

**IDAHO DEPARTMENT OF FISH AND GAME**

**Steven M. Huffaker, Director**

**Project W-170-R-29**

**Progress Report**



**MOUNTAIN GOAT**

Study I, Job 5

July 1, 2004 to June 30, 2005

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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-29</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, 2004 to June 30, 2005</u>		

**STATEWIDE**

**Abstract**

The Idaho Department of Fish and Game authorized 15 controlled hunts for mountain goats in 2004, offering a total of 40 permits for mountain goat hunters (Appendix A). The 40 hunters harvested 32 mountain goats for a harvest success rate of 80%, as compared with success rates of 83% in 2003, 87% in 2002, and 89% in 2001 and 2000.

Mountain goat permits are highly sought by sportsmen. Non-resident hunters may compete with resident hunters for mountain goat permits, but are limited to successfully drawing no more than 1 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 418, a decrease of nearly 15% from the 488 applications received in 2003 (466, 431, and 509 applications were received in 2002, 2001, and 2000, respectively). All permits were awarded to first-choice applicants for a success rate of 10% as compared with 8% in 2003, 10% in 2002, 12% in 2001, and 11% in 2000. Non-resident hunters, who comprised 17% of the applicant pool (71 of 418), 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. However, surveys conducted in the White Cloud Mountain-Boulder Mountain complex in January and February 2004 (Game Management Units 36A and 48) resulted in observation of 295 mountain goats. This total included 229 adults and 66 kids (28.8 kids:100 adults), a relatively high kid:adult ratio often indicative of a growing population. This count was near the highest recorded over the last 4 decades; the previous high count was recorded in 1988. Approximately half (46%) of the mountain goats actually present in the survey area were observed during aerial surveys.

Data from these and other surveys indicated that mountain goat populations have increased substantially in a number of areas, prompting the Commission to authorize increases in mountain goat permits from 40 to 57 for the 2005 season. New hunts with 12 permits will be authorized for



2005 in Hunt Areas 27-2, 36-1, 37A, 39-1, 43, and 67, and additional permits will be offered in Hunt Areas 36A-1 (from 2 to 5), 36A-2 (from 2 to 3), and 36A-4 (from 2 to 4).

**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-29</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>1</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, 2004 to June 30, 2005</u>		

**PANHANDLE REGION**

**Units 1, 4A, 9**

**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.

**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 non-consumptive 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 translocation 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, Little North Fork Clearwater River) and 1 introduced population (Pend Oreille) of mountain goats inhabit 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 U.S. Forest

Service (USFS) 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 Panhandle Region has ranged from 0-2 mountain goats annually. However, 57 mountain goats have been translocated out of 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 translocations into the Selkirk Mountains. Subsequent to a count of only 3 mountain goats in the Selkirk Mountains in 1981, a total of 28 mountain goats were translocated 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 translocation site proposed, is essentially devoid of mountain goats, with only occasional sightings.

Mountain goat numbers in the Little North Fork 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 capture 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 translocations occurred, it may be desirable to translocate 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 translocation 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, 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, USA.

Table 1. Mountain goat surveys, Unit 1, Panhandle Region, 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. Mountain goat surveys, Unit 4A, Panhandle Region, 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. Mountain goat surveys, Unit 9, Panhandle Region, 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.

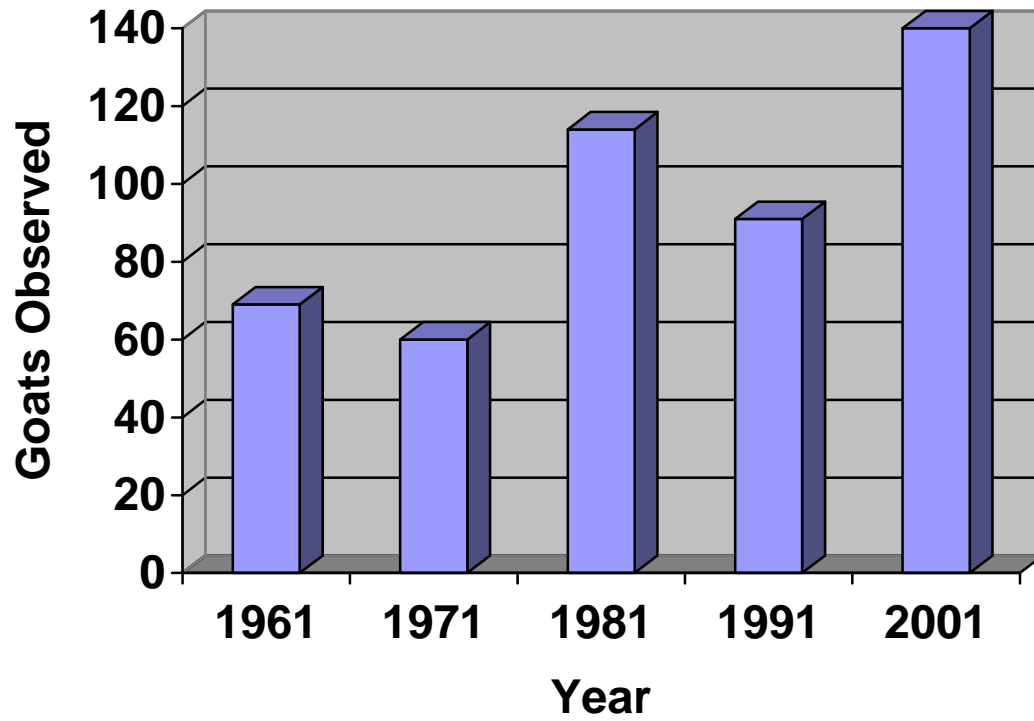


Figure 1. Comparison of aerial surveys for mountain goats, Panhandle Region, 1961-2001. Note data from 1991 includes only a partial survey of Canyon Creek.

## 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-29</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, 2004 to June 30, 2005</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 Clearwater Region remain closed because of low population levels or 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 2004, 8 permittees harvested 6 mountain goats. The most recent paintball mark-resight survey revealed population estimates of  $38 \pm 6$  adult mountain goats in Hunt Area 10-1 and  $47 \pm 18$  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 translocated into Unit 20 (Sheep Hill).

#### Management Direction

Goals for managing mountain goats in Units 10, 12, 14, 15, 16, 16A, 17, 18, 19, and 20 include increasing populations through conservative hunting seasons, capturing and translocation into vacant habitat or to augment existing populations, maintaining harvest and recreational opportunity, emphasizing non-consumptive values, inventorying all mountain goat populations at a maximum interval of 5 years, and collecting information on mountain goat diseases.

#### Climatic Conditions

Clearwater Region experienced below normal snow pack during winter 2004-2005. Clearwater River Basin was 17% of average of snow water (Oct-Jun), with total precipitation average at 75%. Meanwhile, Salmon River Basin averaged 30% of snow water also with a total precipitation average at 75% for the same time period. Snowfall was sporadic throughout winter in the Region, but most accumulation at lower elevations did not persist. This allowed big game populations to forage and move easily and probably had a positive effect on big game over-winter survival. Spring conditions consisted of heavy intermittent rain showers which allowed for good growth of big game food sources.

## **Background**

Historically, mountain goats were hunted on a general-hunt basis in Idaho north of Salmon River. As a result, some of the easily accessible herds were over-hunted 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, 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 3 hunts with 6 permits in 1984 and increased to 4 hunts with 12 permits in 1989. Beginning in 2003, only 3 hunts with 8 permits were offered in the Region (Appendix A).

### **Units 10, 12, 15, 16, 16A, 17**

#### **Controlled Hunt Areas 10-1, 10-2**

## **Population Surveys**

Population surveys were conducted during this reporting period for the Black Mountain (10-1, 10-2) goat population. Units 12 and 17 have not been surveyed since 1996 and 1994, respectively (Table 1). During April and May of 2005, we conducted a paintball, mark-resight survey of the Black Mountain (10-1 and 10-2) goat population. Data suggest a slight decline since the last survey in 2000 (Table 1). At that time, we observed  $98 \pm 17$  mountain goats over both hunt areas compared to  $85 \pm 24$  in 2005. In 1996, 136 mountain goats were observed over both hunt areas, and the decision was made to suspend translocation removals.

## **Harvest Characteristics**

Harvest levels have changed little during the last 10-year period. During 2004, 3 of 4 permittees were successful in hunts 10-1 and 10-2 (Table 2). Drawing odds for Unit 10 hunts were 1:17 in 2004, up from an average of 1:14 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.

## **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 North Fork Clearwater, Lochsa, and Selway river drainages. Nearly all of the areas that support mountain goats are under USFS ownership and management. Some commercial timberlands are located near mountain goat habitat; however, the majority of mountain goat habitat is in designated wilderness.

## **Capture and Translocation**

Since 1962, mountain goats have been captured on Black Mountain (Clearwater Region) and Snow Peak (Panhandle Region) to provide stock for translocation within the state. Clearwater Region began capturing mountain goats in the Seven Devils range in 1999 with helicopter darting. From 1962 to 2003, 102 mountain goats were translocated in Clearwater Region (Table 3). Plans to capture mountain goats at Black Mountain in 2000 were canceled because of the population decline revealed by the 2000 survey.

## **Management Implications**

Lack of population growth in Hunt Areas 10-1 and 10-2 will lead to more conservative and cautious management of exploitation. Current harvest levels (5-year average = 3.0 mountain goats/year) are below the maximum Mountain Goat Management Plan level of 5% (5 mountain goats). However, it is unlikely that removal of additional mountain goats for translocation 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 mountain goats become available.

## **Units 14, 18, 19, 20**

### **Controlled Hunt Area 18**

#### **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 total included 95 2-year-old and older goats and 12 apparent yearlings. The 14.7 goats marked/flight hour greatly exceeded previous marking rates in 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 (7 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 1). However, the 1999 estimate was imprecise, and there was concern over potential bias caused by questionable ability to identify marks. The trend in Hunt Area 18 remains questionable.

Units 19 and 20 have not been surveyed since 1993 (Table 1).

## **Harvest Characteristics**

Many of the mountain goat hunts remained closed in 2004 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 Hunt Area 18 from 1983 to 2002. In 2003, permits were reduced to 4 (Appendix A). Drawing odds for Hunt Area 18 were 1:12, down from an average of 1:12.7 over the previous 10 years. In 2004, the 4 permittees harvested 3 mountain goats (Table 2).

## **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 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.

## **Capture and Translocation**

Twenty-five mountain goats captured at Snow Peak, Unit 9, and at Olympic National Park, Washington, have been translocated into Unit 18 since 1962 (Table 3). With growth in the mountain goat population in the Seven Devils area, the Dry Diggins lookout was evaluated as a potential capture site for mountain goats as early as 1987. Subsequent efforts with clover traps in 1991 and 1993 resulted in the capture of only 1 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 (6 nannies) could be removed every other year for translocation.

Eighteen goats were captured and subsequently released along Big Mallard Creek in Unit 20 in 1999 and 2001. Ten goats were collared with radio-transmitters. Of these, 5 have died since release while 5 still have active transmitters. Sixteen goats were captured and translocated in 2003 to Sheep Hill in Unit 20. Six were released with radio-transmitters.

## **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 (6 nannies) could be removed for translocation 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. Mountain goat surveys, Clearwater Region, 1981-present.

Unit	Year	Inclusive location	Adults	Kids	Unknown	Total	Kids/100 adults
10	1991	Flat Mtn to Elizabeth Mtn	14	3	0	17	21.4
		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
		Isabella Creek (10-1)	50	13	0	63	26.0
		Collins to Quartz Creek (10-2)	73	15	0	88	20.5
		1991 Total	200	38	0	238	19.0
	1996	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
		Isabella Creek (10-1)	48	13	0	61	27.1
		Collins to Quartz Creek (10-2)	61	14	0	75	23.0
		1996 Total	163	31	0	194	19.0
	2002 <sup>a</sup>	Isabella Creek (10-1)	54±12			54±12	
		Collins to Quartz Creek (10-2)	44±5			44±5	
	2005 <sup>a</sup>	Isabella Creek (10-1)	38±6			38±6	
Collins to Quartz Creek (10-2)		47±18			47±18		
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>b</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	27.3
		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>b</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	

Table 1. Continued.

Unit	Year	Inclusive location	Adults	Kids	Unknown	Total	Kids/100 adults
17	1991	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
		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>b</sup>						
	Grouse Creek/Running Creek	0	0	0	0	0.0	
	Stewart Creek	0	0	0	0	0.0	
	1994 Total	122	44	0	166	36.1	
	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	18.9		
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		



Table 1. Continued.

Unit	Year	Inclusive location	Adults	Kids	Unknown	Total	Kids/100 adults
19	1993	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
		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
	1996	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
		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
1999 <sup>c</sup>	1996 Total	61	7	0	68	11.5	
	1999 Total	171±48	61±44	0	237±67	34.5	
	2002 Total	196±22					
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>b</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>b</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		

Table 1. Continued.

Unit	Year	Inclusive location	Adults	Kids	Unknown	Total	Kids/100 adults
	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> Paintball mark-resight survey (Apr-May).

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

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

Table 2. Mountain goat harvest and drawing odds by hunt area, Clearwater Region, 1994-present.

Hunt area	Year	Permits	Harvest		Hunter success (%)	Days/hunter <sup>a</sup>	First-choice applicants	Drawing odds	
			M	F					
10-1	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	
	2003	2	1	0	50	7.0	42	1:21.0	
	2004	2	1	0	50	14.0	43	1:21.5	
	10-2	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	
2003		2	0	1	50	9.0	28	1:14.0	
12 <sup>b</sup>	2004	2	1	1	100	5.5	27	1:13.5	
	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	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	
	2003	4	2	1	75	2.3	55	1:13.8	
2004	4	1	2	75	4.0	48	1:12.0		

<sup>a</sup> Prior to 1996, data are from a telephone survey of all hunters. Beginning in 1996, data are from mandatory check of successful hunters only.

<sup>b</sup> Unit 12 was closed in 1997.

Table 3. Mountain goat translocation, 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

**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-29</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>3, Nampa</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, 2004 to June 30, 2005</u>		

**SOUTHWEST (NAMPA) REGION**

**Units 33, 34, 35, 39**

**Abstract**

Mountain goat surveys were conducted in parts of Units 35 and 39 in February 2004. We observed 99 mountain goats (81 adults and 18 kids) in Unit 35 and 116 mountain goats (92 adults and 24 kids) in Unit 39. No mountain goat hunting has been allowed in Units 35 or 39 since 1981. A new hunt with 2 permits will be held in fall 2005 in a portion of Unit 39.

**Management Direction**

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

**Background**

Although historically, Units 35 and 39 had controlled mountain goat hunts, there has been no mountain goat season in either unit since 1981. Unit 35 had 3 hunt areas with a total of 15 any-weapon permits and 15 archery permits. Average annual harvest for the last 5 years was 8 mountain goats. Unit 39 had 3 hunt areas with a total of 17 any-weapon permits. Average harvest for the last 5 years was 7 mountain goats.

**Population Surveys**

Parts of Units 35 and 39 were surveyed for mountain goats from 10-13 February 2004 (Table 1). The survey was conducted in a Bell 47 Soloy helicopter with the pilot and two observers. Whereas prior surveys in these areas were conducted during spring, when intermixed snow and green-up conditions persisted, survey conditions for this winter count were ideal. Fresh snowfall the day prior to the start of our survey provided ideal tracking conditions. Fresh tracks were easily spotted from the air and could quickly be followed to the mountain goat(s) that made them. Results of this survey suggest that future surveys for mountain goats should be conducted during winter under appropriate weather conditions rather than during spring.

Total number of mountain goats observed by area varied widely in comparison to past counts. Counts in the Grandjean and Atlanta hunt areas were the highest in over 20 years; however, populations in other hunt areas appear to have declined or are remaining at very low levels. Higher counts in the 2004 survey may partly be a result of the ideal survey conditions in 2004 compared to prior years, rather than conclusive evidence of a population increase. However, 2004 counts provide strong evidence that other herd units have declined dramatically (e.g., Steel Mountain and North Fork Boise River [Table 1]). In summer 2003, wildfire burned through the forested habitat surrounding most mountain goat range and into the grasses and intermittent shrubs and trees throughout cliff areas used by mountain goats in North Fork Boise River and Steel Mountain areas. Habitat disturbance may have been responsible for the observed declines.

### **Harvest Characteristics**

There has been no mountain goat hunting in Units 35 or 39 since 1981. A new hunt with 2 permits has been established for that portion of Unit 39 in Middle Fork Boise River drainage upstream from, and including, Queen's River and Yuba River drainages.

### **Management Implications**

We will consider providing additional mountain goat hunting opportunity in the future in hunt areas that meet minimum requirements to establish a hunt as defined in the 1991-1995 Mountain Goat Management Plan. All other areas will remain closed.

Table 1. Mountain goat surveys, Southwest (Nampa) Region, 1976-present.

Unit	Inclusive location	Year	Adults	Kids	Total	Kids/100 adults
35	Grandjean	1976	119	29	148	24.4
		1981	106	23	129	21.7
		1988	61	10	71	16.4
		1994	18	4	22	22.2
		2004	71	16	87	22.5
	Warm Springs Creek	1980	23	10	33	43.5
		1988	32	14	46	43.8
		1994	2	1	3	50.0
		2004	6	2	8	33.3
	Ten Mile Creek	1980	6	1	7	16.7
		1988	11	4	15	36.4
		1994	1	0	1	0.0
		2004	2	0	2	0.0
39	Atlanta	1977	65	14	79	21.5
		1981	47	9	56	19.1
		1988	41	9	50	22.0
		1994	25	1	26	4.0
		2004	75	21	96	28.0
	Steel Mountain	1977	4	1	5	25.0
		1981	12	2	14	16.7
		1988	14	5	19	35.7
		2004	0	0	0	0.0
	N Fork Boise River	1977	17	6	23	35.3
		1981	37	10	47	27.0
		1994	23	4	27	17.4
		2004	16	2	18	12.5

**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-29</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, 2004 to June 30, 2005</u>		

**SOUTHWEST (MCCALL) REGION**

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

**Abstract**

A new hunt was created with 4 permits in Unit 22 for the 2003 and 2004 mountain goat hunting seasons. Hunters harvested 3 goats for a 75% success rate in 2004. No population surveys were conducted during the reporting period.

**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 3 controlled hunt areas with a total of 13 permits the last year hunting was authorized (1979). All 3 hunts were discontinued in 1980. Unit 25 also had 3 controlled hunt areas. Hunting was discontinued in one area in 1979 and in 1980 in the other areas. A total of 7 permits were issued the last year hunting was allowed. Unit 26 had 2 controlled hunt areas. By 1980, hunting was discontinued in both hunt areas. A total of 5 permits were issued the last year hunting was allowed in both areas.

The Unit 22 population had 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, which indicated the goat population continued to expand, the Commission approved a separate hunt area for all of Unit 22 with 4 permits for the 2003 and 2004 hunting seasons (Appendix A).



## **Population Surveys**

No population surveys were conducted during the reporting period. The most recent helicopter aerial population survey of mountain goats was conducted between 11-17 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 a portion of Unit 23 of Southwest Region and harvest is reported with the Unit 18 harvest in Clearwater Region. Four permits were issued for a goat hunt in Unit 22 in 2004. A total of 3 goats were harvested for a 75% success rate (Table 2). The maximum horn length recorded from this harvest was 10.0 inches. No other mountain goat hunting occurred in Southwest Region during the reporting period.

## **Management Implications**

The McCall sub-region accounted for 8 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 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 4 permits for the 2003 and 2004 hunting seasons.

Mountain goat translocation 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 sub-region, if not in the state.

Table 1. Mountain goat surveys, Southwest (McCall) Region, 1982-present.

Unit	Year	Adults	Kids	Total	Kids/100 adults
20A	1982	35	11	46	31.4
	1990	35	5	40	14.3
	2003	9	2	11	22.2
22	1996	44	5	49	11.4
	2002	45	9	54	20.0
25	1982	52	7	59	13.5
	1990	21	6	27	28.6
	2003	7	2	9	28.6
26	1982	34	6	40	17.6
	1990	35	6	41	17.1
	2003	24	10	34	41.7

Table 2. Mountain goat harvest and drawing odds, Southwest (McCall) Region, 2003-present.

Hunt area	Year	Permits	Harvest		Hunter success (%)	Days/ hunter	First-choice applicants	Drawing odds
			M	F				
22	2003	4	3	1	100	1.8	51	1:12.8
22	2004	4	3	0	75		32	1:8.0

**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-29</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>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>5</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 2004 to June 30, 2005</u>		

**MAGIC VALLEY REGION**

**Units 43, 48, 49**

**Controlled Hunt Area 48**

**Abstract**

Aerial surveys were conducted in Unit 49 during this reporting period. These surveys indicated that goat populations had increased slightly since the 2000 survey. Two permits were issued in Hunt Area 48 during 2004, and 1 hunter successfully harvested a mountain goat.

**Management Direction**

Follow statewide management direction, encourage the 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, 4 controlled hunt permits (2 hunt areas) were authorized and from 1991-1994, 3 permits (1 hunt area) were authorized. Helicopter surveys conducted in 1994, 1996, 2001, and 2004 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 2 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 was closed in 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 in Hunt Area 50 with 2 permits. Information on this hunt is presented under Controlled Hunt Area 50 in the Upper Snake Region section of this report.

From 1981-1986, 4 permits were issued in 2 hunt areas for Unit 48 (1 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 2 hunts each with 2 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, 2 permits have been authorized annually in 1 hunt area that includes all of Unit 48 (Appendix A).

### **Population Surveys**

An aerial survey of all suitable habitat in Unit 49 was conducted from 31 July-3 August 2004 (Table 1). Good weather conditions allowed completion of the survey on consecutive days. Thirty-two mountain goats were observed (100 adults:9.4 juveniles) in Unit 49. The total number of goats observed during 2004 was slightly higher than the number observed on the 2000 census; this increase was also reflected in slightly higher juvenile-to-adult ratios in 2004. Because Unit 49 is combined with Unit 50 into a single hunt area, current goals and population levels will continue to allow some minimal harvest opportunity in this unit.

### **Harvest Characteristics**

In 2004, 1 of the 2 mountain goat permittees in Unit 48 was successful. The successful hunter harvested a 10½-year-old male mountain goat in 3 days of hunting. Drawing odds in the Unit 48 hunt (Table 2) averaged 13% from 1993-2004.

### **Capture and Translocation**

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

### **Management Implications**

Results of the 2004 aerial survey in Unit 43 suggest that mountain goat numbers have remained stable since the last survey. Production did improve substantially over 2001, but total population levels still remain relatively low and the potential for harvest is limited. Unit 48 remains the most productive mountain goat unit in Magic Valley Region. Results of the 2004 survey in Unit 48 indicate mountain goat numbers have decreased somewhat since the 2001 census; however, production remained relatively high. 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 non-consumptive value.

Hunting will remain closed in Unit 43 until aerial survey data indicates population increases in this and adjacent units. 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 2 until data becomes available to suggest a change. Because of an increased number of mountain goats observed in 2000 in Unit 49, hunting was authorized starting in 2001. Permit levels remained at 2 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. This 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. Mountain goat surveys, Magic Valley Region, 1981-present.

Unit	Year	Inclusive location	Adults	Kids	Unknown	Total	Kids/100 adults
43	1981		69	20	0	89	29.0
	1990		67	21	0	88	31.3
	1994		21	4	0	25	19.0
	1996		25	7	0	32	28.0
	2001		26	2	0	28	7.7
	2004		21	6	0	27	28.6
48	1981	That portion west of N. Fork Big Wood River and north of Hwy 75	18	3	0	21	16.7
		That portion west of Hwy 75 and north of Baker Creek	19	2	0	21	10.5
		That portion east of Hwy 75 and south of Trail Creek Road, and that portion of Unit 49 west of the Little Wood River	21	1	5	27	4.8
	1985	That portion west of N. Fork Big Wood River and north of Hwy 75	26	8	0	34	30.8
	1990		43	16	0	59	37.2
	1994		52	13	0	65	25.0
49	2001		55	14	0	69	25.5
	2004		44	12	0	56	27.3
	1992		8	2	0	10	25.0
	2000		22	1	0	23	4.5
	2004		32	3	0	35	9.4

Table 2. Mountain goat harvest and drawing odds by hunt area, Magic Valley Region, 1983-present.

Hunt area	Year	Permits	Harvest		Hunter success (%)	Days/hunter <sup>a</sup>	First-choice applicants	Drawing odds
			M	F				
43 <sup>b</sup>	1983	4	2	0	50	4.3	51	1:12.8
	1984	4	1	2	75	3.0	46	1:11.5
	1985	4	0	3	75	3.5	72	1:18.0
	1986	4	1	3	100	3.0	24	1:6.0
	1987	4	1	3	100	5.3	15	1:3.8
	1988	4	3	0	75	8.0	16	1:4.0
	1989	4	3	0	75	3.5	19	1:4.8
	1990	4	1	2	75	9.3	14	1:3.5
	1991	3	0	1	33	6.7	18	1:6.0
	1992	3	0	1	33	3.7	7	1:2.3
	1993	3	1	2	100	5.3	14	1:4.7
	1994	3	1	2	100	5.5	11	1:3.7
	48	1983	4	2	1	75	2.0	80
1984		4	3	1	100	4.5	50	1:12.5
1985		4	1	3	100	1.5	92	1:23.0
1986		4	1	3	100	10.3	11	1:2.8
1987		4	4	0	100	7.0	22	1:5.5
1988		4	4	0	100		16	1:4.0
1989		4	3	1	100	4.3	21	1:5.3
1990		4	3	1	100	2.5	11	1:2.8
1991		2	1	0	50	8.0	18	1:9.0
1992		2	1	0	50	2.0	8	1:4.0
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	
2003	2	2	0	100	3.0	24	1:12.0	
2004	2	1	0	50	3.0	18	1:9.0	

<sup>a</sup> Prior to 1996, data are from a telephone survey of all hunters. Beginning in 1996, data are from mandatory check of successful hunters only.

<sup>b</sup> Unit 43 has been closed to hunting since 1995.

**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-29</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, 2004 to June 30, 2005</u>		

**UPPER SNAKE REGION**

**Abstract**

Five distinct populations of mountain goats occur in Upper Snake Region. These include Pioneer Mountains (Units 49 and 50), South Lemhi Range (Units 51 and 58), Red Conglomerates (Unit 59), Italian Peaks (Unit 59A), and Snake River Range (Unit 67).

Mountain goat hunting opportunity has been reduced substantially in recent years. In Upper Snake Region, we have gone from a high of 5 hunt areas and 40 total permits in the late 1980s and early 1990s to just 2 hunts with 8 total permits offered in 2004. Out of the 8 permits offered, 5 mountain goats were harvested (63% success) as determined by mandatory harvest reports. Drawing odds were 1:9.5 (Hunt Area 50) and 1:11.8 (Hunt Area 51). The reduction of tags is due to dramatic declines in mountain goat populations over the last 15 years in Upper Snake Region. This population decline led to the closure of 3 hunt areas.

In early September 2002, population surveys were flown in Hunt Areas 59 and 59A. 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 in 1994. The declines in these populations resulted in the closure of both hunts (59 in 1995 and 59A in 2002). During the 2002 survey, an attempt was made to survey the entire population of goats in both Idaho and Montana. In addition to the traditional area surveyed (Beaverhead Range from Italian Peak to Ten Mile Creek), the mountain range from Ten Mile Creek, Idaho and Morrison Lake, Montana was surveyed. Within this area, an additional 6 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. The kid:100 adult ratio had declined from 39.1 in 1994 to 22.2 in 2002. Reasons for these declines are still poorly understood.

In Unit 67, a population survey was also conducted in 2002. Forty-two goats (35 adults, 7 kids) were counted from Palisades Creek to the Wyoming border and none north and west of Palisades Creek during the mid-August survey. 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 existed. Kid:100 adult ratios had 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 these declines is poorly understood.

### **Climatic Conditions**

Spring and summer weather conditions during 2004 were cooler and much wetter than normal. Winter precipitation was below normal and temperatures were warmer than normal. The spring of 2005 has also seen better precipitation levels.

## **Units 49, 50**

### **Controlled Hunt Area 50**

#### **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 Trail Creek Road and south and west of U.S. Highway 93) was reopened with 5 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 (Appendix A) in 2001.

#### **Population Surveys**

A helicopter survey was conducted in Unit 50 in August 2004 (Table 1). The total number of mountain goats counted (38) in the Hunt Area 50 portion of the unit was lower than the total accounted for on the 2 next most recent surveys (50 in 1999 and 49 in 1992), but was likely due to more goats being present on the Unit 49 side of the mountain near the border. The recent count is only 41% of the total counted on the 1985 survey (92). The kid:adult ratio decreased to 16:100 and no goats were found in the White Knob Mountains.

The most recent population survey in Unit 49 was conducted in 2004 and accounted for 34 goats (31 adults, 3 kids). The next most recent population survey in Unit 49 was conducted in 2000 and accounted for 23 goats (22 adults, 1 kid). The overall population in Hunt Area 50 appears to be stable in recent history.

#### **Harvest Characteristics**

Two permits were issued in Hunt Area 50 in 2004 (Tables 2 and 3), resulting in the harvest of 2 mountain goats (100% hunter success). One goat harvested was male and 1 female. Drawing odds were 1:9.5 in 2004. Mean age of harvested goats was 5. Mean horn length was 7.34", and mean circumference was 4.34". Mean days hunted was 2.

## **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 Upper Snake Region. The 2 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.

## **Capture and Translocation**

No capture and/or translocation operations have been conducted in Unit 50.

## **Management Implications**

Permits in Hunt Area 50 were reduced from 5 to 2 in 1993 based upon results of the 1992 population survey. Mountain goat numbers accounted for on the 3 most recent population surveys (August 2004, August 1999, February 1992) place this hunt at slightly over the minimum population level for a unit to sustain a hunt according to 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**

## **Background**

Mountain goats are native to these ranges. Reports of observations of 1 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: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 1).

From 1983-1986, 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 2 hunt areas and hunter densities were not a problem.

One controlled hunt (Appendix A) with a total of 6 permits was held in these units in 2004.

## **Population Surveys**

A population survey was most recently flown in Hunt Area 51 in August 2000. A total of 157 mountain goats with a kid:adult ratio of 26:100 was counted (Table 1). 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 August 2001 and again in September 2002 (Table 1). 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 1). 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 (4 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 1). 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, 6 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 6 permits were issued for Hunt Area 51 in 2004 (Tables 2 and 3). Only 4 hunters were successful in harvesting mountain goats (66% hunter success), based on mandatory harvest reports. Two goats harvested in Hunt Area 51 were male and 2 were female. Drawing odds were 1:11.8 for Hunt Area 51 in 2004. Mean age of harvested goats was 6.5. Mean horn length was 8.9", and mean circumference was 4.34". Mean days hunted was 4.5.

## **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.

## **Capture and Translocation**

No capture and/or translocation 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 5 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 4 to 6. 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 and differences in population performance of relatively close populations are unknown.

### **Unit 67**

#### **Controlled Hunt Area 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 4 permits in 1986, resulting in a net increase of 6 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 capturing mountain goats from the Mt. Baldy and Mt. Baird populations for statewide translocation, 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 to consist of only 1 hunt with 3 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 1).

Surveys have been conducted in Unit 67 on a fairly frequent basis. An aerial population survey was conducted on this mountain goat population 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 (Table 1). This survey was disappointing in that no goats could be found in

the Mt. Baldy portion of Unit 67 (Table 1). 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 used this area. The count previous to 2002 in this area was a helicopter count conducted in 2000 that accounted for 90 mountain goats. This population had shown a steady decline from 217 (the historical high count) down to 42 since 1996. Reasons for this decline are largely unknown and the hunt was closed in 2003.

The most recent survey in Unit 67 occurred in August 2004 and had some surprising results. Mountain goat numbers had jumped substantially to 114 animals observed. This represents a 171% population increase in 2 years. Although this seems unrealistic and may be representing sightability error, it is very interesting to note that immediately over the state line in Wyoming, biologists noted a very similar population change. The state line runs across the mountain range and the goat populations in the 2 states could biologically be considered as 1. The Wyoming goats originated from Idaho introductions. Wyoming counted 55 goats in 2002 and 121 goats in 2004, a 120% increase. Surveys in the 2 states were timed and conducted similarly but with different pilots and observers. During the 2004 Idaho survey, goats were again observed in the Mt. Baldy area with a total of 6 animals. The increased count prompted the Department to reopen the Unit 67 hunt with a conservative 2 permits beginning fall 2005 in the area between Palisades Creek and the Wyoming border (this excludes the Mt. Baldy area).

Another survey was conducted in February 2005 to address impacts of a proposed expansion of a heli-skiing operation. During this survey, 74 goats were observed in Idaho and data was gathered on locations of wintering goats and signs of winter recreation. We not only learned heli-skiing activities would be detrimental to mountain goats but that snowmobiling activity is reaching far into mountain goat wintering habitat and is a serious concern.

### **Harvest Characteristics**

The dramatic decrease in goats counted in the Mt. Baird portion of Unit 67 in 2002, and the absence of goats in the Mt. Baldy portion resulted in the closure of this unit to hunting beginning with the 2003 season (Table 3). Reasons for these declines are unknown.

### **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 huge negative impacts for this goat population.

### **Capture and Translocation**

Several efforts to translocate mountain goats from the Mt. Baldy and Mt Baird populations were made between 1989 and 1997. Mountain goats were captured in clover traps using salt as bait and some were net-gunned. A total of 46 mountain goats were removed from the area during 6 capture 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 capturing mountain goats for translocation operations, precipitated a reduction in permits and a restructuring of Unit 67 mountain goat hunts in 1991. The 2 hunts were combined in 2001 and permits were reduced to 3.

The largest number of mountain goats (217) counted in the Mt. Baird area of Unit 67 was observed on the 1996 survey flight. 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 captured and provided for statewide translocation operations. However, the Mt. Baird goat population has declined more precipitously than management actions would dictate, and the lack of goats found in the Mt. Baldy portion of Unit 67 during the 2002 survey is very disappointing. Survey results subsequent to 1996 indicated a decrease to 163 in 1998, 90 in 2000, 42 in 2002, and a jump to 107 in 2004. Reasons for that decline and slight rebound are still unknown. The hunt was closed for the 2003 and 2004 seasons and reopened for the 2005 and 2006 seasons, and the situation will be monitored closely.

### **Literature Cited**

HAYDEN, J. A. 1989. Status and population dynamics of mountain goats in the Snake River Range, Idaho. Thesis, University of Montana, Missoula.

Table 1. Mountain goat surveys, Upper Snake Region, 1982-present.

Unit	Inclusive location	Year	Adults	Kids	Unknown	Total	Kids/100 adults	
49	(in Hunt Area 50)	1992	8	2	0	10	25.0	
		2000	22	1	0	23	4.5	
		2004 <sup>a</sup>	31	3	0	34	9.6	
50	That portion north and west of the Trail Creek Road and south and west of U.S. Highway 93 (in Hunt Area 36A-1)	1982 <sup>a</sup>	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	
		2004 <sup>c</sup>	13	3	0	16	23.1	
		That portion south and east of the Trail Creek road and south and west of U.S. Highway 93 (in Hunt Area 50)	1982 <sup>a</sup>	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		
51	Lemhi Range South of the Big Timber Creek drainage	1999 <sup>a</sup>	40	10	0	50	25.0	
		2004 <sup>a</sup>	31	7	0	38	22.6	
		1982 <sup>a</sup>	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	
59	Red Conglomerates	1992 <sup>a</sup>	54	7	0	61	13.0	
		2000 <sup>a</sup>	125	32	0	157	25.6	
		1986 <sup>a</sup>	32	14	0	46	43.8	
		1994 <sup>a</sup>	14	11	0	25	78.6	
59A	Italian Peaks	2001 <sup>a</sup>	0	0	0	0		
		2002 <sup>a</sup>	0	0	0	0		
		1982 <sup>a</sup>	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	
67	South of Palisades Creek (Mt. Baird area)	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	
		1982 <sup>a</sup>	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	
67	North of Palisades Creek (Mt. Baldy area)	2000 <sup>a</sup>	61	29	0	90	47.5	
		2002 <sup>a</sup>	35	7	0	42	20.0	
		2004 <sup>a</sup>	84	24	0	108	28.5	
		2005 <sup>c</sup>	47	15	0	62	31.9	
		1982 <sup>a</sup>	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	

Table 1. Continued.

Unit	Inclusive location	Year	Adults	Kids	Unknown	Total	Kids/100 adults
		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
		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	
		2004 <sup>a</sup>	4	2	0	6	50.0
		2005 <sup>c</sup>	8	4	0	12	50.0

<sup>a</sup> Helicopter count.

<sup>b</sup> Ground count.

<sup>c</sup> Winter Helicopter count.



Table 2. Mountain goat harvest and drawing odds, Upper Snake Region, 1981-present.

Year	Permits	Harvest			Hunter success (%)	First-choice applicants	Drawing odds
		M	F	Total			
1981	3	1	1	2	67	122	1:40.7
1982	3	1	1	2	67	149	1:49.7
1983	15	7	4	11	73	396	1:26.4
1984	19	11	8	19	100	350	1:18.4
1985	19	10	6	16	84	426	1:22.4
1986	30	21	5	26	87	220	1:7.3
1987	40	25	14	39	98	259	1:6.5
1988	40	25	11	36	90	297	1:7.4
1989	40	20	17	37	93	233	1:5.8
1990	40	25	9	34	85	284	1:7.1
1991	29	17	11	28	97	273	1:9.4
1992	29	16	11	27	93	226	1:7.8
1993	27	18	6	24	89	203	1:7.5
1994	27	15	11	26	96	223	1:8.3
1995	22	6	6	12	55	214	1:9.7
1996	22	14	4	18	82	198	1:9.0
1997	35	17	12	29	83	266	1:7.6
1998	35	15	11	26	74	243	1:6.9
1999	21	11	7	18	86	205	1:9.8
2000	21	12	7	19	90	191	1:9.1
2001	16	11	4	15	94	160	1:10.0
2002	11	8	3	11	100	116	1:10.5
2003	8	6	2	8	100	117	1:14.6
2004	8	3	3	6	75	90	1:11.2

Table 3. Mountain goat harvest and drawing odds by hunt area, Upper Snake Region, 1994-present.

Hunt area	Year	Permits	Harvest		Hunter success (%)	Days/hunter <sup>a</sup>	First-choice applicants	Drawing odds	
			M	F					
50	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	
	2003	2	2	0	100	1.0	35	1:17.5	
	2004	2	1	1	100	2.0	19	1:9.5	
51	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	
	2003	6	4	2	100	3.9	82	1:13.6	
	2004	6	2	2	66	4.5	71	1:11.8	
59A	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 <sup>b</sup>	5	2	2	80	4.5	34	1:6.8	
	67	1994	13	8	5	100	3.1	119	1:9.2
		1995	11	3	0	27	6.6	129	1:11.7
1996		11	7	2	82	2.9	118	1:10.7	
1997		24	11	9	83	3.0	192	1:8.0	
1998		24	7	9	67	6.2	150	1:6.3	
1999		10	4	5	90	3.0	105	1:10.5	
2000		10	5	4	90	4.1	83	1:8.3	
2001		3	2	1	100	5.7	49	1:16.3	
2002 <sup>b</sup>	3	3	0	100	10.3	45	1:15.0		

<sup>a</sup> Prior to 1996, data are from a telephone survey of all hunters. Beginning in 1996, data are from mandatory check of successful hunters only.

<sup>b</sup> Unit 59A was closed beginning in 2002 and Unit 67 was closed beginning in 2003.

Table 4. Mountain goat translocation, 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-29</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> <u>July 1, 2004 to June 30, 2005</u>			

**SALMON REGION**

**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**

**Abstract**

During 2004, 18 permits for mountain goats were available in 8 hunt areas. Seventeen (94%) hunters were successful and 12 (71%) harvested animals were males. Chances of drawing a permit for mountain goats in Salmon Region were 1:8.9 in 2004.

Aerial surveys specifically for mountain goats were conducted in Units 21 and 28 during January-February 2005. Surveys yielded 111 individuals with an overall kid ratio of 27.6 per 100 adults.. Conditions for observing mountain goats were fair in Units 21 and 28. However, survey work in Unit 36B was cancelled because of insufficient snow cover. Overall, number of goats observed in comparable survey areas was 26% above that of previous surveys. Among subunit areas, change in number of goats observed ranged from +13% to +46%. Salmon Region has approval for 10 mountain goat release sites, 5 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.

**Management Direction**

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

**Climatic Conditions**

Following a winter of below average precipitation, spring and summer rainfall was above average. Vegetative growth appeared average to above average. Winter conditions were very mild with precipitation approximately 65% of normal. Animals entered winter in very good body

condition; coupled with mild winter conditions, over-winter survival was above average. Although plant phenology was advanced during early spring, subsequent cooler temperatures slowed plant growth, bringing about near normal vegetative conditions by April. Water-year precipitation to date has been approximately 75% of normal.

## **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 most 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 or above historical high numbers.

The 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.

## **Population Surveys**

Historical survey information indicates relatively wide fluctuations in mountain goat populations (Table 1). During early 2005, 111 mountain goats were observed during aerial surveys of Units 21 and 28. Observed age ratio was 27.6 kids per 100 adults.

Mountain goat numbers (83) in Units 21 and 28 combined were the highest recorded, indicating increases since previous surveys. The ratio of kids per 100 adults in Unit 21 was 28.6, whereas we observed 35.7 kids per 100 adults in Unit 28. Surveys planned for Unit 36B were cancelled because of poor survey conditions. Across comparable survey areas, we observed a 26% 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, the number of permits increased to 32 as several hunts were reinstated and permit levels were increased in existing hunts. Permit levels for 2004 were unchanged from 2003.

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 (Appendix A) has been unchanged since 1991. Eight controlled hunts with 18 permits were authorized for 2004 in Salmon Region. Hunters could harvest a mountain goat of either sex, except females accompanied by kids were protected. Success among 18 active hunters was 94% in 2004. Of 17 mountain goats, 12 were males. During 75-day seasons, region-wide hunter success has averaged 88% since 1995 and males have comprised 67% 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 11% in 2003 and 2004 because of further reductions in available permits. Drawing odds for individual hunts vary widely from year to year.

### **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 Salmon Region. Portions of mountain goat winter ranges in Units 21, 21A, 27, 29, 30, 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. However, vegetation changes related to succession and climate change may negatively impact carrying capacity in alpine and subalpine habitats.

### **Capture and Translocation**

Ten potential release sites have been approved in Salmon Region (Table 4) with more sites pending. Since 1989, 61 mountain goats have been released within the Region (Table 5).

## **Management Implications**

Most mountain goat herds in 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 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 staff of the Sawtooth National Recreation Area.

Table 1. Mountain goat surveys by hunt area, Salmon Region, 1988-present.

Hunt area	Year	Inclusive location	Adults	Kids	Unk.	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
	2001	Hughes Cr. - Horse Cr.	5	1	0	6	20.0
	2005	Lost Trail - Hughes Cr.	7	2	0	9	28.6
		Hughes Cr. - Horse Cr.	28	8	0	36	28.6
27	1993 <sup>a</sup>	Waterfall Cr. - Goat Cr.	15	1	0	16	6.7
		Big Cr. - Soldier Cr.	0	0	0	0	0.0
	1999 <sup>a</sup>	Rapid River headwaters	21	3	0	24	14.3
		Waterfall Cr. - Goat Cr.	14	1	0	15	7.1
		Big Cr. - Soldier Cr.	5	1	0	6	20.0
	2002 <sup>b</sup>	Marble Cr. - Indian Cr.	18	2	0	20	11.1
		Marble Cr. - Indian Cr.	6	1	0	7	16.7
		Upper Middle Fork	11	2	0	13	18.2
	2004	Waterfall Cr. - Goat Cr.	15	2	0	17	13.3
		Big Cr. - Soldier Cr.	4	0	0	4	0.0
27-1	1988	E. Fork Mayfield Cr.	17	4	0	21	23.5
	1994	E. Fork Mayfield Cr.	10	1	0	11	10.0
	1995	E. Fork Mayfield Cr.	16	4	0	20	25.0
	1997	E. Fork Mayfield Cr.	17	2	0	19	11.8
	1999 <sup>a</sup>	E. Fork Mayfield Cr.	7	1	0	8	14.3
	2002 <sup>a</sup>	Mayfield Cr. - Yankee Fork	8	2	0	10	25.0
27-2	1988	Trail Cr. - China Cr.	54	11	0	65	20.4
	1994	Trail Cr. - China Cr.	36	5	0	41	13.9
	1995	Trail Cr. - China Cr.	50	6	0	56	12.0
	1997	Trail Cr. - China Cr.	92	10	0	102	10.9
	1999 <sup>a</sup>	Trail Cr. - China Cr.	37	4	0	41	10.8
	2002 <sup>a</sup>	Trail Cr. - China Cr.	38	7	0	45	18.4
27-3	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
	2002 <sup>a</sup>	Meyers Cove - Falconberry	15	3	0	18	20.0
	2004	Meyers Cove - Falconberry	16	3	0	19	18.8
27-4	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
	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
	2004	Yellowjacket Cr. - Waterfall Cr.	36	11	0	47	30.6
2005 <sup>b</sup>	Camas Cr. - Reservoir Cr.	24	4	0	28	16.7	
28	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
	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



Table 1. Continued.

Hunt area	Year	Inclusive location	Adults	Kids	Unk.	Total	Kids/100 adults	
30	2001	Cobalt - Garden Cr.	2	0	0	2	0.0	
		Iron Cr. - Moyer Cr.	17	3	0	20	17.6	
		Napias Cr.	3	1	0	4	33.3	
	2002	Williams Cr.	4	1	0	5	25.0	
		2005	Iron Cr. - Williams Cr.	9	6	0	15	66.6
	Panther Cr.		19	4	0	23	21.1	
	36	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
		2002 <sup>a</sup>	Sheep Cr. - Goat Mt.	53	2	0	55	3.8
36-1	1988	Beaver Cr. - Galena	32	7	0	39	21.9	
		1994	Beaver Cr. - Galena	27	2	0	29	7.4
	2003	Beaver Cr. - Galena	38	4	0	42	10.5	
	2004	Beaver Cr. - Galena	35	10	0	45	28.6	
36-2	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	
	2004	Elk Cr. - Redfish Lake	50	13	0	63	26.0	
36A-1	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	
	2004	Redfish Lake - Alturas Cr.	51	11	0	62	21.6	
36A-2	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	
	2004	E Pass Cr. - W Pass Cr.	61	16	0	77	29.3	
36A-3	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	
	2004	Above W Pass Cr.	33	9	0	42	27.3	
36A-4	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	
	2004	Warm Springs Cr. - Wickiup Cr.	49	15	0	64	30.6	
36B	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	
	2004	Warm Springs Cr. - Wickiup Cr.	65	21	0	86	32.3	
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	

Table 1. Continued.

Hunt area	Year	Inclusive location	Adults	Kids	Unk.	Total	Kids/100 adults
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. Mountain goat harvest and drawing odds, Salmon Region, 1979-present.

Year	Permits	Harvest			Hunter success (%)	First-choice applicants	Drawing odds
		M	F	Total			
1979	93	18	10	28	30	1,833	1:19.7
1980	40	11	4	15	38	1,524	1:38.1
1981	23	10	6	16	70		
1982	20	6	6	12	60	456	1:22.8
1983	20	7	7	14	70	350	1:17.5
1984	20	12	5	17	85	270	1:13.5
1985	10	6	0	6	60	178	1:17.8
1986	13	8	2	10	77	65	1:5.0
1987	13	7	5	12	92	67	1:5.2
1988	13	5	2	7	54	80	1:6.2
1989	29	17	6	23	79	95	1:3.3
1990	29	13	7	20	69	130	1:4.5
1991	29	18	8	26	90	174	1:6.0
1992	29	18	7	25	86	149	1:5.1
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
2003	18	10	4	14	78	171	1:9.5
2004	18	12	5	17	94	160	1:8.9

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

Table 3. Mountain goat harvest and drawing odds by hunt area, Salmon Region, 1995-present.

Hunt area	Year	Permits	Harvest		Hunter success (%)	Days/hunter <sup>a</sup>	First-choice applicants	Drawing odds
			M	F				
27-2	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	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
	2003	2	0	2	100	2.0	10	1:5.0
	2004	2	2	0	100	14.0	9	1:4.5
	27-4	1999	2	2	0	100	4.8	13
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
2003		2	0	1	50	6.0	18	1:9.0
2004		2	1	0	50	10.0	11	1:5.5
30	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
	2003	2	1	1	100	7.0	14	1:7.0
	2004	2	2	0	100	4.0	36	1:18.0
36A-1	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
	2003	2	2	0	100	5.5	14	1:7.0
	2004	2	0	2	100	3.0	21	1:10.5
36A-2	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

Table 3. Continued.

Hunt area	Year	Permits	Harvest		Hunter success (%)	Days/hunter <sup>a</sup>	First-choice applicants	Drawing odds
			M	F				
36A-3	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	1:6.0
	2003	2	1	0	50	14.0	16	1:8.0
	2004	2	2	0	100	4.5	10	1:5.0
	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
	36A-4	2001	2	1	0	50	2.0	14
2002		2	2	0	100	2.0	15	1:7.5
2003		2	1	0	50	3.0	15	1:7.5
2004		2	2	0	100	1.0	19	1:9.5
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		2003	2	2	0	100	1.5	35
	2004	2	1	1	100	1.0	17	1:8.5
	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
	2003	4	3	0	75	3.0	49	1:12.3
	2004	4	2	2	100	3.8	37	1:9.3

<sup>a</sup> Prior to 1996, 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. Approved mountain goat release sites, Salmon Region.

Unit	Location	Release method	No. goats to release	No. released to date
21 <sup>a</sup>	Horse Creek	Helicopter	30	20
21	Beartrap Springs	Vehicle	10	0
27 <sup>a</sup>	Goat Creek	Helicopter	10-20	0
27 <sup>a</sup>	Tumble/Parrot Creek	Helicopter	10	0
27 <sup>a</sup>	Ship Island Creek	Helicopter	20-30	8
27 <sup>a</sup>	Jack/Wilson Creek	Helicopter	10	7
28	Panther Creek	Vehicle	10-20	23
28	Williams Creek	Vehicle	10	2
29	Warm Springs Creek	Helicopter	10-20	0
29	Haynes Creek	Vehicle	10-20	0

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

Table 5. Mountain goat translocation, 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 Mtn-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 Mtn-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
1997	Big Elk Cr.-67	Corn Lake-21	4	6	0	0	10

**APPENDIX A**  
**IDAHO**  
**2004 SEASON**  
**MOUNTAIN GOAT RULES**

## 2003 & 2004 MOUNTAIN GOAT HUNTING SEASONS



• Mountain goats of either sex may be taken EXCEPT nannies accompanied by kids.

### MANDATORY CHECK AND REPORT REQUIREMENTS

Any hunter killing a mountain goat must present the horns at an IDFG regional office or to a conservation officer within 10 days after the date of kill. **The IDFG headquarters office is not equipped to check in "mandatory check" species.** In the Boise area, these animals can be checked at IDFG's volunteer office at 109 W. 44th St. in Garden City, between 10 a.m. and 3 p.m. weekdays.

**Successful hunters must complete a big game mortality report, available at IDFG regional offices or from conservation officers, within 10 days of the date of the kill.**

A hunter may authorize another person to comply with the above report requirements if that person complies with those requirements and possesses the necessary information to accurately complete the form.

**Unsuccessful permittees must present or mail their unused tags to an IDFG office within 10 days after the close of the season for which the tag was valid. Cancelled tags will be returned to the hunter upon request. Failure to report may result in future ineligibility in mountain goat drawings.**

### 2003 & 2004 MOUNTAIN GOAT CONTROLLED HUNTS - EITHER SEX - 40 PERMITS

Either sex may be taken EXCEPT a nanny accompanied by kids

Hunt No.	Season Dates	Controlled Hunt Area	Permits	Notes
6001	Aug 30 - Nov 12	10-1	2	
6002	Aug 30 - Nov 12	10-2	2	
6003	Aug 30 - Nov 12	18*	4	Boundary change.
6004	Aug 30 - Nov 12	22	4	
6005	Aug 30 - Nov 12	27-3	2	
6006	Aug 30 - Nov 12	27-4	2	
6007	Aug 30 - Nov 12	30*	2	
6008	Aug 30 - Nov 12	36A-1*	2	
6009	Aug 30 - Nov 12	36A-2	2	
6010	Aug 30 - Nov 12	36A-3*	2	
6011	Aug 30 - Nov 12	36A-4*	2	
6012	Aug 30 - Nov 12	36B*	4	
6013	Aug 30 - Nov 12	48	2	
6014	Aug 30 - Nov 12	50*	2	
6015	Aug 30 - Nov 12	51*	6	

*\*See controlled hunt area description. This hunt includes other units or parts of other units.*

Mountain Goat controlled hunt descriptions begin on page 26.



## HUNT AREA DESCRIPTIONS

**Hunt Area 10-1**—That portion of Unit 10 within the Isabella Creek drainage.

**Hunt Area 10-2**—That portion of Unit 10 within the Collins Creek drainage.

**Hunt Area 18**— All of Unit 18 and that portion of Unit 23 within the Rapid River drainage.

**Hunt Area 22** — All of Unit 22.

**Hunt Area 27-3**—That portion of Unit 27 east of the Middle Fork of the Salmon River, south of Camas Creek, northwest of Fly Creek Trail (Forest Service Trail 124) and Mahoney Creek Trail (Forest Service Trail 121), north of Warm Springs Creek and north of Loon Creek.

**Hunt Area 27-4**— That portion of Unit 27 east of the Middle Fork of the Salmon River and north of Camas Creek to the Waterfall Creek Trail (Forest Service Trail 045) and that portion of Unit 28 within the Yellowjacket Creek drainage.

**Hunt Area 30**—Those portions of Units 21A and 30 south of and including the Freeman Creek drainage to the Agency Creek-Lemhi Pass Road.

**Hunt Area 36A-1**— That portion of Unit 50 north of Trail Creek Road and west of U.S. 93, and that portion of Unit 36A south and east of the East Fork of the Salmon River from and including the Herd Creek drainage upstream to and including the West Pass Creek drainage.

**Hunt Area 36A-2**—That portion of Unit 36A, including all headwaters of the East Fork of the Salmon River upstream from, but excluding, the Germania Creek drainage on the west and upstream from, but excluding, the West Pass Creek drainage on the east.

**Hunt Area 36A-3**—That portion of Unit 36A north and west of the East Fork of the Salmon River downstream from, but excluding, the Germania Creek drainage, and that portion of Unit 36 on the south and east sides of the main Salmon River downstream from, but excluding, the Fourth of July Creek drainage above Stanley.

**Hunt Area 36A-4**—That portion of Unit 36A within the Germania Creek drainage, and that portion of Unit 36 within the Salmon River drainage east of State Highway 75 from

and including the Fourth of July Creek drainage upstream to and including the Pole Creek drainage.

**Hunt Area 36B**—That portion of Unit 36B south of and including the Challis Creek drainage; that portion of Unit 36 east of the Yankee Fork-Mill Creek Summit Road.

**Hunt Area 48**—That portion of Unit 48 north and east of State Highway 75 and that portion south and west of State Highway 75 upstream from and including the Baker Creek drainage.

**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.

**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.





## 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.

