGEMENT DIRECTION

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

BACKGROUND

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

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

Spring and summer temperatures and precipitation were near normal. Conditions were warmer and slightly drier than normal through the fall months. Winter precipitation was near normal while temperatures were above average. Extremely cool and wet conditions prevailed during the spring and early summer (through June) of 1998.

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.

Twenty-three black bears were checked from DAU 4C in 1997. This total represents the fourth highest yearly harvest for this DAU in the past ten years (29 black bears were harvested in 1996 and 1995, and 26 in 1994). Black bear harvest by season and sex is shown in Table 8. Age distribution of black bear checked from DAU 4C is presented in Table 9.

While overharvest criteria do not apply in this DAU due to low average annual harvest levels, harvest data and plan criteria are presented in Table 10. Two of the four overharvest criteria were exceeded both in 1997 and for the 1995-1997 period. Concern over possible overharvest problems in this DAU resulted in a reduction in take seasons beginning in 1993. A total of four weeks were eliminated from both the spring and fall seasons (two weeks off both the beginning and end of the seasons). These changes were consistent with statewide reductions.

The breakdown of 1996 harvest by method and weapon type is shown in Tables 11 and 12, respectively.

DEPREDACTIONS

Six black bear nuisance complaints were received from DAU 4C during this reporting period (Table 7), resulting in the relocation of six black bears. These complaints involved black bears getting into garbage in the Island Park area. Additionally, Wildlife Services verified two depredation complaints involving a total of three sheep.

DOG TRAINING SEASON

The 1997 dog training season ran from June 8-July 31 in the open portion of DAU 4C (that portion of Unit 61 west of Howard Creek in Clark County) and all of Unit 60.

MANAGEMENT IMPLICATIONS

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

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

ABSTRACT

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

MANAGEMENT DIRECTION

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

BACKGROUND

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

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

Spring and summer temperatures and precipitation were near normal. Conditions were warmer and slightly drier than normal through the fall months. Winter precipitation was near normal while temperatures were above average. Extremely cool and wet conditions prevailed during the spring and early summer (through June) of 1998.

POPULATION SURVEYS

No bait station surveys have been conducted in DAU 4D since 1992 (Table 13).

HARVEST CHARACTERISTICS

A total of 38 black bears were checked from DAU 4D in 1997 (Table 14). This represents a tie for the largest total in the last 10 years. The average annual harvest for the preceding three-year period (1993-1996) was 23.3. Age distribution of black bears checked from DAU 4D is shown in Table 15.

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

DEPREDACTIONS

Wildlife Services verified four complaints involving black bear predation on a total of nine sheep in DAU 4D during this reporting period (Table 7).

DOG TRAINING SEASON

The 1997 dog training season ran from June 8-July 31 in DAU 4D.

MANAGEMENT IMPLICATIONS

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

AREA 5

GMUs 60A, 63, 63A

ABSTRACT

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

MANAGEMENT DIRECTION

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

BACKGROUND

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

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

POPULATION SURVEYS

No population surveys are conducted in Area 5.

HARVEST CHARACTERISTICS

None.

DEPREDACTIONS

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

DOG TRAINING SEASON

None.

MANAGEMENT IMPLICATIONS

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

Table 1. Summary of Seasons by Method for DAUs 4B, 4C and 4D, Fall 1997 - Spring 1998.

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

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

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

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

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

| Year | Spring | | | Fall | | | Entire Season | | |
|----------------------|--------|--------|-------|------|--------|-------|---------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1985 | 4 | 7 | 11 | 1 | 0 | 1 | 5 | 7 | 12 |
| 1986 | 5 | 1 | 6 | 4 | 0 | 4 | 9 | 1 | 10 |
| 1987 | 3 | 3 | 6 | 9 | 5 | 14 | 12 | 8 | 20 |
| 1988 | 6 | 4 | 10 | 4 | 5 | 9 | 10 | 9 | 19 |
| 1989 | 4 | 2 | 6 | 2 | 0 | 2 | 6 | 2 | 8 |
| 1990 | 5 | 5 | 10 | 7 | 0 | 7 | 12 | 5 | 17 |
| 1991 | 7 | 3 | 10 | 4 | 1 | 5 | 11 | 4 | 15 |
| 1992 | 6 | 5 | 11 | 7 | 5 | 12 | 13 | 10 | 23 |
| 1993 | 4 | 4 | 8 | 6 | 3 | 9 | 10 | 7 | 17 |
| 1994 | 10 | 6 | 16 | 5 | 4 | 9 | 15 | 10 | 25 |
| 1995 | 8 | 6 | 14 | 3 | 1 | 4 | 11 | 7 | 18 |
| 1996 | 18 | 4 | 22 | 3 | 3 | 6 | 21 | 7 | 28 |
| 1994-1996 Average | 12.0 | 5.3 | 17.3 | 3.7 | 2.7 | 6.3 | 15.7 | 8.0 | 23.7 |
| 1997 | 13 | 7 | 20 | 4 | 3 | 7 | 17 | 10 | 27 |
| Difference | -1.0 | -1.7 | -2.7 | -0.3 | -0.3 | -0.7 | -1.3 | -2.0 | -3.3 |

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

Table 3. Age distribution of black bear checked from DAU 4B^a, 1991-1997.

| Age | 1991 | | 1992 | | 1993 | | 1994 | | 1995 | | 1996 | | 1997 | |
|---------|------|---|------|----|------|---|------|----|------|---|------|---|------|---|
| | 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 |
| Cub | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 1 | 1 | 0 | 2 | 3 | 2 | 0 | 2 | 0 | 3 | 0 | 3 | 0 | 3 | 0 |
| 2 | 3 | 1 | 1 | 1 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 3 | 1 | 0 | 3 | 0 | 4 | 2 | 2 | 1 | 1 | 1 | 4 | 1 | 1 | 1 |
| 4 | 2 | 1 | 3 | 0 | 0 | 3 | 5 | 4 | 2 | 0 | 5 | 0 | 2 | 0 |
| 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 3 | 2 | 2 | 2 | 3 | 2 |
| 6 | 1 | 0 | 1 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 7 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 8 | 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 |
| 10+ | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 1 | 2 | 2 | 1 | 1 | 2 |
| Total | 11 | 4 | 13 | 10 | 10 | 7 | 15 | 10 | 11 | 7 | 21 | 7 | 11 | 7 |

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

Table 4. Values of the 1992-2000 management plan criteria for DAU 4B, 1985-1997.

| 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 |
| 1995-1997 Average | 24.3 | 32.9 | 4 | *5 | *4 |
| Desired Levels | | ≤35 | ≥4 years | ≥6 years | ≥5 years |

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

Table 5. Method of harvest of black bear taken in DAU 4B (Units 50, 51, 58, 59, and 59A), 1987-1997.

| 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 |

Table 6. Weapon type used to harvest black bear in DAU 4B, (Units 50, 51, 58, 59, and 59A), 1987-1997.

| Year | Rifle | | Archery | | Muzzleloader | | 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 |

Table 7. Black bear depredation complaints handled in the Upper Snake Region, 1991-1997.

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

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

| Year | Spring | | | Fall | | | Entire Season | | |
|----------------------|--------|--------|-------|------|--------|-------|---------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1985 | 2 | 2 | 4 | 3 | 0 | 3 | 5 | 2 | 7 |
| 1986 | 4 | 0 | 4 | 13 | 3 | 16 | 17 | 3 | 20 |
| 1987 | 1 | 2 | 3 | 2 | 5 | 7 | 3 | 7 | 10 |
| 1988 | 3 | 0 | 3 | 12 | 7 | 19 | 15 | 7 | 22 |
| 1989 | 6 | 2 | 8 | 5 | 0 | 5 | 11 | 2 | 13 |
| 1990 | 7 | 0 | 7 | 5 | 3 | 8 | 12 | 3 | 15 |
| 1991 | 6 | 2 | 8 | 3 | 2 | 5 | 9 | 4 | 13 |
| 1992 | 5 | 3 | 8 | 3 | 1 | 4 | 8 | 3 | 11 |
| 1993 | 7 | 3 | 10 | 2 | 3 | 5 | 9 | 6 | 15 |
| 1994 | 6 | 3 | 9 | 12 | 5 | 17 | 18 | 8 | 26 |
| 1995 | 8 | 7 | 15 | 10 | 4 | 14 | 18 | 11 | 29 |
| 1996 | 12 | 2 | 14 | 7 | 8 | 15 | 19 | 10 | 29 |
| 1994-1996 Average | 8.7 | 4.0 | 12.7 | 9.7 | 5.7 | 15.3 | 18.3 | 9.7 | 28.0 |
| 1997 | 12 | 1 | 13 | 6 | 4 | 10 | 18 | 5 | 23 |
| Difference | -3.3 | 3.0 | -0.3 | 3.7 | 1.7 | 5.3 | 0.3 | 4.7 | 5.0 |

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

Table 9. Age distribution of black bear checked from DAU 4C^a, 1991-1997.

| Age | 1991 | | 1992 | | 1993 | | 1994 | | 1995 | | 1996 | | 1997 | |
|---------|------|---|------|---|------|---|------|---|------|----|------|---|------|---|
| | 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 |
| Cub | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 | 0 | 0 | 6 | 1 | 4 | 0 | 3 | 2 | 1 | 0 |
| 2 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 0 |
| 3 | 3 | 1 | 0 | 1 | 2 | 1 | 3 | 1 | 3 | 3 | 3 | 2 | 3 | 1 |
| 4 | 1 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 6 | 2 |
| 5 | 0 | 0 | 3 | 0 | 1 | 0 | 1 | 2 | 2 | 0 | 3 | 0 | 3 | 0 |
| 6 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 2 | 0 |
| 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| 8 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 9 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 10+ | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 1 | 3 | 1 | 1 |
| Total | 9 | 4 | 8 | 4 | 9 | 6 | 18 | 8 | 18 | 11 | 18 | 9 | 18 | 5 |

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

Table 10. Values of the 1992-2000 management plan criteria for DAU 4C, 1985-1997.

| 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 |
| 1995-1997 Average | 26.3 | 30.4 | 4 | *4 | *4 |
| Desired Levels | | ≤35 | ≥4 years | ≥6 years | ≥5 years |

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

Table 11. Method of harvest of black bear taken in DAU 4C (Units 60, 61^a, 62^a, and 62A^a), 1987-1997.

| 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 |

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

Table 12. Weapon type used to harvest black bear in DAU 4C, (Units 60, 61, 62, and 62A), 1987-1997.

| Year | Rifle | | Archery | | Muzzleloader | | 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 |

Table 13. Bait station survey results from Unit 66A and 76 routes (DAU 4D).

| Year | Survey Number | Survey Dates | Total Trans. Avail. | Total Trans. Sampled | Total Stations Sampled | Total Stations Visited by Bear | 90% Confidence Interval (+ / -) |
|-----------|---------------|--------------|---------------------|----------------------|------------------------|--------------------------------|---------------------------------|
| 1985-1991 | None | | | | | | |
| 1992 | 1 | 6/24-7/11 | 16 | 16 | 94 | 0 | 0.0 |

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

| Year | Spring | | | Fall | | | Entire Season | | |
|----------------------|--------|--------|-------|------|--------|-------|---------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1985 | 11 | 9 | 20 | 1 | 8 | 9 | 12 | 17 | 29 |
| 1986 | 16 | 13 | 29 | 5 | 3 | 8 | 21 | 16 | 37 |
| 1987 | 11 | 11 | 22 | 4 | 6 | 10 | 15 | 17 | 32 |
| 1988 | 6 | 5 | 11 | 6 | 4 | 10 | 12 | 9 | 21 |
| 1989 | 12 | 8 | 20 | 3 | 11 | 14 | 15 | 19 | 34 |
| 1990 | 21 | 9 | 30 | 6 | 3 | 9 | 26 | 12 | 38 |
| 1991 | 9 | 8 | 17 | 5 | 4 | 9 | 14 | 12 | 26 |
| 1992 | 9 | 4 | 13 | 6 | 6 | 12 | 15 | 10 | 25 |
| 1993 | 8 | 4 | 12 | 7 | 4 | 11 | 15 | 8 | 23 |
| 1994 | 10 | 3 | 13 | 5 | 6 | 11 | 15 | 9 | 24 |
| 1995 | 5 | 3 | 8 | 7 | 2 | 9 | 12 | 5 | 17 |
| 1996 | 13 | 4 | 17 | 5 | 7 | 12 | 18 | 11 | 29 |
| 1994-1996 Average | 9.3 | 3.3 | 12.7 | 5.7 | 5.0 | 10.7 | 15.0 | 8.3 | 23.3 |
| 1997 | 18 | 5 | 23 | 9 | 6 | 15 | 27 | 11 | 38 |
| Difference | -8.7 | -1.7 | -10.3 | -3.3 | -1.0 | -4.3 | -12.0 | -2.7 | -14.7 |

^a Includes Game Management Units 64, 65, 66, 66A, 67, 69, and 76.

Table 15. Age distribution of black bear checked from DAU 4D^a, 1991-1997.

| Age | 1991 | | 1992 | | 1993 | | 1994 | | 1995 | | 1996 | | 1997 | |
|---------|------|----|------|----|------|---|------|---|------|---|------|----|------|----|
| | 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 |
| Cub | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| 1 | 2 | 1 | 2 | 1 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 2 | 1 |
| 2 | 3 | 2 | 5 | 2 | 3 | 4 | 5 | 2 | 2 | 2 | 7 | 1 | 8 | 0 |
| 3 | 3 | 2 | 3 | 0 | 0 | 1 | 5 | 3 | 5 | 2 | 3 | 2 | 3 | 3 |
| 4 | 3 | 0 | 0 | 1 | 3 | 0 | 2 | 1 | 0 | 0 | 2 | 1 | 4 | 3 |
| 5 | 1 | 1 | 1 | 3 | 2 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 3 | 0 |
| 6 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 2 |
| 7 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| 8 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| 10+ | 0 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| Total | 14 | 12 | 15 | 10 | 15 | 9 | 15 | 9 | 12 | 5 | 17 | 11 | 27 | 11 |

^a Includes Game Management Units 64, 65, 66, 66A, 67, 69, and 76.

Table 16. Values of the 1992-2000 management plan criteria for DAU 4D, 1985-1997.

| 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 | 4 | *2 | *4 |
| 1994 | 24 | *38 | *2 | *3 | *3 |
| 1995 | 17 | 29 | *3 | *2 | *3 |
| 1996 | 28 | *39 | *3 | *3 | *3 |
| 1997 | 38 | 29 | *3 | *4 | *4 |
| 1995-1997 Average | 27.7 | 32.5 | *3 | *3 | *3 |
| Desired Levels | | ≤35 | ≥4 years | ≥6 years | ≥5 years |

* 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 4D (Units 64, 65, 66, 66A, 67, 69, and 76), 1987-1997.

| 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 |

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), 1987-1997.

| Year | Rifle | | Archery | | Muzzleloader | | 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 |

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE: Idaho **JOB TITLE:** Black Bear Surveys and Inventories
PROJECT: W-170-R-22
SUBPROJECT: 7 **STUDY NAME:** Big Game Population Status, Trends,
Utilization and Associated Habitat
Studies
STUDY: I
JOB: 9
PERIOD COVERED: July 1, 1997 to June 30, 1998

BLACK BEAR - SALMON REGION

ABSTRACT

The Salmon Region is responsible for DAUs 1I, 1J, and 4E. During 1994, 175 black bears were checked from these DAUs, which was 51% higher than the 1991-1993 average (116) and the highest harvest in at least a decade. Most of this increase came during the fall harvest. The 1995 harvest was down slightly to 159 black bears, but not as much as expected for a wet year. Conversely, the 1996 harvest of 106 black bears was less than expected for a dry year. The 1997 harvest of 106 black bears was 14% lower than the 1995-1997 average (124). Depredation complaints reached an all-time high in 1994, totaling 64 complaints compared to 2 to 30 complaints in prior years. Eight complaints were received in 1995, 14 complaints in 1996, and 0 complaints in 1997. Hound hunters take more black bears than any other hunt method (averaging 37 black bears per year), followed by incidental hunters, with still hunters taking the fewest animals (averaging 25 black bears per year.) Bait and hound hunters appear to be much more selective in the animals they take (29% females) compared to still and incidental hunters (41% females). Black bear harvest age structure and sex composition has been stable to declining in DAU 1I, and declining in DAU 1J and DAU 4E. These units should be closely monitored to determine if this is a true long-term downward trend. If so, management changes may be warranted in DAU 1J and 4E.

AREA 1

DAU 1I (GMUs 34, 35, 36)

MANAGEMENT DIRECTION

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

BACKGROUND

DAU 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 1.

This area is characterized by high snowfall and cold winter temperatures. Summer 1997 was characterized by slightly below normal precipitation, with near normal temperatures. Fall 1997 received below normal precipitation, with near normal temperatures.

POPULATION SURVEYS

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

HARVEST CHARACTERISTICS

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

DEPREDATIONS

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

MANAGEMENT IMPLICATIONS

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

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

MANAGEMENT DIRECTION

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

BACKGROUND

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

DAU 1J includes Units 21, 21A, 28, and 36B. These units contain some of the best black bear habitat in the Salmon Region. However, hunter access is also good over much of this DAU, so black bear harvest rates are comparatively high. Annual harvests vary considerably due to weather fluctuations; snow melt patterns in the spring, and summer drought which can concentrate black bears along accessible riparian areas in the fall. Black bear season structure is reported in Table 1.

Summer 1997 was warm and wet, with normal temperatures and above normal June-September precipitation.

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

POPULATION SURVEYS

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

HARVEST CHARACTERISTICS

The 1995-1997 average black bear check was 61 black bears per year (range=55 to 76) (Table 7). For the 1993-95 and 1995-97 period, percent female black bears, median age of females, and median age of all harvested black bears were below the desired level (Tables 8 and 9). Part of the decrease may be related to female and young vulnerability during dry years. The total 1997 black bear check was only 53 black bears, not unexpected for a wet year when harvest usually decreases. Over the last ten years, the bait and hound hunter harvest has averaged 28% females compared to the still hunter harvest of 37% females and incidental hunter harvest averaging 44% females (Table 10). Most black bears are taken by rifle (Table 11).

DEPREDATIONS

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

MANAGEMENT IMPLICATIONS

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

AREA 4

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

MANAGEMENT DIRECTION

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

BACKGROUND

DAU 4E includes Units 29, 30, 30A, 36A, 37, and 37A. These units generally are characterized by mountain valleys separated by rugged mountain ranges. Most of the black bear habitat occurs in scattered pockets in the mountains. The valleys are generally agricultural land and contain little suitable black bear habitat except along streams. Black bear populations are very vulnerable to harvest because of limited, often isolated black bear habitats. Both harvest and pursuit-only seasons are currently in effect (Table 1).

POPULATION SURVEYS

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

HARVEST CHARACTERISTICS

The number of black bears checked was relatively stable at 30-36 black bears from 1985 to 1994, with a decrease in 1991 and 1992 (Table 12). Forty black bears were harvested in 1995, but only 27 black bears in 1996. Thirty black bears were harvested in 1997. Although the harvest sex and age structure improved in 1995, the 1993-1995 harvest sex and age structure averages fell below criteria on all values. The 1995-1997 averages also fell below criteria, except male median age. As in other DAUs, the bait and hound hunter harvest is composed of a lower proportion of females (28%) compared to still hunters (47%) or incidental hunters (39%) (Table 15). Most black bears harvested are taken by rifle (Table 16).

DEPREDACTIONS

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

MANAGEMENT IMPLICATIONS

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

Table 1. Summary of Seasons by Method for DAUs 1I, 1J, and 4E, July 1, 1997-June 30, 1998.

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

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

Table 2. Black bear harvest by season and sex of bear taken in DAU 1I^a since 1988.

| Year | Spring | | | Fall | | | Entire Season | | |
|------------|--------|--------|-------|------|--------|-------|---------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1988 | 9 | 1 | 10 | 9 | 4 | 13 | 18 | 5 | 23 |
| 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 |
| 1995-97 | | | | | | | | | |
| Average | 9 | 5 | 14 | 11 | 5 | 16 | 20 | 10 | 30 |
| 1997 | 8 | 5 | 13 | 7 | 3 | 10 | 15 | 8 | 23 |
| Difference | -1 | 0 | -3 | -4 | -2 | -6 | -5 | -2 | -7 |

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

Table 3. Age distribution of black bear checked from DAU 1I^a.

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

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

Table 4. Values of the 1992-2000 management plan criteria for DAU 1I, 1988-97.

| Year | N | % Females | Median Age | | |
|---------------------|----|-----------|------------|---------|-------|
| | | | Males | Females | Total |
| 1988 | 24 | *21 | 5 | 7 | 5 |
| 1989 | 26 | *38 | 6 | 6 | 6 |
| 1990 | 42 | 26 | 6 | 8 | 7 |
| 1991 | 28 | 29 | 8 | *5 | 7 |
| 1992 | 28 | 21 | 4 | 6 | 5 |
| 1993 | 40 | *43 | 6 | *5 | 6 |
| 1994 | 57 | *40 | 4 | *4 | *4 |
| 1995 | 43 | 35 | 5 | 8 | 5 |
| 1996 | 24 | 29 | 4 | 6 | *4 |
| 1997 | 23 | 35 | 4 | *5 | *4 |
| 1995-97 Average | 38 | 33 | 4 | *5 | *4 |
| (Desired Levels) | | ≤35 | ≥4 | ≥6 | ≥5 |

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

Table 5. Method of harvest of black bear taken in DAU 1I (Units 34, 35, and 36), 1988-97.

| 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 |
| 1988 | 6 | 0 | 4 | 0 | 3 | 2 | 5 | 3 | 0 | 0 | 18 | 5 |
| 1989 | 2 | 0 | 6 | 2 | 3 | 1 | 5 | 5 | 0 | 1 | 16 | 9 |
| 1990 | 11 | 2 | 7 | 1 | 6 | 2 | 7 | 6 | 0 | 0 | 31 | 11 |
| 1991 | 6 | 3 | 7 | 2 | 2 | 0 | 3 | 1 | 1 | 1 | 19 | 7 |
| 1992 | 7 | 1 | 6 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 15 | 4 |
| 1993 | 8 | 5 | 6 | 2 | 3 | 4 | 5 | 5 | 2 | 1 | 24 | 17 |
| 1994 | 7 | 5 | 7 | 4 | 9 | 6 | 9 | 7 | 0 | 0 | 32 | 22 |
| 1995 | 6 | 2 | 3 | 5 | 3 | 3 | 14 | 5 | 0 | 0 | 26 | 15 |
| 1996 | 7 | 2 | 3 | 1 | 0 | 2 | 7 | 2 | 0 | 0 | 17 | 7 |
| 1997 | 5 | 2 | 4 | 0 | 2 | 3 | 4 | 3 | 0 | 0 | 15 | 8 |

Table 6. Weapon type used to harvest black bear in DAU 1I (Units 34, 35, and 36), 1988-97.

| 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 |
| 1988 | 11 | 4 | 6 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 18 | 5 |
| 1989 | 9 | 8 | 5 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 16 | 10 |
| 1990 | 13 | 9 | 15 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 30 | 11 |
| 1991 | 7 | 1 | 9 | 3 | 0 | 1 | 3 | 1 | 0 | 0 | 19 | 6 |
| 1992 | 11 | 3 | 4 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 18 | 5 |
| 1993 | 15 | 16 | 4 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 23 | 17 |
| 1994 | 24 | 19 | 4 | 3 | 0 | 0 | 4 | 1 | 1 | 0 | 33 | 23 |
| 1995 | 20 | 11 | 3 | 2 | 0 | 0 | 4 | 2 | 0 | 0 | 27 | 15 |
| 1996 | 12 | 6 | 1 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 17 | 7 |
| 1997 | 12 | 6 | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 15 | 8 |

Table 7. Black bear harvest by season and sex of bear taken in DAU 1J^a since 1988.

| Year | Spring | | | Fall | | | Entire Season | | |
|--------------------|--------|--------|-------|------|--------|-------|---------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 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 |
| 1995-97 Average | 23 | 13 | 36 | 15 | 10 | 25 | 38 | 24 | 61 |
| 1997 | 19 | 11 | 30 | 12 | 11 | 23 | 31 | 22 | 53 |
| Difference | -4 | -2 | -6 | -3 | +1 | -2 | -7 | -2 | -8 |

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

Table 8. Age distribution of black bear checked from DAU 1J^a.

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

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

Table 9. Values of the 1992-2000 management plan criteria for DAU 1J, 1988-97.

| Year | N | % Females | Median Age | | |
|---------------------|----|-----------|------------|---------|-------|
| | | | Males | Females | Total |
| 1988 | 76 | *37 | *3 | *4 | *4 |
| 1989 | 40 | 32 | 4 | *4 | *4 |
| 1990 | 72 | *44 | 4 | 6 | *4 |
| 1991 | 70 | *37 | 5 | 6 | 5 |
| 1992 | 47 | 28 | 5 | 6 | 6 |
| 1993 | 66 | 27 | *3 | *5 | *4 |
| 1994 | 82 | 30 | 4 | *5 | *4 |
| 1995 | 76 | *49 | 4 | *4 | *4 |
| 1996 | 55 | 22 | 4 | *4 | *4 |
| 1997 | 53 | *42 | 5 | *4 | 5 |
| 1995-97 Average | 61 | *39 | 4 | *4 | *4 |
| (Desired Levels) | | ≤35 | ≥4 | ≥6 | ≥5 |

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

Table 10. Method of harvest of black bear taken in DAU 1J (Units 21, 21A, 28, and 36B), 1988-97.

| Year | Bait | | Hound | | Still | | Incidental | | Other | | Total | |
|------|------|---|-------|----|-------|---|------------|----|-------|---|-------|----|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| 1988 | 4 | 3 | 14 | 3 | 12 | 4 | 15 | 17 | 1 | 0 | 46 | 27 |
| 1989 | 4 | 1 | 11 | 3 | 7 | 7 | 5 | 2 | 0 | 0 | 27 | 13 |
| 1990 | 7 | 3 | 15 | 10 | 10 | 6 | 7 | 10 | 0 | 4 | 39 | 29 |
| 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 |

Table 11. Weapon type used to harvest black bear in DAU 1J (Units 21, 21A, 28, and 36B), 1988-97.

| Year | Rifle | | Archery | | Muzzleloader | | Pistol | | Other | | Total | |
|------|-------|----|---------|---|--------------|---|--------|---|-------|---|-------|----|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| 1988 | 39 | 24 | 6 | 1 | 0 | 0 | 2 | 3 | 0 | 0 | 47 | 28 |
| 1989 | 16 | 11 | 5 | 2 | 0 | 0 | 6 | 0 | 0 | 0 | 27 | 13 |
| 1990 | 28 | 25 | 7 | 1 | 1 | 0 | 3 | 5 | 0 | 1 | 39 | 32 |
| 1991 | 30 | 19 | 4 | 4 | 0 | 0 | 8 | 3 | 2 | 0 | 44 | 26 |
| 1992 | 20 | 7 | 8 | 2 | 1 | 0 | 5 | 4 | 0 | 0 | 34 | 13 |
| 1993 | 41 | 12 | 5 | 1 | 0 | 0 | 1 | 5 | 1 | 0 | 48 | 18 |
| 1994 | 40 | 20 | 9 | 4 | 0 | 0 | 7 | 1 | 0 | 0 | 56 | 25 |
| 1995 | 32 | 27 | 4 | 6 | 0 | 0 | 2 | 3 | 0 | 1 | 38 | 37 |
| 1996 | 35 | 11 | 6 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 43 | 12 |
| 1997 | 26 | 16 | 4 | 4 | 1 | 0 | 0 | 2 | 0 | 0 | 31 | 22 |

Table 12. Black bear harvest by season and sex of bear taken in DAU 4E^a since 1988.

| Year | Spring | | | Fall | | | Entire Season | | |
|--------------------|--------|--------|-------|------|--------|-------|---------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 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 |
| 1995-97 Average | 17 | 6 | 23 | 4 | 5 | 9 | 21 | 12 | 32 |
| 1997 | 18 | 8 | 26 | 1 | 3 | 4 | 19 | 11 | 30 |
| Difference | +1 | +2 | +3 | -3 | -2 | -5 | -2 | -1 | -2 |

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

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

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

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

Table 14. Values of the 1992-2000 management plan criteria for DAU 4E, 1988-97.

| Year | N | % Females | Median Age | | |
|---------------------|----|-----------|------------|---------|-------|
| | | | Males | Females | Total |
| 1988 | 32 | 25 | 4 | *5 | *4 |
| 1989 | 30 | 33 | 4 | *4 | *4 |
| 1990 | 32 | 25 | 4 | *2 | *4 |
| 1991 | 24 | *50 | *2 | 8 | 5 |
| 1992 | 14 | 29 | 6 | 6 | 6 |
| 1993 | 31 | 29 | *3 | *3 | *3 |
| 1994 | 36 | *42 | *2 | *4 | *4 |
| 1995 | 40 | 35 | 4 | *4 | *4 |
| 1996 | 27 | *37 | 4 | *4 | *4 |
| 1997 | 30 | *37 | 4 | *5 | *4 |
| 1995-97 Average | 33 | *37 | 4 | *4 | *4 |
| (Desired Levels) | | ≤35 | ≥4 | ≥6 | ≥5 |

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

Table 15. Method of harvest of black bear taken in DAU 4E (Units 29, 30, 30A, 36A, 37, and 37A), 1988-97.

| Year | Bait | | Hound | | Still | | Incidental | | Other | | Total | |
|------|------|---|-------|---|-------|---|------------|---|-------|---|-------|----|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| 1988 | 5 | 2 | 7 | 3 | 3 | 2 | 8 | 1 | 0 | 0 | 23 | 8 |
| 1989 | 7 | 1 | 8 | 5 | 3 | 1 | 2 | 3 | 0 | 0 | 20 | 10 |
| 1990 | 9 | 3 | 8 | 3 | 5 | 1 | 2 | 1 | 0 | 0 | 24 | 8 |
| 1991 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 2 | 0 | 0 | 12 | 11 |
| 1992 | 3 | 1 | 5 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 10 | 3 |
| 1993 | 4 | 5 | 5 | 0 | 1 | 2 | 12 | 2 | 0 | 0 | 22 | 9 |
| 1994 | 2 | 2 | 10 | 4 | 3 | 5 | 5 | 4 | 1 | 0 | 21 | 15 |
| 1995 | 8 | 2 | 10 | 2 | 3 | 3 | 5 | 7 | 0 | 0 | 26 | 14 |
| 1996 | 5 | 3 | 6 | 0 | 4 | 3 | 2 | 3 | 0 | 0 | 17 | 9 |
| 1997 | 4 | 5 | 12 | 1 | 1 | 1 | 2 | 4 | 0 | 0 | 19 | 11 |

Table 16. Weapon type used to harvest black bear in DAU 4E (Units 29, 30, 30A, 36A, 37 and 37A), 1988-97.

| Year | Rifle | | Archery | | Muzzleloader | | Pistol | | Other | | Total | |
|------|-------|----|---------|---|--------------|---|--------|---|-------|---|-------|----|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| 1988 | 11 | 4 | 7 | 3 | 0 | 0 | 6 | 1 | 0 | 0 | 24 | 8 |
| 1989 | 12 | 6 | 5 | 3 | 0 | 0 | 2 | 1 | 0 | 0 | 19 | 10 |
| 1990 | 9 | 6 | 9 | 0 | 0 | 0 | 6 | 2 | 0 | 0 | 24 | 8 |
| 1991 | 9 | 7 | 2 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 12 | 11 |
| 1992 | 8 | 1 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 10 | 3 |
| 1993 | 15 | 6 | 3 | 3 | 0 | 0 | 4 | 0 | 0 | 0 | 22 | 9 |
| 1994 | 16 | 9 | 5 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 21 | 15 |
| 1995 | 17 | 11 | 6 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 26 | 14 |
| 1996 | 13 | 10 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 17 | 10 |
| 1997 | 13 | 8 | 3 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 19 | 11 |

Table 17. Black bear depredation complaints handled in the Salmon Region, 1988-97.

| DAU | Year | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|
| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
| 1I | 5 | 2 | 11 | 7 | 8 | 22 | 11 | ? | ? | ? |
| 1J | 4 | 0 | 7 | 1 | 1 | 5 | 33 | 6 | 12 | 0 |
| 4E | 3 | 0 | 0 | 0 | 0 | 3 | 20 | 1 | 0 | 0 |
| Total | 12 | 2 | 18 | 8 | 9 | 30 | 64 | 8 | 14 | 0 |

Submitted by:

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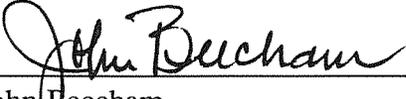
Randall Smith
Regional Wildlife Manager

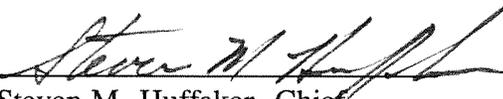
Mike Scott
Regional Wildlife Manager

Steve Nadeau
Regional Wildlife Habitat Biologist

David Koehler
Regional Wildlife Biologist

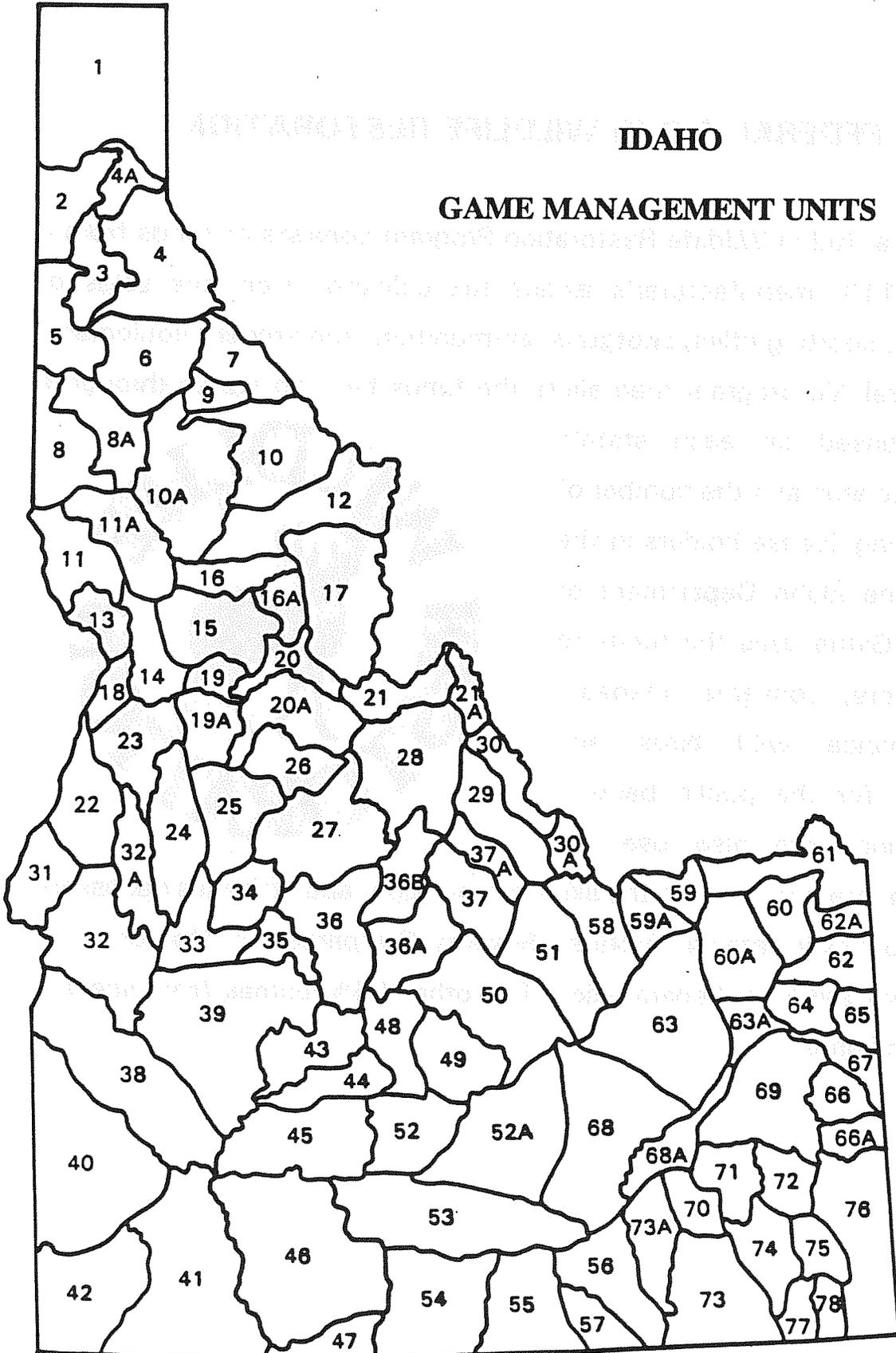
Approved by: IDAHO DEPARTMENT OF FISH AND GAME


John Beecham
Wildlife Game and Research Manager
Federal Aid Coordinator


Steven M. Huffaker, Chief
Bureau of Wildlife

IDAHO

GAME MANAGEMENT UNITS



FEDERAL AID IN WILDLIFE RESTORATION

The Federal Aid in Wildlife Restoration Program consists of funds from a 10% to 11% manufacturer's excise tax collected from the sales 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.

