

**IDAHO DEPARTMENT OF FISH AND GAME**

**Steven M. Huffaker, Director**

**Project W-170-R-27**

**Progress Report**



**MOUNTAIN GOAT**

Study I, Job 5

July 1, 2002 to June 30, 2003

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**PROGRESS REPORT  
SURVEYS AND INVENTORY**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mountain Goat Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-27</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>1-7</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>5</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 2002 to June 30, 2003</u>		

**STATEWIDE**

**ABSTRACT**

In 2002, the Idaho Department of Fish and Game identified 16 controlled hunts for mountain goats, offering a total of 48 permits for mountain goat hunters. Following aerial surveys in 2001, hunt 5016 in Unit 59A (6 permits) was closed on an emergency basis. The 47 hunters harvested 41 mountain goats for a harvest success rate of 87%, as compared with success rates of 89% in 2001 and 2000, 86% in 1999, and 84% in 1998.

Mountain goat permits are highly sought by sportsmen. Nonresident hunters may compete with resident hunters for mountain goat permits, but are limited to successfully drawing no more than one permit per hunt, and no more than 10% of the total number of permits available each season.

The total number of first-choice applications received for mountain goat permits was 466, similar to the 431 applications received in 2001, but down from 509 first-choice applicants for mountain goat permits in 2000 and 486 in 1999. All permits were awarded to first-choice applicants, for a success rate of 10% as compared with 12% in 2001, 11% in 2000, 11.5% in 1999, and 12.3% in 1998. Nonresident hunters, who comprised 12% of the applicant pool (58 of 466) were successful in drawing 4 permits.

Mountain goat populations in Idaho are often comprised of small, widely-scattered groups, typical of a species at the southern extent of its range. In eastern Idaho, a number of populations appear to be experiencing significant declines. As indicated, hunt 5016 in Game Management Units 59 and 59A was closed after the 2001 season when an aerial survey of mountain goats revealed a significant decline in area mountain goat herds. This area was re-surveyed in 2002, and the count was similar to that recorded in 2001.

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<b>JOB:</b>	<u>5</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 2002 to June 30, 2003</u>		

**PANHANDLE REGION**

**ABSTRACT**

Mountain goats are not hunted in Idaho's panhandle because populations do not meet management criteria set in the current mountain goat management plan. No aerial surveys were conducted during this reporting period to assess regional mountain goat populations.

**UNITS 1, 4A, 9**

Management Direction

The Statewide Management Policy for Mountain Goats is to introduce mountain goats into all suitable ranges, maintain or increase all herds, and harvest under a conservative management framework. Harvest is allowed if the total population is at least 50 mountain goats. Harvest shall not exceed 5% of the adult segment of the population except during periods of high recruitment, usually during the early phases of a newly introduced population.

The Pend Oreille population of Unit 4A is specifically identified as having nonconsumptive values, with wildlife viewing as the primary focus of this population. The population in the Little North Fork of the Clearwater River is specifically identified for use as a transplant source rather than management for harvest. Selkirk and West Cabinet herds are currently below population levels established as criteria to allow hunting.

Background

Three native populations (Selkirk, West Cabinets, and Little North Fork of the Clearwater River) and one introduced population (Pend Oreille) of mountain goats inhabit the Panhandle Region. All populations are small, and no hunting is currently allowed on any of these populations. The Pend Oreille population of mountain goats has a particularly high public value for watchable wildlife, with excellent access by boat to this year-long, low elevation range.

Anecdotal information indicates that mountain goat populations in the Panhandle had dropped substantially prior to 1950. Brandborg (1955) cites personal communications of Forest Service

employees in the Selkirk Range who specifically noted a drop in numbers and restriction in distribution during the 1928-1950 period.

Brandborg attributed these declines to increased access to mountain goat habitat, and implicated unregulated hunting. By 1950, general mountain goat seasons were reduced to just 11 days during September. Controlled hunts were used 1952-1955, and 1966-1976, when most mountain goat hunting was closed in the Panhandle. Since then, the allowable mountain goat harvest in the Panhandle Region has ranged from zero to two mountain goats annually. However, 57 mountain goats have been transplanted out of the Panhandle Region since 1961 (Hayden and Spicer 1993).

### Population Surveys

No population surveys were conducted on mountain goat populations during this report period.

In 2001, observations in the Selkirk Mountains (Table 1) were similar to those of the prior (1995) flights, although numbers of adults was slightly lower, and number of kids slightly higher. There has been a near complete loss of mountain goats in the southern and eastern portions of the Selkirk Mountains. Most of the recent population increase is attributable to transplants into the Selkirk Mountains. Subsequent to a count of only three mountain goats in the Selkirk Mountains in 1981, a total of 28 mountain goats were transplanted into this range, primarily from Snow Peak. Recent growth of this population is evident in the release areas.

Idaho includes the minor portion of mountain goat range in the West Cabinet Mountains. Here, counts can be substantially affected by localized movements across state and drainage borders, and the main value in surveys is assessing occupancy of winter range and general recruitment trends. A decline of mountain goats in the Wiggletail/Blue Creek areas and a decline in recruitment is apparent and of concern (Table 1).

The Pend Oreille mountain goat population may be experiencing some growth despite low winter recruitment (Table 2). The numbers remain, however, about 60% of those estimated in the mid-1980s. The Green Monarchs, the original transplant site proposed, is essentially devoid of mountain goats, with only occasional sightings.

Mountain goat numbers in the Little North Fork of the Clearwater River have changed little over the past 40 years (Table 3), despite removal of 88 mountain goats since 1960. However, there has been a noticeable change in distribution, with far fewer mountain goats near the trap site (Snow Peak on Canyon Creek) and more in the nearby Foehl Creek drainage.

### Management Implications

Regionally, mountain goat numbers are showing an improvement, but progress is slow (Figure 1). Current numbers are likely at least 50% lower than 40-50 years ago, and may be considerably worse when compared to the early 1900s.

Given the successful reestablishment of mountain goats in the Selkirk Mountains where transplants occurred, it may be desirable to transplant additional mountain goats into isolated areas that have been uninhabited by mountain goats for several decades, particularly the

Parker/Canyon Creek, Pack/Myrtle Creek, and Indian/Two Mouth Creek areas. Foehl Creek should be investigated as a potential transplant source to supplement trapping on Snow Peak.

#### **LITERATURE CITED**

Brandborg, S. M. 1955. Life history and management of the mountain goat in Idaho. Wildlife Bulletin No. 2. Idaho Department of Fish and Game, Boise, Idaho, USA.

Hayden, J., and D. Spicer. 1993. Pages 3-16 in L.E. Oldenburg (ed.) Mountain Goat. Job Progress Report W-170-R-17. Idaho Department of Fish and Game, Boise, Idaho, USA.

Table 1. Summary of mountain goat surveys in Unit 1, 1955-present.

Inclusive Location	Year	Adults	Kids	Unknown	Total	Kids/100 Adults
Selkirk Range, Unit 1						
Smith to Parker Creek	1955 <sup>a</sup>	0	0	65	65	-
	1963	15	3	0	18	20.0
	1971	0	0	0	0	0.0
	1981	0	0	0	0	0.0
	1988	0	0	0	0	0.0
	1991	2	1	0	3	50.0
	1995	0	0	0	0	0.0
	2001	0	0	0	0	0.0
Fisher to Farnham Creek	1955 <sup>a</sup>	0	0	0	0	0.0
	1963 <sup>c</sup>	0	0	0	0	0.0
	1971	0	0	0	0	0.0
	1981	0	0	0	0	0.0
	1988	0	0	0	0	0.0
	1991	0	0	0	0	0.0
	1995	3	0	0	3	0.0
	2001	6	1	0	7	16.7
Indian to Two Mouth Creek	1955 <sup>a</sup>	0	0	50	50	-
	1963	5	1	0	6	20.0
	1971	0	0	3	3	-
	1981	0	0	0	0	0.0
	1988	1	1	0	2	100.0
	1991	0	0	0	0	0.0
	1995	0	0	0	0	0.0
	2001	0	0	0	0	0.0
Lion Creek	1955 <sup>a</sup>	0	0	35	35	-
	1963	0	0	0	0	0.0
	1971	0	0	0	0	0.0
	1981	0	0	3	3	-
	1988	4	2	0	6	50.0
	1991	9	1	0	10	11.1
	1995	13	0	0	13	0.0
	2001	5	1	0	6	20.0
Caribou Creek	1955 <sup>a</sup>	0	0	55	55	-
	1963	9	2	0	11	22.2
	1971	0	0	0	0	0.0
	1981	0	0	0	0	0.0
	1988	6	2	0	8	33.3
	1991	2	0	0	2	0.0
	1995	14	3	0	17	21.4
	2001	15	6	0	21	40.0
Total Selkirk Population	1955 <sup>a</sup>	0	0	195	195 <sup>b</sup>	-
	1963	29	6	0	35	20.7
	1971	0	0	3	3	-
	1981	0	0	3	3	-
	1988	11	5	0	16	45.5
	1991	13	2	0	15	15.4

Table 1. Continued.

Inclusive Location	Year	Adults	Kids	Unknown	Total	Kids/100 Adults
	1995	30	3	0	33	10.0
	2001	26	8	0	34	30.8
West Cabinet Range, Unit 1						
Wiggletail to W. Fk. Blue Cr.	1971	0	0	0	0	0.0
	1979 <sup>d</sup>	9	2	0	11	22.2
	1981	0	0	0	0	0.0
	1988	23	1	0	24	4.3
	1991	11	1	0	12	9.1
	1993	11	2	0	13	18.2
	1998 <sup>c</sup>	11	3	0	14	27.3
	2001	3	0	0	3	0.0
Regal to Sam Morris Creek	1971	0	0	0	0	0.0
	1981	0	0	0	0	0.0
	1988	0	0	0	0	0.0
	1991	0	0	0	0	0.0
	1993	2	0	0	2	0.0
	1998 <sup>e</sup>	5	0	0	5	0.0
	2001	2	0	0	2	0.0
East Fork Lightning Creek (Includes Savage and Char)	1971	0	0	5	5	-
	1981	3	0	0	3	0.0
	1988	20	3	0	23	15.0
	1991	4	3	0	7	75.0
	1993	12	5	0	17	41.7
	1998 <sup>e</sup>	11	1	0	12	9.1
	2001	9	1	0	10	11.1
West Cabinet (Idaho Only)	1971	0	0	5	5	-
	1981	3	0	0	3	0.0
	1988	43	4	0	47	9.3
	1991	15	4	0	19	26.7
	1993	25	7	0	32	28.0
	1998 <sup>e</sup>	27	4	0	31	14.8
	2001	14	1	0	15	7.1

<sup>a</sup> Summer estimates from ground surveys.

<sup>b</sup> Includes 20 mountain goats estimated in the Pack River-Myrtle Creek area and 10 mountain goats on Snowytop Mountain. Both areas were flown 1971 and 2001 winters with neither tracks nor mountain goats observed. The Pack River-Myrtle Creek area was flown winters 1963 and 1981, as well, with no tracks nor mountain goats observed.

<sup>c</sup> Not specifically mentioned in the survey.

<sup>d</sup> Montana Fish, Wildlife and Parks data, August survey.

<sup>e</sup> August survey of summer range.

Table 2. Summary of mountain goat surveys in Unit 4A, 1973-present.

Inclusive Location	Year	Adults	Kids	Unknown	Total	Kids/100 Adults
Pend Oreille Population, Unit 4A						
Buttonhook to Lakeside	1973	11	3	0	14	27.3
	1975 <sup>a</sup>	31	12	0	43	38.7
	1976	16	3	0	19	18.8
	1981	30	7	0	37	23.3
	1985 <sup>b</sup>	42	10	0	52	23.8
	1991	9	4	0	13	44.4
	1991 <sup>c</sup>	11	7	0	18	63.6
	1992	15	2	0	17	13.3
	1995 <sup>d</sup>	13	2	0	15	15.4
	2001	27	4	0	31	14.8
Green Monarchs	1973	2	0	0	2	0.0
	1975 <sup>a</sup>	0	0	0	0	0.0
	1976	4	0	0	4	0.0
	1981	2	0	0	2	0.0
	1991	2	0	0	2	0.0
	1991 <sup>c</sup>	0	0	0	0	0.0
	1992	0	0	0	0	0.0
	1995 <sup>d</sup>	0	0	0	0	0.0
	2001	0	0	0	0	0.0
	Pend Oreille Population	1973	13	3	0	16
1975 <sup>a</sup>		31	12	0	43	38.7
1976		20	3	0	23	15.0
1981		32	7	0	39	21.9
1985 <sup>b</sup>		42	10	0	52	23.8
1991		11	4	0	15	36.4
1991 <sup>c</sup>		11	7	0	18	63.6
1992		15	2	0	17	13.3
1995 <sup>d</sup>		13	2	0	15	15.4
2001		27	4	0	31	14.8

<sup>a</sup> Ground survey.

<sup>b</sup> Population estimate based on capture/recapture with ground surveys during spring.

<sup>c</sup> Ground survey during October.

<sup>d</sup> Helicopter survey during August.

Table 3. Summary of mountain goat surveys in Unit 9, 1957-present.

Inclusive Location	Year	Adults	Kids	Unknown	Total	Kids/100 Adults
Little North Fork of the Clearwater River, Unit 9						
Hoodoo Peak to Spotted Louis	1957	2	0	0	2	0.0
	1958	6	0	0	6	0.0
	1961	0	0	0	0	0.0
	1964	2	0	0	2	0.0
	1965	0	0	3	3	-
	1966	0	0	1	1	-
	1971	0	0	3	3	-
	1972	0	0	0	0	0.0
	1976	4	0	0	4	0.0
	1979 <sup>a</sup>	-	-	-	-	-
	1981	4	0	0	4	0.0
	1988	15	5	0	20	33.3
	1991	4	3	0	7	75.0
	1993	3	0	0	3	0.0
	2001	4	2	0	6	50.0
Culdesac to Canyon Creek	1957	53	3	0	56	5.7
	1958	27	6	0	33	22.2
	1961	27	3	0	30	11.1
	1964	41	4	0	45	9.8
	1965	0	0	49	49	-
	1966	0	0	43	43	-
	1971	0	0	29	29	-
	1972	0	0	18	18	-
	1976	24	8	0	32	33.3
	1979 <sup>a</sup>	32	5	0	37	15.6
	1981	48	8	0	56	16.7
	1988	26	2	0	28	7.7
	1991 <sup>b</sup>	13	3	0	16	23.1
	1993	23	8	0	31	34.8
	2001	18	6	0	24	33.3
Sawtooth Creek	1957	26	7	0	33	26.9
	1958	17	4	0	21	23.5
	1961	20	5	0	25	25.0
	1964	12	1	0	13	8.3
	1965	0	0	10	10	-
	1966	0	0	13	13	-
	1971	0	0	4	4	-
	1972	0	0	9	9	-
	1976	8	0	0	8	0.0
	1979 <sup>a</sup>	-	-	-	-	-
	1981	5	0	0	5	0.0
	1988	7	2	0	9	28.6
	1991	9	1	0	10	11.1
	1993	6	2	0	8	33.3
	2001	9	0	0	9	0.0
Foehl Creek	1957	0	0	0	0	0.0
	1958	0	0	0	0	0.0
	1961	9	5	0	14	55.6
	1964	17	0	0	17	0.0
	1965	0	0	7	7	-

Table 3. Continued.

Inclusive Location	Year	Adults	Kids	Unknown	Total	Kids/100 Adults
	1966	0	0	0	0	0.0
	1971	0	0	0	0	0.0
	1972	0	0	2	2	-
	1976	0	0	0	0	0.0
	1979 <sup>a</sup>	-	-	-	-	-
	1981	3	1	0	4	33.3
	1988	5	0	0	5	0.0
	1991	8	2	0	10	25.0
	1993	12	4	0	16	33.3
	2001	16	5	0	21	31.3
Larkin to Devil's Club Creek	1957	2	0	0	2	0.0
	1958	0	0	0	0	0.0
	1961	0	0	0	0	0.0
	1964	0	0	0	0	0.0
	1965	0	0	0	0	0.0
	1966	0	0	0	0	0.0
	1971	0	0	0	0	0.0
	1972	0	0	0	0	0.0
	1976	0	0	0	0	0.0
	1979 <sup>a</sup>	-	-	-	-	-
	1981	0	0	0	0	0.0
	1988	1	0	0	1	0.0
	1991	0	0	0	0	0.0
	1993	1	1	0	2	100.0
	2001	0	0	0	0	0.0
Little North Fork Clearwater Population	1957	83	10	0	93	12.0
	1958	50	10	0	60	20.0
	1961	56	13	0	69	23.2
	1964	72	5	0	77	6.9
	1965	0	0	69	69	-
	1966	0	0	57	57	-
	1971	0	0	36	36	-
	1972	0	0	29	29	-
	1976	36	8	0	44	22.2
	1979 <sup>a</sup>	32	5	0	37	15.6
	1981	60	9	0	69	15.0
	1988	54	9	0	63	16.7
	1991 <sup>b</sup>	34	9	0	43	26.5
	1993	45	15	0	60	33.3
	2001	47	13	0	60	27.7

<sup>a</sup> Area flown only identified as "Snow Peak." It is unknown what area was actually flown.

<sup>b</sup> Weather conditions precluded complete coverage of the Canyon Creek portion of the flight.

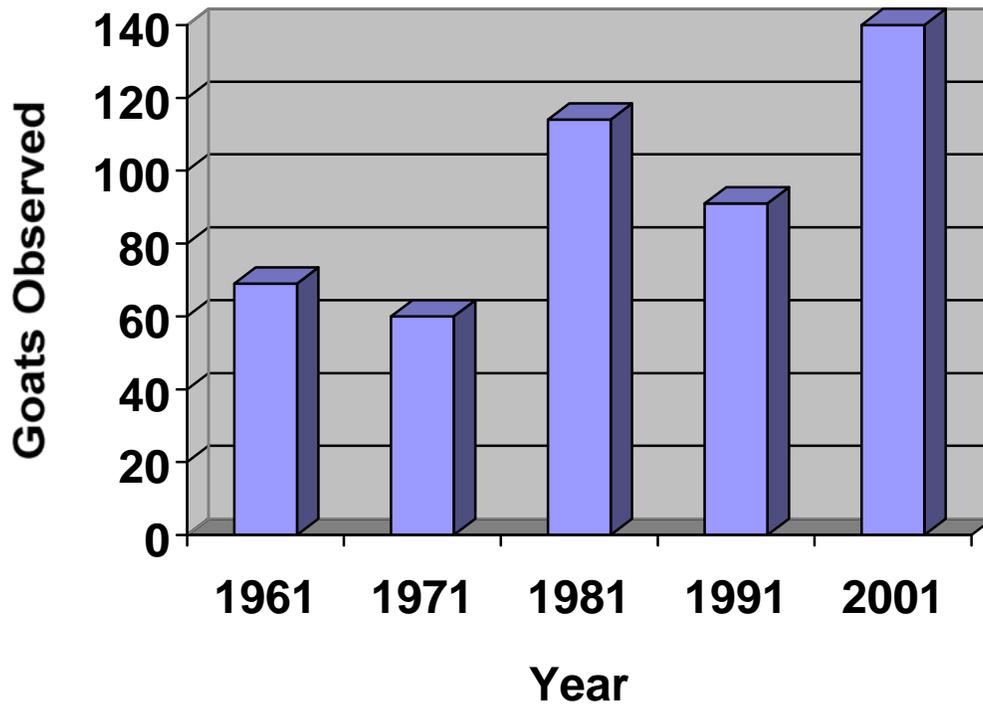


Figure 1. Comparison of aerial surveys for mountain goats in the Panhandle Region, 1961-2001. Note data from 1991 includes only a partial survey of Canyon Creek.

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SURVEYS AND INVENTORY**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mountain Goat Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-27</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>2</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>5</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 2002 to June 30, 2003</u>		

**CLEARWATER REGION**

**ABSTRACT**

Current management direction allows for limited-entry hunting of mountain goats with conservative permit levels. Many of the mountain goat hunt areas in the Clearwater Region remain closed because of low population levels or the loss of mountain goats entirely from previously occupied range. Translocation to reestablish or augment populations in these areas is a high priority. During controlled hunts in 2002, nine permittees harvested seven mountain goats. During previous years, paintball mark-resight surveys revealed populations of  $54 \pm 12$  adult mountain goats in Hunt Area 10-1 and  $44 \pm 5$  adult mountain goats in Hunt Area 10-2. A mark-resight survey in April 2002 revealed  $196 \pm 11$  adult mountain goats in Hunt Area 18. During March 2003, 16 mountain goats were captured in Unit 18 and transplanted into Unit 20 (Sheep Hill).

**UNITS 10, 12, 15, 16, 16A, 17**

**CONTROLLED HUNT AREAS 10-1, 10-2**

A list of controlled hunt units, which were closed prior to 1991, can be found in the Clearwater Region portion of the Department's 1986-1991 Mountain Goat Management Plan.

Management Direction

Goals for managing mountain goats in Units 10, 12, 15, 16, 16A, and 17 include increasing populations through conservative hunting levels, trapping and transplanting into vacant habitat or to augment existing populations, maintaining harvest and recreational opportunity, emphasizing nonconsumptive values, inventorying all mountain goat populations at a maximum interval of five years, and collecting information on mountain goat diseases.

## Background

Historically, mountain goats were hunted on a general-hunt basis in Idaho north of the Salmon River. As a result, some of the easily accessible herds were overhunted or eliminated. From 1966 to present, all mountain goat hunts have been offered as controlled hunts. Hunt areas were originally quite large, often including several discrete populations of mountain goats. In general, the more accessible populations still received the brunt of the harvest. In 1972, the hunts were divided into smaller, more easily manageable units to control and more evenly distribute hunting pressure.

Permit numbers were reduced from 20 hunts with 51 permits in 1977, to three hunts with six permits in 1984, and increased to four hunts with 12 permits in 1989. In 2002, only three hunts with nine permits were offered in the Region (Table 1).

## Population Surveys

Population surveys were not conducted for mountain goats during the reporting period. Units 12 and 17 have not been surveyed since 1996 and 1994, respectively (Tables 2 and 3). During April and May of 2000, we conducted a paintball, mark-resight survey of the Black Mountain (10-1 and 10-2) goat population. The data suggest a significant decline since the last survey in 1996 (Table 4). At that time, we observed 136 mountain goats over both hunt areas and presumably some mountain goats were missed during the survey. Thus, at a minimum, the population declined 27% over four years. Given this trend, the decision was made to continue existing harvest levels, but to suspend transplant removals.

## Harvest Characteristics

Harvest levels have changed little during the last 10-year period. During 2002, three of four permittees were successful in hunts 10-1 and 10-2 (Table 5). Drawing odds for the Unit 10 hunts were 1:19 in 2002, up from an average of 1:12 over the previous 10 years. Unit 12 was closed to mountain goat hunting in 1997 due to the decline in mountain goat numbers revealed by the 1996 survey.

## Trapping and Transplanting

Since 1962, mountain goats have been trapped on Black Mountain (the Clearwater Region) and Snow Peak (the Panhandle Region) to provide stock for transplants within the state. The region began capturing mountain goats in the Seven Devils range in 1999 with helicopter darting. 102 mountain goats have been transplanted at Clearwater Region sites from 1962 to 2002 (Table 6). Plans to trap mountain goats at Black Mountain in 2000 were cancelled because of the population decline revealed by the 2000 survey.

## Habitat Conditions

Mountain goat habitat in Units 10, 12, 15, 16, 16A, and 17 is located mainly along the Idaho-Montana border and in rocky cliffs of the North Fork Clearwater, Lochsa, and Selway river

drainages. Nearly all of the areas that support mountain goats are under U. S. Forest Service (USFS) ownership and management. Some commercial timberlands are located near mountain goat habitat; however, the majority of mountain goat habitat is in designated wilderness.

### Climatic Conditions

The Clearwater Region experienced weather conditions in 2002-2003 that were considered normal. Snowpack in the Clearwater Basin was 97% of average (October through March) while the Salmon River Basin averaged 100% for the same time period. Snowfall was later than usual in the Region with little accumulation at the lower elevations for any duration of time. This allowed big game populations to forage and move easily and probably had a positive effect on big game survival.

### Management Implications

The population decline in hunt areas 10-1 and 10-2 will lead to more conservative and cautious management of exploitation. Current harvest levels (five-year average = 3.5 mountain goats/year) are below the maximum mountain goat management plan level of 5% (five mountain goats). However, it is unlikely that any removal of additional mountain goats for transplants would be practical or prudent. Trapping will be suspended until future surveys reveal a positive growth trend and sufficient numbers to sustain removals. Permit levels in hunt areas 10-1 and 10-2 will remain conservative to avoid over-exploitation.

In other areas, where populations have been severely reduced, hunts will not be offered until those populations recover to satisfactory levels and exhibit an acceptable level of population growth. Translocation into areas where mountain goats are absent or severely reduced in numbers will continue as transplant stock becomes available.

## **UNITS 14, 18, 19 & 20**

### **CONTROLLED HUNT AREA 18**

Hunts were not offered in 2002 in Units 14, 19, and 20. A list of hunts closed prior to 1991 can be found in the Clearwater Region portion of the Department's 1986-1991 Mountain Goat Management Plan.

### Management Direction

Goals for managing mountain goats in Units 14, 18, 19, and 20 include increasing populations through conservative hunting seasons, trapping and transplanting into vacant habitat or to augment existing populations, maintaining harvest and recreational opportunity, emphasizing nonconsumptive values, inventorying all mountain goat populations at a maximum interval of five years, and collecting information on mountain goat diseases.

## Background

Historically, mountain goats were hunted on a general basis in Idaho north of the Salmon River. As a result, some of the easily accessible herds were overhunted or eliminated. From 1966 to present, all mountain goat hunts have been offered as controlled hunts. Units were originally quite large, often including several discrete populations. In general, the more accessible populations still received the brunt of the harvest. In 1972, the hunts were divided into smaller, more easily manageable units to control and more evenly distribute hunting pressure.

## Population Surveys

We conducted a paintball mark-resight survey in Hunt Area 18 (Units 18 and 22) in 2002. On 22 March 2002, we marked 107 goats with orange paintballs fired from a helicopter during 7.3 flight hours. The 107 total included 95 two-year-old and older goats, and 12 apparent yearlings. The 14.7 goats marked/flight hour greatly exceeded previous marking rates in the Seven Devils and at Black Mountain. During 1-2 April 2002, we surveyed Hunt Area 18 in 12.9 flight hours with an additional 2.6 hours of ferry time. We observed 90 goats (15 yearlings and 75 older goats), of which 49 were marked (seven yearlings and 42 older goats). This led to an estimate of  $196 \pm 22$  (90% Bound) goats in Hunt Area 18, suggesting a potential increase in abundance from the 1999 estimate of  $171 \pm 48$  (Table 7). However, the 1999 estimate was imprecise, and there was concern over potential bias caused by questionable ability to identify marks. The Hunt Area 18 trend remains questionable.

Units 19 and 20 have not been surveyed since 1993 (Table 8).

## Harvest Characteristics

Many of the mountain goat hunts remained closed in 2002 because of low populations or absence of mountain goats (see Clearwater Region portion of the Department's 1986-1991 Mountain Goat Management Plan). Five permits have been offered each year in the mountain goat hunt in Unit 18 since 1983. Drawing odds for Hunt Area 18 were 1:13 up from an average of 1:10 over the previous 10 years. In 2002, the five permittees harvested four mountain goats (Table 5).

## Trapping and Transplanting

Twenty-five mountain goats trapped at Snow Peak, Unit 9, and at Olympic National Park, Washington, have been transplanted into Unit 18 since 1962 (Table 6). With growth in the mountain goat population in the Seven Devils area, the Dry Diggins lookout was evaluated as a potential trap site for mountain goats as early as 1987. Subsequent efforts with clover traps in 1991 and 1993 resulted in the capture of only one mountain goat.

Mountain goats were captured in Unit 18 with darts fired from a helicopter in 1999, 2001, and 2003. Capture efforts were patterned after the protocol at Olympic National Park where over 300 mountain goats have been captured and removed via darting with the drug Carfentanil. Given the mark-resight estimates of population size and a reasonably conservative approach to

exploitation rates, up to 12 mountain goats (six nannies) could be removed every other year for transplants.

Eighteen goats were captured and subsequently released along Big Mallard Creek in Unit 20 in 1999 and 2001. Ten of the goats were collared with radio-transmitters. Of these, five have died since release, while five still have active transmitters. Sixteen goats were captured and transplanted in 2003 to Sheep Hill in Unit 20. Six were released with radio-transmitters.

### Habitat Conditions

The deep, rugged canyons of the Snake and Salmon rivers dominate the topography of Units 14, 18, 19, and 20. Mountain goat populations in this area are found almost exclusively in habitat designated as wilderness and managed by the USFS. Mountain goats in Unit 18 are found in the Seven Devils area, while those in Units 19 and 20 are found on the breaks of the Salmon River in the Gospel Hump and Frank Church River-of-No-Return wilderness areas. Habitats in both areas are generally drier and more open than mountain goat habitat found in Units 10 and 17.

### Climatic Conditions

The Clearwater Region experienced weather conditions in 2002-2003 that were considered normal. Snowpack in the Clearwater Basin was 97% of average (October through March) while the Salmon River Basin averaged 100% for the same time period. Snowfall was later than usual in the Region with little accumulation at the lower elevations for any duration of time. This allowed big game populations to forage and move easily and probably had a positive effect on big game survival.

### Management Implications

Given the mountain goat management plan guidelines and the 2002 Hunt Area 18 mark-resight population estimate, with continued harvest, up to 12 mountain goats (six nannies) could be removed for transplants every other year. The total exploitation level would be at 5%.

In other areas where populations have been severely reduced, no hunts will be offered until those populations recover to satisfactory levels. Translocation to reestablish or augment populations will continue as mountain goats become available.

Table 1. 2002 season structure for controlled mountain goat hunts in the Clearwater Region.

Hunt Area	Season		Permits
	Dates	Length	
10-1	30 August - 12 November	75 days	2
10-2	30 August - 12 November	75 days	2
18	30 August - 12 November	75 days	5

Table 2. Summary of mountain goat surveys in Unit 12, 1981-present.

Hunt Area	Year	Inclusive Location	Adults	Kids	Unknown	Total	Kids/100 Adults	
12	1981	Old Man Creek	18	3	0	21	16.7	
		Boulder Creek	9	3	0	12	33.3	
		Noseeum Creek	6	2	0	8	33.3	
		Skookum Creek	2	0	0	2	0.0	
		Grave Butte	2	0	0	2	0.0	
		Stanley Creek	5	1	0	6	20.0	
		Lone Knob	1	0	0	1	0.0	
		Squaw Creek	2	0	0	2	0.0	
		Fish Creek <sup>a</sup>	-	-	-	-	-	-
	Boulder/Crooked Fork	4	1	0	5	25.0		
			1981 Total	49	10	0	59	20.4
	1987	Old Man Creek	18	4	0	22	22.2	
		Boulder Creek	9	1	0	10	11.1	
		Noseeum Creek	11	3	0	14	27.2	
		Skookum Creek	6	0	0	6	0.0	
		Grave Butte	0	0	0	0	0.0	
		Stanley Creek	5	0	0	5	0.0	
		Lone Knob <sup>a</sup>	-	-	-	-	-	
		Squaw Creek	8	6	0	14	75.0	
		Fish Creek	1	0	0	1	0.0	
	Boulder/Crooked Fork	10	3	0	13	30.0		
			1987 Total	68	17	0	85	25.0
	1996	Old Man Creek	21	3	0	24	14.3	
		Boulder Creek	0	0	0	0	0.0	
		Noseeum Creek	3	0	0	3	0.0	
Skookum Creek		2	1	0	3	50.0		
Grave Butte		0	0	0	0	0.0		
Stanley Creek		4	0	0	4	0.0		
Lone Knob		0	0	0	0	0.0		
Squaw Creek		11	0	0	11	0.0		
Fish Creek		0	0	0	0	0.0		
Boulder/Crooked Fork	2	1	0	3	50.0			
		1996 Total	43	5	0	48	11.6	

<sup>a</sup> Drainage not included in survey.

Table 3. Summary of mountain goat surveys in Unit 17, 1991-present.

Hunt Area	Year	Inclusive Location	Adults	Kids	Unknown	Total	Kids/100 Adults	
17	1991	E.F. Moose Creek	25	7	0	32	28.0	
		White Cap Creek	23	6	0	29	26.1	
		Canyon Creek	21	12	0	33	57.1	
		Copper Creek	3	0	0	3	0.0	
		Paradise Creek	8	0	0	8	0.0	
		Cub Creek	10	5	0	15	50.0	
		Brushy Fork Creek	10	5	0	15	50.0	
		Bear Creek	4	3	0	7	75.0	
		Upper Selway (above Magruder Crossing)	14	5	0	19	35.7	
		Little Clearwater R to Echo Cr	4	1	0	5	25.0	
		Snake Creek	0	0	0	0	0.0	
		Goat Creek <sup>a</sup>	-	-	-	-	-	
		Grouse Creek/Running Creek	0	0	0	0	0.0	
		Stewart Creek	0	0	0	0	0.0	
			1991 Total		122	94	0	166
	1994		E.F. Moose Creek	25	5	0	30	20.0
			White Cap Creek	25	2	0	27	8.0
			Canyon Creek	14	6	0	20	42.9
			Copper Creek	0	0	0	0	0.0
			Paradise Creek	4	0	0	4	0.0
Cub Creek			3	0	0	3	0.0	
Brushy Fork Creek			12	4	0	16	33.3	
Bear Creek			9	2	0	11	22.2	
Upper Selway (above Magruder Crossing)			16	2	0	18	12.5	
Little Clearwater R to Echo Cr			6	0	0	6	0.0	
Snake Creek			1	0	0	1	0.0	
Goat Creek			11	3	0	14	27.3	
Grouse Creek/Running Creek			0	0	0	0	0.0	
Stewart Creek			1	0	0	1	0.0	
			1994 Total		127	24	0	151

<sup>a</sup> Drainage not included in survey.

Table 4. Summary of mountain goat surveys in Unit 10<sup>a</sup>, 1991-present.

Year	Hunt		Adults	Kids	Unknown	Total	Kids/100
	Area	Inclusive Location					Adults
1991	10	Flat Mtn to Elizabeth Mtn	14	3	0	17	21.0
		Pot Mountain	2	0	0	2	0.0
		Moose Mountain	27	1	0	28	3.7
		S.F. Kelly Cr to Williams Cr	34	6	0	40	17.6
	10-1	Isabella Creek	50	13	0	63	26.0
	10-2	Collins to Quartz Creek	73	15	0	88	20.5
		1991 Total	200	38	0	238	19.0
1996	10	Flat Mtn to Elizabeth Mtn	12	1	0	13	8.3
		Pot Mountain	4	0	0	4	0.0
		Moose Mountain	24	3	0	27	12.5
		S.F. Kelly Cr to Williams Cr	14	0	0	14	0.0
	10-1	Isabella Creek	48	13	0	61	27.1
	10-2	Collins to Quartz Creek	61	14	0	75	23.0
		1996 Total	163	31	0	194	19.0
2000 <sup>b</sup>	10-1	Isabella Creek	54±12			54±12	
	10-2	Collins to Quartz Creek	44±5			44±5	

<sup>a</sup> Boundaries in Unit 10 changed in 1991 to include old Unit 9A.

<sup>b</sup> Paintball, mark-resight survey (19 April-1 May 2000).

Table 5. Summary of mountain goat harvest and drawing odds by Hunt Area, 1993-present.

Hunt Area	Year	Permits	Harvest		% Success	Days/ Hunter <sup>a</sup>	First Choice Applicants	Drawing Odds	
			M	F					
10-1	1993	2	2	0	100	3.0	18	1:9.0	
	1994	2	0	2	100	4.5	28	1:14.0	
	1995	2	2	0	100	2.0	26	1:13.0	
	1996	2	1	0	50	3.0	22	1:11.0	
	1997	2	2	0	100	3.5	39	1:19.5	
	1998	2	1	0	50	2.0	42	1:21.0	
	1999	2	1	1	100	9.0	33	1:16.5	
	2000	2	1	0	50	1.0	26	1:13.0	
	2001	2	2	0	100	8.0	31	1:15.5	
	2002	2	2	0	100	9.0	50	1:25.0	
	10-2	1993	2	0	2	100	3.0	22	1:11.0
		1994	2	1	0	50	2.0	21	1:10.5
1995		2	2	0	100	10.0	18	1:9.0	
1996		2	1	1	100	3.5	29	1:14.5	
1997		2	0	2	100	2.5	29	1:14.5	
1998		2	2	0	100	1.5	27	1:13.5	
1999		2	1	1	100	11.0	24	1:12.0	
2000		2	1	1	100	5.0	27	1:13.0	
2001		2	1	1	100	4.5	17	1:8.5	
2002		2	0	1	50	20.0	27	1:13.5	
12		1993	3	0	3	100	1.0	38	1:12.7
		1994	3	1	2	100	2.0	27	1:9.0
	1995	3	1	1	67	2.7	29	1:9.7	
	1996	3	0	2	67	5.5	29	1:9.7	
18	1993	5	3	2	100	4.3	47	1:9.4	
	1994	5	3	1	80	5.8	36	1:7.2	
	1995	5	1	3	80	2.5	57	1:11.4	
	1996	5	3	1	80	3.3	39	1:7.8	
	1997	5	3	2	100	4.4	64	1:12.8	
	1998	5	1	4	100	3.0	71	1:14.2	
	1999	5	3	2	100	1.4	64	1:12.8	
	2000	5	3	1	80	12.0	51	1:10.2	
	2001	5	3	1	80	1.0	60	1:12.0	
	2002	5	1	3	80	2.5	63	1:12.6	

<sup>a</sup> From 1993-1995, data are from a telephone survey of all hunters. Beginning in 1996, data are from mandatory check of successful hunters only.

Table 6. Summary of mountain goat transplants in the Clearwater Region, 1962-present.

Date	Capture Site-Unit	Release Site-Unit	Adults		Kids		Total
			M	F	M	F	
6/62	Snow Peak-9	Seven Devils-18	2	4	2	0	8
7/64	Snow Peak-9	Seven Devils-18	2	5	0	2	9
6/66	Snow Peak-9	Dome Hill-15	3	1	0	0	4
6/66	Black Mtn-9A	Dome Hill-15	1	3	0	0	4
6/67	Black Mtn-9A	Dome Hill-15	1	2	0	0	3
6/86	Black Mtn-9A	Boulder Creek-12	2	5	0	0	7
6/87	Snow Peak-9	Oregon Butte-19	0	8	0	0	8
7/87	Black Mtn-9A	Oregon Butte-19	2	2	0	0	4
7/89	Olympic NP, WA	Seven Devils-18	8	0	0	0	8
6/91	Black Mtn-10	Ship Island Cr-27	4	4	0	0	8
6/94	Black Mtn-10	Big Squaw Cr-20	4	4	0	0	8
6/96	Black Mtn-10	Big Squaw Cr-20	0	1	0	0	1
6/98	Black Mtn-10	Johns Creek-15	1	0	0	0	1
6/98	Black Mtn-10	Big Squaw Cr-20	1	2	0	0	3
6/99	Seven Devils-18	Big Mallard Falls-20	4	3	0	0	7
4/01	Seven Devils-18	Big Mallard Falls-20	5	6	0	0	11
3/03	Seven Devils-18	Sheep Hill-20	5	5	2	4	16

Table 7. Summary of mountain goat surveys in Unit 18, 1981-present.

Hunt Area	Year	Inclusive Location	Adults	Kids	Unknown	Total	Kids/100 Adults	
18	1981	Dry Gulch	20	0	0	20	0.0	
		Bernard Creek	29	4	0	33	13.8	
		Bernard Creek to Three Creek	0	0	0	0	0.0	
		Sheep Creek	3	0	0	3	0.0	
		Three Creek	12	2	0	14	16.7	
		Granite Creek	1	0	0	1	0.0	
		Three Creek to Granite Creek	0	0	0	0	0.0	
			1981 Total	65	6	0	71	9.2
	1987	Dry Gulch	0	0	0	0	0.0	
		Bernard Creek	15	2	0	17	13.3	
		Bernard Creek to Three Creek	28	7	0	35	25.0	
		Sheep Creek	1	0	0	1	0.0	
		Three Creek	3	0	0	3	0.0	
		Granite Creek	19	3	0	22	15.8	
		Three Creek to Granite Creek	4	0	0	4	0.0	
			1987 Total	70	12	0	82	17.1
	1993	Dry Gulch	49	5	0	54	10.2	
		Bernard Creek	3	2	0	5	66.7	
		Bernard Creek to Three Creek	11	4	0	15	36.4	
		Sheep Creek	1	0	0	1	0.0	
		Three Creek	20	3	0	23	15.0	
		Granite Creek	13	3	0	16	23.1	
		Three Creek to Granite Creek	20	3	0	23	15.0	
			1993 Total	117	20	0	137	17.1
	1996	Dry Gulch	0	0	0	0	0.0	
		Bernard Creek	19	1	0	20	5.3	
Bernard Creek to Three Creek		12	1	0	13	8.3		
Sheep Creek		4	0	0	4	0.0		
Three Creek		16	4	0	20	25.0		
Granite Creek		9	1	0	10	11.1		
Three Creek to Granite Creek		1	0	0	1	0.0		
		1996 Total	61	7	0	68	11.5	
	1999 <sup>a</sup>	1999 Total	171±48	61±44	0	237±67	34.5	
	2002	2002 Total	196±22					

<sup>a</sup> Paintball, mark-resight estimates that include all of Hunt Area 18 (Units 18 and 22).

Table 8. Summary of mountain goat surveys in Unit 19 and 20, 1982-present.

Hunt Area	Year	Inclusive Location	Adults	Kids	Unknown	Total	Kids/100 Adults	
19	1982	Wind River	5	2	0	7	40.0	
		Crooked River	7	1	0	8	14.3	
		Sheep Creek	0	0	0	0	0.0	
		Elk Creek	2	1	0	3	50.0	
		Upper Johnson Creek <sup>a</sup>	-	-	-	-	-	
			1982 Total	14	4	0	18	28.6
	1986	Wind River	1	0	0	1	0.0	
		Crooked River	11	3	0	14	27.3	
		Sheep Creek	24	9	0	33	37.5	
		Elk Creek	9	4	0	13	44.4	
		Upper Johnson Creek <sup>a</sup>	-	-	-	-	-	
			1986 Total	45	16	0	61	35.6
	1993	Wind River	7	3	0	10	42.9	
		Crooked River	4	0	0	4	0.0	
		Sheep Creek	8	0	0	8	0.0	
Elk Creek		2	0	0	2	0.0		
Upper Johnson Creek		3	1	0	4	33.3		
		1993 Total	24	4	0	28	16.7	
20	1982	Blowout Creek	2	0	0	2	0.0	
		Rhett Creek	10	4	0	14	40.0	
		Sabe Creek	10	3	0	13	30.0	
		Rattlesnake Creek	3	1	0	4	33.3	
		Bargamin Creek	2	0	0	2	0.0	
			1982 Total	27	8	0	35	29.6
	1987	Blowout Creek	4	0	0	4	0.0	
		Rhett Creek	12	1	0	13	8.3	
		Sabe Creek	30	8	0	38	26.7	
		Rattlesnake Creek	2	0	0	2	0.0	
		Bargamin Creek	2	0	0	2	0.0	
			1987 Total	50	9	0	59	18.0
	1993	Blowout Creek	1	0	0	1	0.0	
		Rhett Creek	1	0	0	1	0.0	
		Sabe Creek	15	2	0	17	13.3	
Rattlesnake Creek		2	0	0	2	0.0		
Bargamin Creek		0	0	0	0	0.0		
		1993 Total	19	2	0	21	10.5	

<sup>a</sup> Drainage not included in survey.

**PROGRESS REPORT  
SURVEYS AND INVENTORY**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mountain Goat Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-27</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>3, McCall</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>5</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 2002 to June 30, 2003</u>		

**SOUTHWEST REGION, MCCALL**

**ABSTRACT**

No mountain goat harvest occurred in the Southwest Region during this reporting period. A mountain goat aerial survey was conducted between 11 and 17 April 2003 in Units 19A, 20A, 24, 25, and 26. Significantly fewer goats were observed during this survey than in the 1990 survey. A new hunt was created with 4 permits in Unit 22 for the 2003 and 2004 goat hunting seasons.

**UNITS 19A, 20A, 22, 23, 24, 25, 26**

Management Direction

Management will be consistent with the statewide management direction delineated in the 1991-1995 Mountain Goat Management Plan.

Background

Historically, Units 20A, 25, and 26 had controlled mountain goat hunt areas. Unit 20A had three controlled hunt areas with a total of 13 permits the last year hunting was authorized (1979). All three hunts were discontinued in 1980. Unit 25 also had three controlled hunt areas. Hunting was discontinued in one area in 1979 and in 1980 in the other areas. A total of seven permits were issued the last year hunting was allowed. Unit 26 had two controlled hunt areas. By 1980, hunting was discontinued in both hunt areas. A total of five permits were issued the last year hunting was allowed in both areas.

Population Surveys

A helicopter aerial population survey of mountain goats was conducted between 11 and 17 April 2003 in Units 19A, 20A, 24, 25, and 26. Data indicate these goat populations continue to decline precipitously. Goat observations declined significantly in the 2003 survey (54 goats) when compared to the 1990 survey (108 goats). Units 20A and 25 declined the most (Table 1). A preponderance of the Unit 26 goats was located in the 2000 fire area in lower Big Creek.

### Harvest Characteristics

Mountain goats are hunted in portions of Unit 22 and 23 of the Southwest Region and harvest is reported with the Unit 18 harvest in the Clearwater Region. No other mountain goat hunting occurred in the Southwest Region during the reporting period.

### Management Implications

The McCall subregion accounted for eight mountain goat controlled hunt areas in 1977. All mountain goat hunting in the Region was discontinued in 1980. Mountain goat hunting will remain closed within the Southwest Region until population survey data document that populations have recovered and meet the minimum requirements to establish a hunt as set forth in the 1991-1995 Mountain Goat Management Plan. The data collected for Units 20A, 25, and 26 in 2003 do not support any change from this closed status. An exception to this is the Unit 22 mountain goat population, which is contiguous with the Unit 18 population. The Unit 22 population has been increasing as a result of mountain goats pioneering out from the Unit 18 hunt area. Mountain goat Hunt Area 18 was expanded south in 1997 to include the Brush Creek drainage of Unit 22. Based on the aerial survey in 2000, the increase in goat numbers seems to be continuing in these two units. As a result, the Commission approved a separate hunt area for all of Unit 22 with four permits for the 2003 and 2004 hunting seasons.

Mountain goat transplant sites were identified and prioritized during the 1988-1990 reporting period. Authorization from the appropriate land management agencies was obtained during the 1989-1990 reporting period. These sites were incorporated into the Department's 1991-1995 Mountain Goat Management Plan and revised in August 2000. The 2003 aerial survey data indicate there is a paucity of goats in the lower South Fork Salmon River portion of Unit 20A. This area burned in 1994 and should be good habitat for mountain goats. It is speculated that maybe the mortality during the 1994 fire was significant and without a colonizing source of goats, the habitat is now near vacant. This area should be reviewed and considered as one of the top priorities for reintroduction or supplementation in the McCall subregion, if not in the state.

Table 1. Summary of mountain goat surveys in Units 20A, 22, 25, and 26), 1982-present.

Unit	Age Class	Survey Year				
		1982	1990	1996	2002	2003
20A	Adults	35	35	-	-	9
	Kids	11	5	-	-	2
	Total	46	40	-	-	11
	Kids:100 Adults	31	14	-	-	22
22	Adults	-	-	44	45	-
	Kids	-	-	5	9	-
	Total	-	-	49	54	-
	Kids:100 Adults	-	-	11	20	-
25	Adults	52	21	-	-	7
	Kids	7	6	-	-	2
	Total	59	27	-	-	9
	Kids:100 Adults	13	22	-	-	29
26	Adults	34	35	-	-	24
	Kids	6	6	-	-	10
	Total	40	41	-	-	34
	Kids:100 Adult	18	17	-	-	42

**PROGRESS REPORT  
SURVEYS AND INVENTORY**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mountain Goat Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-27</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>4</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Use, and Associated</u>
<b>JOB:</b>	<u>5</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b> <u>July 1, 2002 to June 30, 2003</u>			

**MAGIC VALLEY REGION**

**ABSTRACT**

No aerial surveys were conducted during this reporting period. Only one hunter in Hunt Area 48 was successful in 2002.

**UNITS 43, 48, 49**

**CONTROLLED HUNT AREA 48**

Management Direction

Follow statewide management direction, encourage the U.S. Forest Service (USFS) to reduce livestock/human/mountain goat conflicts in favor of mountain goats, and maintain current hunts and permit levels.

Background

After relatively liberal harvests during the 1970s, mountain goat hunting seasons were closed in Unit 43 in 1979 and 1980 because of concern over declining numbers and a lack of information on the status of populations. Surveys conducted in February 1981 indicated mountain goat numbers were high enough to allow limited hunting. From 1981-1990, four controlled hunt permits (two hunt areas) were authorized and from 1991-1994, three permits (one hunt area) were authorized. Helicopter surveys conducted in 1994, 1996, and 2001 indicate the Unit 43 population has decreased substantially since the 1990 survey and does not meet minimum standards to allow harvest. Unit 43 has been closed to mountain goat hunting since 1995.

From 1981-1986, that portion of Unit 49 west of the Little Wood River was included in a hunt area with a portion of Unit 48 and two permits were authorized. An aerial survey in December 1985 indicated that the Unit 49 mountain goat population was not large enough to allow sport harvest and the season has been closed since 1987. An aerial survey in 2000 indicated population levels increased substantially since the previous survey in 1992. In 2001, Unit 49 was opened to harvest and included Hunt Area 50. Controlled hunt permit levels for this hunt

area remained the same as in the previous year at two permits. Information on this hunt is presented under Controlled Hunt Area 50 in the Upper Snake Region section of this report.

From 1981-1986, four permits were issued in two hunt areas for Unit 48 (one area included that portion of Unit 49 west of the Little Wood River). In 1987, Unit 49 was closed to mountain goat hunting and excluded from the 48-2 hunt area. From 1987-1990, Unit 48 was divided into two hunts each with two permits; east of State Highway 75 (48-2) and west of State Highway 75 upstream from and including the Baker Creek drainage (48-1). Permit levels were reduced in 1991 based on aerial survey results. Since 1991, two permits have been authorized annually in one hunt area that includes all of the former 48-1 and 48-2 hunt areas (Table 1).

### Population Surveys

No population surveys were conducted in 2002-2003. Past surveys are summarized in Table 2.

### Transplants

Potential release sites have been identified in Units 43, 48, and 49. No transplants occurred in the Region during the reporting period.

### Harvest Characteristics

In 2002, only one mountain goat permittee in Unit 48 was successful. The hunter harvested a 4½-year-old male mountain goat in three days of hunting. Drawing odds in the Unit 48 hunt averaged 15% from 1991-2002. A summary of mountain goat harvest data for the Magic Valley Region is shown in Table 3.

### Management Implications

Results of the 2001 aerial survey in Units 43 and 48 suggest that mountain goat numbers have remained stable in both units since the last survey. Both units appear to have relatively low production and limited potential for additional harvest. The Unit 43 population has very low numbers; however, sexually mature adults are scattered throughout the suitable habitat and the potential for increasing the population is good. Unit 48 remains the most productive mountain goat unit in the Magic Valley Region. Because of its proximity to the Ketchum/Sun Valley area and State Highway 75, Unit 48 goats are frequently observed by the general public and have important nonconsumptive value.

Hunting will remain closed in Unit 43 until aerial survey data indicates population increases in this and adjacent units. Units 43, 36, and 39 are proposed to be surveyed as a group in the winter of 2004. Numerous recent observations of goats by the public and Department employees may indicate population levels have increased and some harvest opportunity may be available. In Unit 48, the permit level will remain at two until data becomes available to suggest a change. Because of an increased number of mountain goats observed in 2000 in Unit 49, it was included in a hunt area with Unit 50 for the 2001-2002 seasons. Permit levels remained at two for this hunt area. Future surveys of this mountain goat population will include habitat in both Units 49

and 50 since this population uses portions of both units. The population has been identified for augmentation releases if and when a source of mountain goats becomes available. Currently, the USFS is attempting to improve mountain goat habitat through improved livestock management and limiting motorized access, which should assist in population recovery.

Table 1. 2002 season structure for controlled mountain goat hunts in the Magic Valley Region.

Hunt Area	Season		Permits
	Dates	Length	
48	30 August - 12 November	75 days	2

Table 2. Summary of mountain goat surveys in Units 43, 48, and 49, 1981-present.

Year	Unit	Adults	Kids	Unknown	Total	Kids/100 Adults
1981	43	69	20	0	89	29.0
1990	43	67	21	0	88	31.3
1994	43	21	4	0	25	19.0
1996	43	25	7	0	32	28.0
2001	43	26	2	0	28	7.7
1981	48 <sup>a</sup>	18	3	0	21	16.7
1981	48 <sup>b</sup>	19	2	0	21	10.5
1981	48/49 <sup>c</sup>	21	1	5	30	4.8
1985	48 <sup>a</sup>	26	8	0	34	30.8
1990	48	43	16	0	59	37.2
1994	48	52	13	0	65	25.0
2001	48	55	14	0	69	25.5
1992	49	8	2	0	10	25.0
2000	49	22	1	0	23	4.5

<sup>a</sup> That portion of Unit 48 west of the North Fork Big Wood River and north of State Highway 75.

<sup>b</sup> That portion of Unit 48 west of State Highway 75 and north of Baker Creek.

<sup>c</sup> That portion of Unit 48 east of State Highway 75 and south of the Trail Creek Road, and that portion of Unit 49 west of the Little Wood River.

Table 3. Summary of mountain goat harvest and drawing odds by Hunt Area, 1993-present.

Hunt Area	Year	Permits	Harvest		% Success	Days/ Hunter <sup>a</sup>	First Choice Applicants	Drawing Odds
			M	F				
43	1993	3	1	2	100	5.3	14	1:4.7
	1994	3	1	2	100	5.5	11	1:3.7
48	1993	2	2	0	100	6.0	12	1:6.0
	1994	2	2	0	100	3.0	10	1:5.0
	1995	2	0	2	100	3.5	13	1:6.5
	1996	2	2	0	100	1.0	8	1:4.0
	1997	2	2	0	100	5.5	16	1:8.0
	1998	2	2	0	100	2.0	13	1:6.5
	1999	2	1	0	50	25.0	20	1:10.0
	2000	2	1	1	100	2.5	13	1:6.5
	2001	2	2	0	100	4.5	8	1:4.0
	2002	2	1	0	50	3.0	25	1:12.5

<sup>a</sup> From 1993-1995, data are from a telephone survey of all hunters. Beginning in 1996, data are from mandatory check of successful hunters only.

**PROGRESS REPORT  
SURVEYS AND INVENTORY**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mountain Goat Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-27</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>6</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>5</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 2002 to June 30, 2003</u>		

**UPPER SNAKE REGION**

**ABSTRACT**

Five distinct populations of mountain goats occur in the Upper Snake Region. These include the Pioneer Mountains (Unit 50), South Lemhi Range (Units 29, 51, and 58), Red Conglomerates (Unit 59), Italian Peaks (Unit 59A), and the Snake River Range (Unit 67).

Three controlled hunts were offered in the Upper Snake Region in 2002. Eleven permits were offered, and 11 mountain goats were harvested (100% success) based on mandatory harvest reports (no telephone survey has been conducted on trophy species permit holders since 1996). Drawing odds ranged from 1:8.2 (Hunt Area 51) to 1:15.0 (Hunt Area 67).

Population surveys were flown in Hunt Areas 59 and 59A in early September 2002. Despite good counting conditions, counts were down dramatically in all areas. No goats were observed in Unit 59 (25 goats were counted in 1994) and only 22 goats were tallied in Unit 59A, compared to the 128 counted in 1994. The declines in these populations have resulted in the closure of both of these hunts (59 in 1995 and 59A in 2002). In 2002, an attempt was made to survey the entire population of goats in both Idaho and Montana. In addition to the traditional area surveyed, the Beaverhead Range from Italian Peak to Ten Mile Creek, Idaho/Morrison Lake, Montana was surveyed. Within this area, an additional six adult goats were observed above Morrison Lake on the Montana side of the range and a nanny and kid observed in upper Clear Creek, Unit 30A on the Idaho side of the range. Kid:100 adult ratio has also declined from 39.1 in 1994 to 22.2 in 2002. Reasons for these declines are poorly understood.

A population survey was also conducted in Unit 67 in mid-August 2002. Forty-two goats (35 adults and 7 kids) were counted from Palisades Creek to the Wyoming border and none north and west of Palisades Creek. This was the fewest goats counted in this area since before 1982. The most disappointing observation was that no goats were observed in the Mt. Baldy area where 106 goats were counted in 1986 and the goat dust beds and trails so obvious 10 years ago no longer exist. Kid:100 adult ratios have also declined from over 40 to 20. Goat numbers on the Wyoming side of the area also declined from 76 in 2000 to 55 in 2002. As with the Unit 59 and 59A goats, the reason for this decline is not understood.

No trapping and/or transplant operations were conducted during this reporting period.

## UNIT 50

### CONTROLLED HUNT AREA 50

Description: Hunt Area 50 – All of Unit 49 and that portion of Unit 50 south and east of the Trail Creek Road and south and west of U.S. Highway 93.

#### Background

Hunt Areas 50-1 and 50-2 were closed in 1982 because of a low kid:adult ratio. Hunt Area 50 (that portion of Unit 50 south and east of the Trail Creek Road and south and west of U.S. Highway 93) was reopened with five permits in 1986 after 92 mountain goats with 30 kids:100 adults were counted on a 1985 survey. This hunt area was previously identified as 50-2 and was closed when only 45 mountain goats with 22 kids:100 adults were counted during a helicopter survey during the winter of 1981-1982. Unit 49 was added to this hunt in 2001. Current season structure for Hunt Area 50 is shown in Table 1.

#### Population Characteristics

A helicopter survey was last conducted in Unit 50 in late August 1999 (Table 2). The total number of mountain goats counted (50) in the Hunt Area 50 portion was nearly identical to the total accounted for on the next most recent survey (49 in 1992), but was only 54% of the total counted on the 1985 survey (92). However, the kid:adult ratio had improved to 25:100.

The most recent population survey in Unit 49 was conducted in 2000 and accounted for 23 goats (22 adults and one kid).

#### Harvest Characteristics

Two permits were issued in Hunt Area 50 in 2002 (Table 3), resulting in the harvest of two mountain goats (100% hunter success). Both goats harvested in Unit 50 were males. No telephone survey of mountain goat permit holders has been conducted since 1995. Harvest estimates have been derived from mandatory harvest reports from 1996 to present. Drawing odds were 1:11.0 in 2002. Mean age of harvested goats was 6.5. Mean horn length was 7.5". Mean circumference was 4.25". Mean days hunted was 1.5.

#### Climatic Conditions

Spring and summer weather conditions during 2002 were warmer and much drier than normal. Winter precipitation was below normal and temperatures were warmer than normal. The spring of 2003 has seen the return of below average precipitation levels.

#### Habitat Conditions

Mountain goats in Hunt Area 50 occupy the higher elevation peaks and ridges of the Pioneer Range. Habitat in this area is discontinuous and appears less productive than other

occupied mountain goat habitat in the Upper Snake Region. The two habitat components that are most limited are alpine meadow summer range and mountain mahogany stands for winter range. Tracks observed on aerial surveys indicate mountain goats, either solitary or in small groups, shift several miles to find suitable habitats following winter storms. Water may also be limiting in some parts of the summer range.

#### Trapping and Transplanting

No trapping and/or transplanting operations have been conducted in Unit 50.

#### Management Implications

Permits in Hunt Area 50 were reduced from five to two in 1993 based upon results of the 1992 population survey. The 50 mountain goats accounted for on the two most recent population surveys (February 1992 and August 1999) place this hunt at the minimum population level for a unit to sustain a hunt, as per the 1991-1995 Mountain Goat Management Plan. The addition of Unit 49 adds more goats to this hunt area and better encompasses the Pioneer Range goat population.

### **UNITS 29, 51, 58, 59, 59A**

#### **CONTROLLED HUNT AREA 51**

Description: Hunt Area 51 - That portion of Unit 29 south of and excluding the Big Timber Creek drainage, that portion of Unit 51 east of the Howe-Goldburg Road, and that portion of Unit 58 west of State Highway 28.

#### Background

Mountain goats are native to these ranges. Reports of observations of one to a few mountain goats date back to the early 1950s. Numbers remained low, however, until about the mid-1970s. Aerial surveys in 1982 indicated that populations in Hunt Areas 51 and 59A had increased enough to increase permits in Hunt Area 51 and initiate Hunt Area 59A. Hunt Area 59 was initiated in 1987 after a 1986 survey found 46 mountain goats with a ratio of 44 kids per 100 adults. This hunt was closed after a 1994 population survey accounted for only 25 mountain goats. Hunt Area 59A was closed in 2002 because the population had declined below the minimum number to support a hunt (Table 2).

From 1983 to 1986, Hunt Area 51 was split into 51-1 (north of Rocky Canyon drainage) and 51-2 (south of and including Rocky Canyon drainage). These hunts were combined in 1987 when observations showed mountain goats moved freely between the two hunt areas and hunter densities were not a problem.

One controlled hunt (Table 1) with a total of six permits was held in these units in 2002.

## Population Surveys

A population survey was most recently flown in Hunt Area 51 in the first week of August 2000. A total of 157 mountain goats with a kid:adult ratio of 26:100 was counted (Table 2). This total represents the historical high count for the area and was 105% higher than the next most recent count of 61 in 1992.

Population surveys were conducted in Units 59 and 59A in mid August 2001 and again in early September 2002 (Table 2). A Bell G47 helicopter was used to conduct the surveys.

No goats were found in Unit 59 in 2001 or 2002 despite good counting conditions, the same areas being surveyed by the same observer as the previous (1994) survey. A total of 25 mountain goats were counted in Unit 59 in 1994. The observed kid:adult ratio was 79:100, and no twin sets were identified. The 25 mountain goats counted on this survey represented a decrease of 46% from the next most recent survey (1986). No goats could be found on the Montana side of the range (Garfield Peak, Lima Peaks and upper Shineberger Creek) in 2002.

The 2001 survey of Unit 59A accounted for only 25 mountain goats (Table 2). This total represents an 80% decrease from the previous survey (1994). Counting conditions were good during this survey, and again, the same areas were surveyed by the same observer, pilot, and aircraft as the previous surveys. The 1994 survey results included a total count of 128 mountain goats with 39 kids:100 adults (four sets of twins identified). This total represented an increase of 44% from the 1991 survey and represented the most mountain goats ever counted in this unit.

The 2002 survey in Unit 59A found only 22 mountain goats (Table 2). The survey was conducted by the same observer, but a different pilot and aircraft than the 1994 and 2001 surveys. Winds prevented getting close to rocks in some places to get precise GIS locations, however, the area was surveyed adequately to count and classify the goats. In addition to the traditional area surveyed in Idaho, the mountain range from Ten Mile Creek, Idaho, and Morrison Lake, Montana was surveyed. In this additional area, six adult goats were observed above Morrison Lake in Montana and a nanny and kid was observed in upper Clear Creek, Unit 30A in Idaho. The reason for this decline in goats is unknown.

## Harvest Characteristics

A total of six permits were issued for Hunt Area 51 in 2002 (Table 3). All six permittees were successful in harvesting mountain goats (100% hunter success), based on mandatory harvest reports. Three goats harvested in Hunt Area 51 were males and three were females. Drawing odds were 1:8.2 for Hunt Area 51 in 2002 (Table 3). Mean age of harvested goats was 6.5. Mean horn length was 8.65". Mean circumference was 4.48". Mean days hunted was 5.3.

## Climatic Conditions

Spring and summer weather conditions during 2002 were much warmer and drier than normal. Winter precipitation was below normal and temperatures were above average. Precipitation has again dropped well below average since mid March.

### Habitat Conditions

Mountain goat habitat in these units consists of alpine meadows interspersed with scree and talus, conifers, and mountain mahogany. Water and alpine meadow habitat is limited in these ranges and may be limiting goat distribution and population growth.

### Trapping and Transplanting

No trapping and/or transplant operations were conducted during this reporting period.

### Management Implications

The 1991-1995 Mountain Goat Management Plan authorizes hunts in game management units having a minimum of 50 adult mountain goats, requires that hunted units be inventoried at least once every five years, and sets permit levels to not exceed 5% of the adults in any population. Based on the most recent survey data, season framework modifications were implemented beginning in 1995. The permit level in Unit 51 was increased from four to six. However, the dramatic decrease in goats counted in both Units 59 and 59A have resulted in the closure of these hunts (Unit 59 in 1995 and Unit 59A in 2002). Reasons for these declines are unknown.

## **UNIT 67**

### **CONTROLLED HUNT AREA 67**

Description: Hunt Area 67 – All of Unit 67.

### Background

The Snake River Range lies outside the historical range of mountain goats. Five mountain goats were introduced in 1969 (Hayden 1989). The mountain goat population in Unit 67 grew rapidly in the 1970s and 1980s. Hunts were initiated in 1983. Each of Hunt Areas 67-1, 67-2, 67-3, and 67-4 had four permits in 1986, resulting in a net increase of six permits over the 1985 seasons. Two new hunts (67-5 and 67-6) were created in 1987. Due to decreasing population trends and plans to continue trapping mountain goats from the Mt. Baldy and Mt. Baird populations for statewide transplants, seasons were restructured in 1991. Total permits were reduced from 24 to 13. Hunt Areas 67-2, 67-4, and 67-6 were combined and renumbered to 67-1. Additionally, Hunt Area 67-1 became 67-2; 67-3 remained 67-3; and 67-5 became 67-4. The continued downward population trend resulted in the further restructuring of the Unit 67 goat hunts in 2001 (Table 1), to consist of only one hunt with three permits encompassing all of Unit 67.

### Population Surveys

Productivity and survival have historically been high in this introduced population. In 1982 and 1983, the percent of adult females producing young was 71% and 83%, respectively, and twinning rates were 25% and 33%, respectively. Annual survival from 1982 to 1983 was calculated to be 88% among kids, 95% among yearlings, and 93% among adult/subadults

(Hayden 1989). Even in the face of declining populations, kid:adult ratios remained high through 2000, but showed a marked decline in the 2002 count (Table 2).

Surveys have been conducted in Unit 67 on a fairly frequent basis. An aerial population survey was most recently conducted on these two mountain goat populations with a Bell G47 helicopter in early August 2002. A total of 42 mountain goats with a kid:adult ratio of 20:100 was counted in the Mt. Baird portion of Unit 67 (Hunt Area 67-1; Table 2). The next most recent count in this area was a helicopter count conducted in 2000 that accounted for 90 mountain goats. This population has shown a steady decline from 217 (the historical high count) down to 42 since 1996. Reasons for this decline are largely unknown.

The 2002 population survey of the Mt. Baldy portion of Unit 67 was disappointing in that no goats could be found (Table 2). What was even more disappointing was that the goat dust beds and trails so prominent 10 years ago no longer exist, suggesting goats no longer use this area.

### Harvest Characteristics

A total of three permits were issued for Hunt Area 67 in 2002 (Table 3). Three mountain goats (male) were harvested on the Unit 67 hunt (100% hunter success), based on mandatory harvest reports. Drawing odds were 1:15.0 for Hunt Area 67 in 2002. Mean age of harvested goats was 7.0. Mean horn length was 9.00". Mean circumference was 5.33". Mean days hunted was 10.3.

### Climatic Conditions

Spring and summer weather conditions during 2002 were warmer and significantly drier than normal. Winter precipitation was below normal and temperatures were above average. Weather conditions for the spring of 2003 have been warmer and drier than normal.

### Habitat Conditions

Unit 67 mountain goat habitat is productive, with a good complex of alpine meadows, mountain mahogany, and conifers. In summer, the mountain goats use lush, alpine meadows and cirque basins. Examination of harvested mountain goats from this area indicates they are in extremely good body condition going into winter.

Domestic sheep graze the Mt. Baird area and may be impacting mountain goat summer range. This area is heavily used by mountain goats prior to sheep use, but they leave and move onto winter range when domestic sheep are present. It is not known if this mountain goat movement is due to forage or spatial competition, or disturbance created by herders and dogs. The Targhee National Forest, who administers the area, has continued to evaluate the conflict.

The Bridger-Teton National Forest is currently going through the NEPA process to evaluate the impacts of a proposal for heli-skiing in the area. If approved, this could have negative impacts for this goat population.

### Trapping and Transplanting

Several efforts to translocate mountain goats from the Mt. Baldy and Mt Baird populations were made between 1989 and 1997. Mountain goats were trapped in clover traps using salt as bait and some were net-gunned. A total of 46 mountain goats were removed from the area during six trapping efforts (Table 4).

### Management Implications

The past heavy harvest strategy (pre-1992) was dictated by the rapidly increasing, productive nature of this introduced herd. Subsequent downward population trends, along with plans to continue trapping mountain goats for transplant operations, precipitated a reduction in permits and a restructuring of Unit 67 mountain goat hunts.

The largest number of mountain goats (217) counted in the old Hunt Area 67-1 (Mt. Baird area) was observed on the 1996 survey flight. Subsequent survey results indicated a decrease to 163 in 1998, 90 in 2000, and 42 in 2002. The population objective after the 1996 survey was to reduce this population to a level thought to be more in balance with available habitat. A more aggressive harvest strategy (20 permits) was adopted beginning with the 1997 hunting season and an additional 10 goats were trapped and provided for statewide transplant operations. However, the 67-1 goat population has declined more precipitously than management actions would dictate. Reasons for this decline are unknown. This situation is being monitored closely and the hunt will be closed for the 2003 and 2004 seasons.

The lack of goats found in the old Hunt Area 67-2 during the 2002 survey is very disappointing. It is hoped with the season closure, the area will be repopulated from the Mt Baird area.

The two hunts were combined in 2001 and permits were reduced to three. This season retained for 2002. There are no hunts authorized for the 2003 and 2004 seasons in any of Unit 67.

### **LITERATURE CITED**

Hayden, J. A. 1989. Status and population dynamics of mountain goats in the Snake River Range, Idaho. M. S. Thesis, Univ. Montana, Missoula. 147 pp.

Table 1. 2002 season structure for controlled mountain goat hunts in the Upper Snake Region.

Hunt Area	Season		Permits
	Dates	Length	
50	30 August - 12 November	75 days	2
51	30 August - 12 November	75 days	6
67	30 August - 12 November	75 days	3

Table 2. Summary of mountain goat surveys by Hunt Area, 1982-present.

Hunt Area	Year	Inclusive Location	Adults	Kids	Unknown	Total	Kids/100 Adults
50	1982 <sup>a</sup>	That portion north and west of the Trail Creek Road and south and west of U.S. Highway 93.	13	3	0	16	23.1
	1985 <sup>a</sup>		9	2	0	11	22.2
	1992 <sup>a</sup>		13	0	0	13	0.0
	1999 <sup>a</sup>		26	4	0	30	15.4
50	1982 <sup>a</sup>	That portion south and east of the Trail Creek road and south and west of U.S. Highway 93.	37	8	0	45	21.6
	1985 <sup>a</sup>		66	20	6	92	30.3
	1992 <sup>a</sup>		45	4	0	49	8.9
	1999 <sup>a</sup>		40	10	0	50	25.0
51	1982 <sup>a,c</sup>	Lemhi Range South of the Big Timber Creek drainage	75	22	0	97	29.3
	1986 <sup>a</sup>		68	15	17	101	22.1
	1987 <sup>b</sup>		100	30	0	130	30.0
	1992 <sup>a</sup>		54	7	0	61	13.0
	2000 <sup>a</sup>		125	32	0	157	25.6
59	1986 <sup>a</sup>	Red Conglomerates	32	14	0	46	43.8
	1994 <sup>a</sup>		14	11	0	25	78.6
	2001 <sup>a</sup>		0	0	0	0	-
	2002 <sup>a</sup>		0	0	0	0	-
59A	1982 <sup>a</sup>	Italian Peaks	46	13	0	59	28.3
	1986 <sup>a</sup>		10	3	0	13	30.0
	1991 <sup>b</sup>		61	24	4	89	39.3
	1994 <sup>a</sup>		92	36	0	128	39.1
	2001 <sup>a</sup>		16	4	0	20	25.0
	2002 <sup>a</sup>		18	4	0	22	22.2
67-1	1982 <sup>a</sup>	South of Palisades Creek (Mt. Baird area)	33	13	0	46	39.4
	1985 <sup>a</sup>		35	16	0	51	45.7
	1986 <sup>b</sup>		0	0	104	104	-
	1986 <sup>a</sup>		37	15	0	52	40.5
	1988 <sup>b</sup>		71	21	0	92	29.6
	1990 <sup>b</sup>		45	18	0	63	40.0
	1993 <sup>b</sup>		104	33	16	153	31.7
	1994 <sup>a</sup>		73	42	0	115	57.5
	1996 <sup>a</sup>		151	66	0	217	43.7
	1998 <sup>a</sup>		118	45	0	163	38.1
	2000 <sup>a</sup>		61	29	0	90	47.5
	2002 <sup>a</sup>		35	7	0	42	20.0
67-2	1982 <sup>a</sup>	North of Palisades Creek (Mt. Baldy area)	45	12	0	57	26.7
	1985 <sup>a</sup>		31	8	0	39	25.8
	1986 <sup>b</sup>		0	0	126	126	-
	1986 <sup>a</sup>		38	19	49	106	50.0
	1987 <sup>b</sup>		72	28	0	100	38.9
	1988 <sup>b</sup>		91	31	0	122	34.1
	1989 <sup>b</sup>		35	12	0	47	34.3
	1990 <sup>b</sup>		73	22	0	95	30.1
	1994 <sup>a</sup>		41	20	0	61	48.8
	1996 <sup>a</sup>		47	17	0	64	36.2

Table 2. Continued.

Hunt Area	Year	Inclusive Location	Adults	Kids	Unknown	Total	Kids/100 Adults
	1998 <sup>a</sup>		26	7	0	33	26.9
	2000 <sup>a</sup>		9	5	0	14	55.6
	2002 <sup>a</sup>		0	0	0	0	-

<sup>a</sup> Helicopter count.

<sup>b</sup> Ground count.

<sup>c</sup> Census results combined for Hunt Areas 51-1 and 51-2.

Table 3. Summary of mountain goat harvest and drawing odds by Hunt Area, 1993-present.

Hunt Area	Year	Permits	Harvest		% Success	Days/ Hunter <sup>a</sup>	First Choice Applicants	Drawing Odds
			M	F				
50	1993	2	1	1	100	7.0	15	1:7.5
	1994	2	1	1	100	8.5	15	1:7.5
	1995	2	1	0	50	5.0	14	1:7.0
	1996	2	2	0	100	4.0	11	1:5.5
	1997	2	1	0	50	1.0	11	1:5.5
	1998	2	1	1	100	2.5	17	1:8.5
	1999	2	2	0	100	3.0	17	1:8.5
	2000	2	1	1	100	1.0	30	1:15.0
	2001	2	2	0	100	3.0	23	1:11.5
	2002	2	2	0	100	7.3	22	1:11.0
51	1993	6	5	1	100	4.4	32	1:5.3
	1994	6	5	1	100	4.2	44	1:7.3
	1995	4	1	2	75	11.3	36	1:9.0
	1996	4	3	0	75	4.3	25	1:6.3
	1997	4	1	2	75	1.3	20	1:5.0
	1998	4	3	1	100	4.5	40	1:10.0
	1999	4	2	1	75	13.7	34	1:8.5
	2000	4	3	1	100	2.0	33	1:8.3
	2001	6	5	1	100	8.5	54	1:9.0
	2002	6	3	3	100	5.3	49	1:8.2
59	1993	2	2	0	100	3.5	14	1:7.0
1994	2	0	2	100	4.0	11	1:5.5	
59A	1993	4	3	0	75	4.3	25	1:6.3
1994	4	1	2	75	3.8	34	1:8.5	
1995	5	1	4	100	2.8	35	1:7.0	
1996	5	2	2	80	3.3	44	1:8.8	
1997	5	4	1	100	3.6	43	1:8.6	
1998	5	4	0	80	5.3	36	1:7.2	
1999	5	3	1	80	7.5	49	1:9.8	
2000	5	3	1	80	3.5	45	1:9.0	
2001	5	2	2	80	4.5	34	1:6.8	
67 <sup>b</sup>	2001	3	2	1	100	5.7	49	1:16.3
2002	3	3	0	100	10.3	45	1:15.0	
67-1	1993	7	2	4	86	3.0	67	1:9.6
1994	7	6	1	100	2.7	77	1:11.0	
1995	7	2	0	29	7.0	97	1:13.9	
1996	7	4	1	71	3.4	77	1:11.0	
1997	20	8	8	80	2.6	166	1:8.3	
1998	20	4	9	65	6.5	129	1:6.5	
1999	10	4	5	90	3.0	105	1:10.5	
2000	10	5	4	90	4.1	83	1:8.3	
67-2	1993	2	2	0	100	1.0	17	1:8.5
1994	2	1	1	100	6.5	11	1:5.5	
1995	4	1	0	25	5.7	32	1:8.0	
1996	4	3	1	100	3.8	41	1:10.3	
1997	4	3	1	100	4.5	26	1:6.5	
1998	4	3	0	75	5.0	21	1:5.3	

Table 3. Continued.

Hunt Area	Year	Permits	Harvest		% Success	Days/ Hunter <sup>a</sup>	First Choice Applicants	Drawing Odds
			M	F				
67-3	1993	2	1	0	50	7.5	24	1:12.0
	1994	2	0	2	100	2.0	9	1:4.5
67-4	1993	2	2	0	100	2.0	9	1:4.5
	1994	2	1	1	100	2.0	22	1:11.0

<sup>a</sup> From 1993-1995, data are from a telephone survey of all hunters. Beginning in 1996, data are from mandatory check of successful hunters only.

<sup>b</sup> Old Hunt Areas 67-1 and 67-2 combined and renamed Hunt Area 67 in 2001.

Table 4. Summary of mountain goat transplants in the Upper Snake Region, 1969-present.

Date	Capture Site-Unit	Release Site-Unit	Adults		Kids		Total
			M	F	M	F	
7/69	Snow Peak-9	Palisades Creek-67	1	2	0	0	3
7/69	Black Mtn-9A	Palisades Creek-67	1	1	0	0	2
7/70	Black Mtn-9A	Black Canyon-67	3	0	0	0	3
7/70	Black Mtn-9A	Black Canyon-67	1	2	1	0	4
8/89	Mt Baldy-67	Williams Creek-28	1	1	0	0	2
7/90	Mt Baldy-67	Panther Creek-28	2	3	0	2	7
7/91	Mt Baldy-67	Panther Creek-28	1	4	0	1	6
7/92	Mt Baldy-67	Panther Creek-28	2	9	0	0	11
8/94	Mt Baird-67	Square Top-21	4	6	0	0	10
8/97	Mt Baird-67	Corn Lakes-21	4	6	0	0	10

**PROGRESS REPORT  
SURVEYS AND INVENTORY**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mountain Goat Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-27</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>7</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>5</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b> July 1, 2002 to June 30, 2003			

**SALMON REGION**

**ABSTRACT**

During 2002, 25 permits for mountain goats were available in nine hunt areas. Twenty-one (84%) hunters were successful and 14 (67%) of harvested animals were males. Chances of drawing a permit for mountain goats in the Salmon Region were 1:7.4 in 2002.

Aerial surveys specifically for mountain goats were conducted in Units 36 and 37A during March 2003. March surveys yielded 154 individuals, with an additional 21 observed in other units incidental to elk surveys. Conditions for observing mountain goats during March were generally good in most areas. However, high winds and weather not conducive to survey work precluded completion of surveys in the Sawtooth Mountains. Overall, number of goats observed in comparable survey areas was 11% above those of previous surveys. Among subunit areas, change in number of goats observed ranged from +42% to -24%. Overall kid ratio was 16.7 per 100 adults. The Salmon Region has approval for 10 mountain goat release sites, five of which are in designated wilderness. Sixty-one mountain goats have been released since 1989 and the Region could accommodate release of 120 additional mountain goats.

**UNITS 21, 21A, 27, 28, 29, 30, 30A, 36, 36A, 36B, 37, 37A**

**CONTROLLED HUNT AREAS 27-1, 27-2, 27-3, 27-4, 30,  
36A-1, 36A-2, 36A-3, 36A-4, 36B**

Management Direction

Follow statewide management direction. Increase population, increase nonconsumptive use of mountain goat herds, maintain harvest and recreational opportunity, and translocate mountain goats.

Background

Most herds winter at low elevations on south-facing cliffs, where mountain-mahogany (*Cercocarpus ledifolius*) is a dominant forage species. These mountain goats move to higher

elevations during summer where alpine, subalpine, or north-slope habitats are preferred. Mountain goats in Units 36 and 36A depend less on mountain-mahogany winter ranges. Most do migrate to south-facing cliffs, but some winter on high elevation ridgelines.

As with other herds in Idaho, population trends over the past 20-25 years have varied considerably among individual herds. Some herds, particularly in accessible areas, have been drastically reduced or eliminated. Other herds have declined and then recovered to near historical high numbers.

The U. S. Forest Service (USFS) administers most mountain goat habitat, but the Bureau of Land Management also manages small amounts of critical winter range. Portions of Units 21, 27, 28, and 36 are designated wilderness.

Suitable mountain goat habitats are often widely separated. Thus, movement of mountain goats into low-density areas is slow and erratic. Translocating animals may accelerate processes of repopulating vacant habitats and stimulating increases in stagnant herds.

Unit 37 appears to have potential mountain goat habitat, but this area lies outside the native range of mountain goats in Idaho. Because mountain goats have prospered following introduction into several areas outside their native range in North America, there may be potential for establishing a new herd in Unit 37. However, no inventory has been made of habitats in Unit 37 and we currently have no reliable estimate of the area's potential to support mountain goats.

### Population Surveys

Historical survey information indicates relatively wide fluctuations in mountain goat populations (Table 1). During March 2003, 154 mountain goats were observed during aerial surveys of Units 36 and 37A. These were the first survey attempts in those units since 1994 and 1998. Observed age ratio during March was 14.0 kids per 100 adults. An additional 21 mountain goats were observed during elk surveys in February 2003. Kid ratios from February observations were 40 per 100 adults.

Goat numbers in the Sawtooth Mountains were higher than during the previous survey (1994). Although surveys could not be completed in the northernmost portion of the area, numbers in comparable survey areas increased 42% (and 28% overall even considering the unsurveyed section). Fourteen (24%) fewer goats were observed in the Lemhi Range (Units 29 and 37A) compared to 1988. Across comparable survey areas, we observed an 11% increase in total mountain goat numbers.

### Harvest Characteristics

The 1991-1995 Mountain Goat Management Plan set criteria for establishing permit levels: (1) Set permit levels so annual harvest does not exceed 5% of adult segment of a herd, except 15% of adults can be harvested in highly productive herds if at least 15% of adult females are producing twins; (2) Authorize hunts only for herds consisting of  $\geq 50$  individuals.

From 1975-1982, 21 mountain goat hunts were completely closed in response to declining populations. Permits in remaining hunts were reduced to a low of 10 in 1985 (Tables 2 and 3). From 1986 to 1993, number of permits increased to 32 as several hunts were reinstated and permit levels were increased in existing hunts. In 1995, permits were reduced in hunts 36A-3 and 36A-4 and hunts 27-1 and 27-2 were closed. In 1997, hunt 27-2 was reopened with two permits. Hunt 27-4 was added in 1999 with two permits.

Harvest and hunter information was compiled from Big Game Mortality Reports (BGMRs). Successful hunters must present mountain goat horns to an IDFG representative within 10 days of harvest and complete a BGMR. Mountain goat season structure (Table 4) has been unchanged since 1991; permit levels (Tables 2 and 3) were increased by one (Hunt Area 36A-1) over 2000. Nine controlled hunts with 25 permits were authorized for 2002 in the Salmon Region. Hunters could harvest a mountain goat of either sex, except females accompanied by kids were protected. Success among 25 active hunters was 84% in 2002. Of 21 mountain goats, 14 were males. During 75-day seasons (Table 4), region-wide hunter success has averaged 89% since 1995 and males have comprised 66% of the harvest.

Prior to 1986, chances of drawing a Salmon Region mountain goat permit were very low, averaging 5%. Since 1986, hunters applying for a mountain goat permit have been restricted to only that controlled hunt application. From 1986 to 1994, drawing success substantially increased, averaging 20%. When mountain goat permit numbers were reduced in 1995, applicant numbers did not drop proportionally. Since 1995, drawing success has averaged 14%, reaching a low of 12% in 2000. Drawing odds for individual hunts vary widely from year to year.

### Climatic Conditions

Rainfall during summer months in 2002 was above average, with cool, wet weather during early summer. Vegetative growth generally appeared above average, particularly at higher elevations. Winter conditions were quite mild with temperatures well above normal and snow accumulation at lower elevations well below average. Animals, therefore, entered winter in average to above average body condition, then encountered a mild winter, which should have produced relatively high overwinter survival. Snow pack (as measured at higher elevations) was slightly above average by late winter. Onset of spring weather and associated plant phenology was apparently delayed by approximately 1-2 weeks. Water-year precipitation has been near average.

### Habitat Conditions

Mountain goat herds along Panther Creek, Bitterroot Mountains, Lemhi Range, Middle Fork Salmon River, and Squaw Creek are largely migratory. Winter ranges are low elevation, south-facing cliffs where mountain-mahogany is the dominant forage species. These mountain goats generally move to higher elevation, subalpine habitats in summer. Some mountain goats along the Idaho border summer in Montana.

During the past 15 years, elk numbers have increased dramatically throughout the Salmon Region. Portions of mountain goat winter ranges in Units 21, 21A, 27, 29, and 37A now receive

substantial use by elk during winter. Capacity of these ranges to support mountain goats may be reduced because of competition with elk.

There is little overlap between elk and mountain goats on critical winter and summer ranges in Units 36 and 36A. Habitat conditions are believed to be stable and able to accommodate some increase in mountain goat populations, primarily in Unit 36.

#### Capture and Translocation

Ten potential release sites have been approved in the Salmon Region (Table 5) with more sites pending. Since 1989, 61 mountain goats have been released within the Region (Table 6).

#### Management Implications

Most mountain goat herds in the Salmon Region generally are stable, whether or not herds are hunted. Permit levels have been adjusted to reflect current populations.

Translocation of mountain goats into historical range will continue to be a priority. Release sites along the Middle Fork Salmon River have high esthetic values because of the  $\geq 8,000$  river tourists during summer. Release sites will remain closed to hunting until populations increase to huntable levels.

Units 36 and 36A are very popular areas for human recreation during both summer and winter. Visible mountain goat herds in these units, therefore, fulfill a valuable esthetic role in addition to providing harvest. A few recreational activities, such as snowmobiling and heli-skiing, have potential to disturb wintering mountain goats in some areas. Regulation of these activities needs to be coordinated with the Sawtooth National Recreation Area.

Table 1. Summary of mountain goat surveys by Hunt Area, 1988-present.

Hunt Area	Year	Inclusive Location	Adults	Kids	Unknown	Total	Kids/100 Adults	
21	1996	Lost Trail - Hughes Cr.	8	2	0	10	25.0	
		Hughes Cr. - Horse Cr.	26	4	0	30	15.4	
27	2001	Hughes Cr. - Horse Cr.	5	1	0	6	20.0	
	1993 <sup>a</sup>	Waterfall Cr. - Goat Cr.	15	1	0	16	6.7	
27	1999 <sup>a</sup>	Big Cr. - Soldier Cr.	0	0	0	0	0.0	
		Rapid River headwaters	21	3	0	24	14.3	
		Waterfall Cr. - Goat Cr.	14	1	0	15	7.1	
	2002 <sup>b</sup>	Big Cr. - Soldier Cr.	5	1	0	6	20.0	
		Marble Cr. - Indian Cr.	18	2	0	20	11.1	
		Marble Cr. - Indian Cr.	6	1	0	7	16.7	
27-1	1988	Upper Middle Fork	11	2	0	13	18.2	
		E. Fork Mayfield Cr.	17	4	0	21	23.5	
		E. Fork Mayfield Cr.	10	1	0	11	10.0	
		E. Fork Mayfield Cr.	16	4	0	20	25.0	
		E. Fork Mayfield Cr.	17	2	0	19	11.8	
		E. Fork Mayfield Cr.	7	1	0	8	14.3	
27-2	2002 <sup>a</sup>	Mayfield Cr. - Yankee Fork	8	2	0	10	25.0	
		Trail Cr. - China Cr.	54	11	0	65	20.4	
		Trail Cr. - China Cr.	36	5	0	41	13.9	
		Trail Cr. - China Cr.	50	6	0	56	12.0	
		Trail Cr. - China Cr.	92	10	0	102	10.9	
		Trail Cr. - China Cr.	37	4	0	41	10.8	
27-3	2002 <sup>a</sup>	Trail Cr. - China Cr.	38	7	0	45	18.4	
		1993 <sup>a</sup>	Meyers Cove - Falconberry	37	7	0	44	18.9
		1999 <sup>a</sup>	Meyers Cove - Falconberry	37	4	0	41	10.8
27-4	2002 <sup>a</sup>	Meyers Cove - Falconberry	15	3	0	18	20.0	
		1993 <sup>a</sup>	Yellowjacket Cr. - Waterfall Cr.	49	8	0	57	16.3
		1999 <sup>a</sup>	Yellowjacket Cr. - Waterfall Cr.	57	6	0	63	10.5
		2001	Camas Cr. - Yellowjacket Cr.	30	7	0	37	23.3
28	2002 <sup>a</sup>	Yellowjacket Cr. - Waterfall Cr.	2	3	0	5	150.0	
		Camas Cr. - Yellowjacket Cr. <sup>b</sup>	6	0	0	6	0.0	
		1996	Cobalt - Garden Cr.	10	0	0	10	0.0
		Williams Cr.	2	2	0	4	100.0	
		Iron Cr. - Moyer Cr.	11	5	0	16	45.5	
28	1999 <sup>a</sup>	Upper Camas Cr.	5	0	0	5	0.0	
		Iron Cr. - Moyer Cr. <sup>b</sup>	21	2	0	23	9.5	
		2001	Cobalt - Garden Cr.	2	0	0	2	0.0
		Iron Cr. - Moyer Cr.	17	3	0	20	17.6	
30	2002	Napias Cr.	3	1	0	4	33.3	
		Williams Cr.	4	1	0	5	25.0	
		1988	Sheep Cr. - Goat Mt.	116	22	0	138	19.0
		1996	Sheep Cr. - Goat Mt.	81	4	0	85	4.9
		1997	Sheep Cr. - Goat Mt.	73	16	0	89	21.9
36	2002 <sup>a</sup>	Sheep Cr. - Goat Mt.	53	2	0	55	3.8	
36	1988	Beaver Cr. - Galena	32	7	0	39	21.9	

Table 1. Continued.

Hunt Area	Year	Inclusive Location	Adults	Kids	Unknown	Total	Kids/100 Adults
36-1	1994	Beaver Cr. - Galena	27	2	0	29	7.4
	2003	Beaver Cr. - Galena	38	4	0	42	10.5
	1988	Elk Cr. - Redfish Lake	27	7	0	34	25.9
	1994	Elk Cr. - Redfish Lake	22	0	0	22	0.0
	2003 <sup>c</sup>	Elk Cr. - Redfish Lake	14	5	0	19	35.7
36-2	1988	Redfish Lake - Alturas Cr.	39	7	0	46	17.9
	1994	Redfish Lake - Alturas Cr.	28	7	0	35	25.0
	2003	Redfish Lake - Alturas Cr.	44	5	0	49	11.4
36A-1	1988	E Pass Cr. - W Pass Cr.	37	13	0	50	35.1
	1994	E Pass Cr. - W Pass Cr.	38	10	0	48	26.3
	2002 <sup>a</sup>	E Pass Cr. - W Pass Cr.	28	4	0	32	14.3
36A-2	1988	Above W Pass Cr.	33	9	0	42	27.3
	1994	Above W Pass Cr.	36	7	0	43	19.4
	2002 <sup>a</sup>	Above W Pass Cr.	21	6	0	27	28.6
36A-3	1988	Warm Springs Cr. - Wickiup Cr.	61	18	0	79	29.5
	1994	Warm Springs Cr. - Wickiup Cr.	48	8	0	56	16.7
	2002 <sup>a</sup>	Warm Springs Cr. - Wickiup Cr.	22	1	0	23	4.5
36A-4	1988	Germania Cr. - 4 <sup>th</sup> July Cr.	86	21	0	107	24.4
	1994	Germania Cr. - 4 <sup>th</sup> July Cr.	65	6	0	71	9.2
	2002 <sup>a</sup>	Germania Cr. - 4 <sup>th</sup> July Cr.	33	5	0	38	15.2
36B	1985	Mill Cr. - Ramey Cr.	52	23	0	75	44.2
	1986	Mill Cr. - Ramey Cr.	37	16	0	53	43.2
	1988	Mill Cr. - Ramey Cr.	73	20	0	93	27.4
	1994	Mill Cr. - Ramey Cr.	92	23	2	117	25.0
	2002 <sup>a</sup>	Mill Cr. - Ramey Cr.	24	2	0	26	8.3
29-37A	1988	Above Patterson Cr.	9	1	0	10	11.1
		Mahogany - Patterson	21	3	0	24	14.3
		Morse Cr. - Falls Cr.	12	2	0	14	16.7
		McKim Cr. - Tater Cr.	10	1	0	11	10.0
	2003	Above Patterson Cr. & other	9	0	0	9	0.0
		Mahogany - Patterson	13	2	0	15	15.4
		Morse Cr. - Falls Cr.	7	0	0	7	0.0
		Poison Peak - Tater Cr.	13	3	0	16	23.1

<sup>a</sup> Spring green-up count.

<sup>b</sup> Incidental to elk survey.

<sup>c</sup> Incomplete survey covered Redfish Lake to Fishhook Cr.

Table 2. Summary of mountain goat harvest and drawing odds in the Salmon Region, 1993-present.

Year	No. Permits	Harvest			% Hunter Success	First Choice Applicants	Drawing Odds
		M	F	Total			
1993	32	18	7	25	78	165	1:5.2
1994	32	20	6	26	81	172	1:5.4
1995	21	13	6	19	90	158	1:7.5
1996	21	15	4	19	90	143	1:6.8
1997	22	10	8	18	82	144	1:6.5
1998	22	11	11	22	100	159	1:7.2
1999	24	17	5	22	92	140	1:5.8
2000	24 <sup>a</sup>	14	5	19	86	201	1:8.4
2001	27 <sup>a</sup>	14	9	23	85	155	1:6.2
2002	25	14	7	21	84	185	1:7.4

<sup>a</sup> Two of these permits were deferred until 2001 season because of wildfires.

Table 3. Summary of mountain goat harvest and drawing odds by Hunt Area, 1993-present.

Hunt Area	Year	Permits	Harvest		% Success	Days/ Hunter <sup>a</sup>	First Choice Applicants	Drawing Odds
			M	F				
27-1	1993	3	1	2	100	3.3	15	1:5.0
	1994	3	2	1	100	3.5	8	1:2.7
27-2	1993	3	3	0	100	6.0	23	1:7.7
	1994	3	2	1	100	9.0	15	1:5.0
	1995	Closed						
	1996	Closed						
	1997	2	2	0	100	4.0	7	1:3.5
	1998	2	1	1	100	7.0	23	1:11.5
	1999	2	1	1	100	1.5	10	1:5.0
	2000	2	1	1	100	3.0	16	1:8.0
	2001	2	0	1	50	3.0	14	1:7.0
	2002	2	2	0	100	5.5	10	1:5.0
27-3	1993	2	0	2	100	8.0	11	1:5.5
	1994	2	2	0	100	6.0	8	1:4.0
	1995	2	2	0	100	3.0	12	1:6.0
	1996	2	2	0	100	1.0	22	1:11.0
	1997	2	1	0	50	4.0	10	1:5.0
	1998	2	1	1	100	3.0	12	1:6.0
	1999	2	1	0	50	4.0	14	1:7.0
	2000	2	1	1	100	1.5	13	1:6.5
	2001	2	0	1	50	2.0	8	1:4.0
	2002	2	0	2	100	12.0	11	1:5.5
27-4	1999	2	2	0	100	4.8	13	1:6.5
	2000	2 <sup>b</sup>	0	0	-	-	13	1:6.5
	2001	4 <sup>b</sup>	1	2	75	2.7	18	1:9.0
	2002	2	0	2	100	6.0	8	1:4.0
30	1993	3	3	0	100	6.0	21	1:7.0
	1994	3	2	1	100	3.0	17	1:5.7
	1995	3	1	2	100	11.0	20	1:6.7
	1996	3	1	2	100	6.0	14	1:4.7
	1997	3	1	2	100	6.3	32	1:10.7
	1998	3	2	1	100	10.0	23	1:7.7
	1999	3	1	2	100	5.7	10	1:3.3
	2000	3	3	0	100	3.5	27	1:9.0
	2001	3	1	2	100	3.7	19	1:6.3
	2002	3	1	2	100	4.7	23	1:7.7
36A-1	1993	3	2	0	67	3.0	8	1:2.7
	1994	3	3	0	100	4.7	29	1:9.7
	1995	3	0	2	67	4.7	31	1:10.3
	1996	3	2	1	100	1.7	16	1:5.3
	1997	3	2	0	67	2.0	15	1:5.0
	1998	3	1	2	100	2.0	16	1:5.3
	1999	3	2	0	67	3.0	8	1:2.7
	2000	3	2	0	67	5.0	21	1:7.0
	2001	4	3	1	100	4.3	17	1:4.3
	2002	4	2	0	50	8.0	27	1:6.8
36A-2	1993	2	1	0	50	4.0	7	1:3.5

Table 3. Continued.

Hunt Area	Year	Permits	Harvest		% Success	Days/ Hunter <sup>a</sup>	First Choice Applicants	Drawing Odds
			M	F				
36A-3	1994	2	0	0	0	4.0	8	1:4.0
	1995	2	1	1	100	2.0	9	1:4.5
	1996	2	2	0	100	4.5	21	1:10.5
	1997	2	1	1	100	4.5	7	1:3.5
	1998	2	0	2	100	1.5	17	1:8.5
	1999	2	2	0	100	4.5	8	1:4.0
	2000	2	1	1	100	3.5	27	1:13.5
	2001	2	1	1	100	5.5	13	1:6.5
	2002	2	2	0	100	3.5	12	1:3.5
	1993	4	3	1	100	6.0	21	1:5.3
	1994	4	2	1	75	6.3	23	1:5.8
	1995	2	0	1	50	5.0	13	1:6.5
	1996	2	2	0	100	14.5	11	1:5.5
	1997	2	1	1	100	2.5	12	1:6.0
	1998	2	2	0	100	3.0	12	1:6.0
	1999	2	2	0	100	3.0	11	1:5.5
	2000	2	2	0	100	3.5	13	1:6.5
2001	2	1	0	50	2.0	14	1:7.0	
2002	2	2	0	100	2.0	15	1:7.5	
36A-4	1993 <sup>c</sup>	8	2	1	38	12.8	33	1:4.1
	1994 <sup>c</sup>	7	3	2	71	4.5	36	1:4.5
	1995 <sup>c</sup>	5	5	0	100	4.7	47	1:9.4
	1996 <sup>c</sup>	5	2	1	60	6.3	27	1:5.4
	1997	4	0	3	75	3.0	31	1:7.8
	1998	4	2	2	100	5.2	33	1:8.2
	1999	4	3	1	100	5.3	31	1:7.8
	2000	4	1	2	75	1.3	39	1:9.8
	2001	4	4	0	100	3.5	33	1:8.3
	2002	4	2	1	75	3.3	36	1:9.0
36B	1993	4	3	1	100	2.8	26	1:6.5
	1994	5	4	0	80	2.0	28	1:7.0
	1995	4	4	0	100	1.3	26	1:6.5
	1996	4	4	0	100	5.2	32	1:8.0
	1997	4	2	2	100	3.0	30	1:7.5
	1998	4	2	2	100	3.5	23	1:5.8
	1999	4	3	1	100	6.0	35	1:8.8
	2000	4	3	0	75	2.3	32	1:8.0
	2001	4	3	1	100	10.0	19	1:4.8
	2002	4	4	0	100	1.8	43	1:10.8

<sup>a</sup> From 1993-1995, data are from a telephone survey of all hunters. Beginning in 1996, data are from mandatory check of successful hunters only.

<sup>b</sup> Both permits were deferred until 2001 season.

<sup>c</sup> Archery only.

Table 4. 2002 season structure for controlled mountain goat hunts in the Salmon Region.

Hunt Area	Season		Permits
	Dates	Length (days)	
27-1	30 August - 12 November	75	2
27-2	30 August - 12 November	75	2
27-3	30 August - 12 November	75	2
30	30 August - 12 November	75	3
36A-1	30 August - 12 November	75	4
36A-2	30 August - 12 November	75	2
36A-3	30 August - 12 November	75	2
36A-4	30 August - 12 November	75	4
36B	30 August - 12 November	75	4

Table 5. Approved release sites for mountain goats in the Salmon Region.

Unit	Location	Release method	No. goats to release	No. released to date
21 <sup>a</sup>	Horse Cr.	Helicopter	30	20
21	Beartrap Springs	Vehicle	10	-
27 <sup>a</sup>	Goat Cr.	Helicopter	10-20	-
27 <sup>a</sup>	Tumble/Parrot Cr.	Helicopter	10	-
27 <sup>a</sup>	Ship Island Cr.	Helicopter	20-30	8
27 <sup>a</sup>	Jack/Wilson Cr.	Helicopter	10	7
28	Panther Cr.	Vehicle	10-20	23
28	Williams Cr.	Vehicle	10	2
29	Warm Springs Cr.	Helicopter	10-20	-
29	Haynes Cr.	Vehicle	10-20	-

<sup>a</sup> Designated wilderness, helicopter use authorized by USFS.

Table 6. Summary of mountain goat translocation in the Salmon Region, 1982-present.

Date	Capture Site-Unit	Release Site-Unit	Adults		Kids		Total
			M	F	M	F	
1982	Olympic Park, WA	Patterson Cr.-37A	8	12	0	0	20
1989	Snow Peak-9	Jack Cr.-27	0	1	0	0	1
1989	Black Mt-10	Jack Cr.-27	2	4	0	0	6
1989	Mt Baldy-67	Williams Cr.-28	1	1	0	0	2
1990	Swan Valley-67	Pine Cr.-28	1	0	0	0	1
1990	Mt Baldy-67	Panther Cr.-28	1	3	0	2	6
1991	Black Mt-10	Ship Island Cr.-27	4	4	0	0	8
1991	Mt Baldy-67	Panther Cr.-28	1	4	0	1	6
1992	Mt Baldy-67	Panther Cr.-28	2	9	0	0	11
1994	Mt Baird-67	Square Top Mt.-21	4	6	0	0	10

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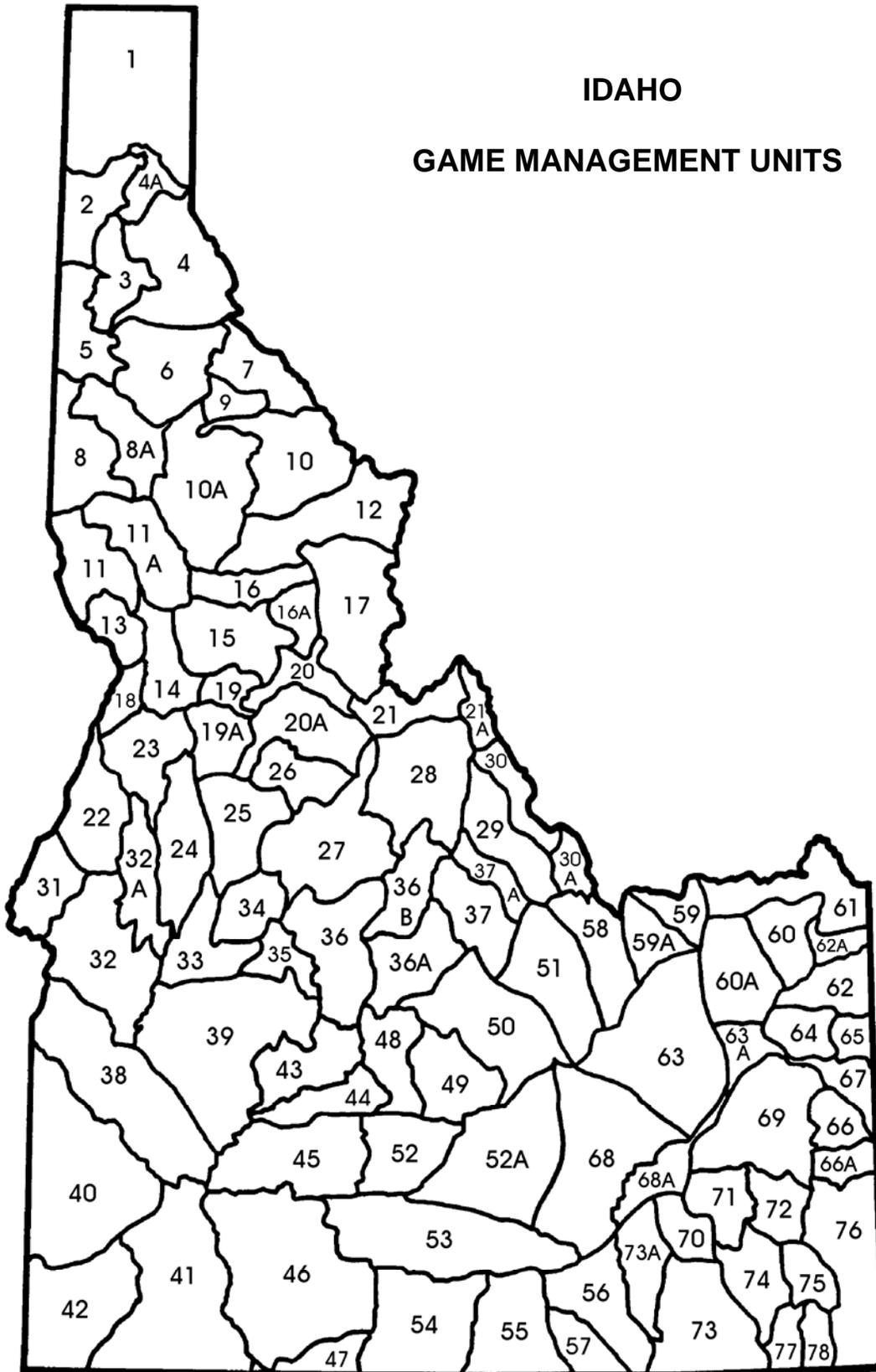
Approved by: IDAHO DEPARTMENT OF FISH AND GAME

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# IDAHO

## GAME MANAGEMENT UNITS



## FEDERAL AID IN WILDLIFE RESTORATION

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

