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Progress Report



MOUNTAIN GOAT

Study I, Job 5

July 1, 2006 to June 30, 2007

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TABLE OF CONTENTS

Abstract
Mountain Goat Harvest in 2006
1/10 dill dill 1/20 till 2000
Mountain Goat Hunt Applications in 20071
PANHANDLE REGION
UNITS 1, 4A, 9
Abstract
Management Direction
Background2
Population Surveys
Management Implications3
LITERATURE CITED4
CLEARWATER REGION11
Abstract11
Management Direction11
Climatic Conditions
Background12
UNITS 10, 12, 15, 16, 16A, 1712
Population Surveys12
Harvest Characteristics
Habitat Conditions
Capture and Translocation
Management Implications
UNITS 14, 18, 19, 2013
Population Surveys
Harvest Characteristics
Habitat Conditions14
Capture and Translocation14
Management Implications14
•

Abstract	23
Management Direction	23
Background	23
Population Surveys	23
Harvest Characteristics	24
Management Implications	24
SOUTHWEST (MCCALL) REGION	26
UNITS 19A, 20A, 22, 23, 24, 25, 26	26
Abstract	26
Management Direction	26
Background	26
Population Surveys	27
Harvest Characteristics	27
Management Implications	27
MAGIC VALLEY REGION	29
UNITS 43, 48, 49	29
Abstract	29
Management Direction	29
Background	29
Population Surveys	30
Harvest Characteristics	31
Capture and Translocation	31
Management Implications	31
UPPER SNAKE REGION	35
Abstract	35
Climatic Conditions	35
UNITS 49, 50	35
Background	35
Population Surveys	36
Harvest Characteristics	36
Habitat Conditions	36

Capture and Translocation	36
Management Implications	36
UNITS 51, 58, 59, 59A	37
Background	37
Population Surveys	37
Harvest Characteristics	38
Habitat Conditions	38
Capture and Translocation	38
Management Implications	38
UNIT 67	39
Background	39
Population Surveys	39
Harvest Characteristics	40
Habitat Conditions	40
Capture and Translocation	41
Management Implications	41
LITERATURE CITED	41
SALMON REGION	47
UNITS 21, 21A, 27, 28, 29, 30, 30A, 36, 36A, 36B, 37, 37A	47
Abstract	47
Management Direction	47
Climatic Conditions	47
Background	48
Population Surveys	48
Harvest Characteristics	48
Habitat Conditions	49
Capture and Translocation	50
Management Implications	50
APPENDIX A	59

LIST OF TABLES

PANHANDLE REGION	
Table 1. Mountain goat surveys, Unit 1, Panhandle Region, 1955-2001	5
Table 2. Mountain goat surveys, Unit 4A, Panhandle Region, 1973-2001	7
Table 3. Mountain goat surveys, Unit 9, Panhandle Region, 1957-2001	8
CLEARWATER REGION	
Table 1. Mountain goat surveys, Units 10, 12, and 17, Clearwater Region, 1981-prese	nt16
Table 2. Mountain Goat harvest and drawing odds, Clearwater Region, 1983-present.	18
Table 3. Mountain goat harvest and drawing odds by hunt area, Clearwater Region, 19 present.	
Table 4. Mountain goat translocation, Clearwater Region, 1962-2003	20
Table 5. Mountain goat surveys, Units 18, 19, and 20, Clearwater Region, 1981-2002.	21
SOUTHWEST (NAMPA) REGION	
Table 1. Mountain goat surveys, Southwest (Nampa) Region, 1976-2004	25
Table 2. Mountain goat harvest and drawing odds, Southwest Region, 2005-present	25
SOUTHWEST (MCCALL) REGION	
Table 1. Mountain goat surveys, Southwest (McCall) Region, 1982-2003	28
Table 2. Mountain goat harvest and drawing odds, Southwest (McCall) Region, 2003-present.	
	-
MAGIC VALLEY REGION	
Table 1. Mountain goat surveys, Magic Valley Region, 1981-2004	
Table 2. Mountain goat harvest and drawing odds by hunt area, Magic Valley Region, 1983-present	
UPPER SNAKE REGION	
Table 1. Mountain goat harvest and drawing odds, Upper Snake Region, 1981-present	42
Table 2. Mountain goat surveys, Upper Snake Region, 1982-present	43
Table 3. Mountain goat harvest and drawing odds by hunt area, Upper Snake Region, 1997-present	45

Table 4.	Mountain goat translocation, Upper Snake Region, 1969-1997	46
SALMO	N REGION	
Table 1.	Mountain goat surveys by hunt area, Salmon Region, 1988-present	51
Table 2.	Mountain goat harvest and drawing odds, Salmon Region, 1979-present	54
	Mountain goat harvest and drawing odds by hunt area, Salmon Region, 1997-	55
Table 4.	Approved mountain goat release sites, Salmon Region.	58
Table 5.	Mountain goat translocation, Salmon Region, 1982-1997.	58
	LIST OF FIGURES	
Figure 1.	Comparison of aerial surveys for mountain goats, Panhandle Region, 1961-2001	10

<u>Idaho</u>	JOB TITLE:	Mountain Goat Surveys and
W-170-R-31		Inventories
1-7	STUDY NAME:	Big Game Population Status,
I		Trends, Use, and Associated
5		Habitat Studies
		W-170-R-31

PERIOD COVERED: July 1, 2006 to June 30, 2007

STATEWIDE

Abstract

Mountain goat permits are highly valued in Idaho. Hunters may harvest only 1 mountain goat in Idaho in their lifetime. The Department authorized 57 permits for mountain goat harvest during the 2006 hunting season.

Mountain Goat Harvest in 2006

The 57 hunters harvested 46 mountain goats in 2006 for a hunter success rate of 81%. The same number of hunters harvested 48 mountain goats in 2005 when the harvest rate was 84%. Idaho mountain goat harvest rates routinely average 80 to 90% statewide.

Hunters are allowed to harvest mountain goats of both sexes, but harvest of males (billies) is encouraged. Female mountain goats comprised 13% (6) of the harvest in 2006 as compared with 21% of the harvest in the 2005 season. Horns of mountain goats typically range from 6 to 12 inches in length. Length of the longest horn averaged 8.6 inches in 2006 as compared with 8.5 inches in 2005. Estimated average age of mountain goats in 2006 was 6.7 years as compared with 6.4 years in 2005.

Mountain Goat Hunt Applications in 2007

A total of 648 applications for 48 mountain goat permits were received in April 2007, comparable with the 669 applications received in 2006 but below the record 705 applications received in 2005 for 57 permits in both years. The majority of mountain goat applications come from resident hunters: 491 (76%) in 2007, 481 (72%) in 2006, and 543 (77%) in 2005. Overall, drawing success averaged 7.4% in 2007 or 13.5 applications per available permit, as compared with 8.5% or 11.7 applications per permit in 2006 and 8.1% or 12.4 applications per permit in 2005.

STATE:	Idaho	JOB TITLE:	Mountain Goat Surveys and
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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, 1955-2001.

Inclusive location	Year	Adults	Kids	Unknown	Total	Kids/100 adults
Selkirk Range, Unit 1						
Smith to Parker Creek	1955 ^a	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 ^a	0	0	0	0	0.0
	1963 ^c	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 ^a	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 ^a	0	0	35	35	0.0
21011 61661	1963	0	0	0	0	0.0
	1971	0	0	0	0	0.0
	1981	0	0	3	3	0.0
	1988	4	2	0	6	50.0
	1991	9	1	0	10	11.1
	1995	13	0	0	13	0.0
	2001	5	1	Ö	6	20.0
Caribou Creek	1955 ^a	0	0	55	55	20.0
Curroou Creek	1963	9	2	0	11	22.2
	1971	0	0	0	0	0.0
	1981	0	0	0	0	0.0
	1988	6	2	Ö	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 ^a	0	0	195	195 ^b	-τυ.υ
Total beight population	1963	29	6	0	35	20.7
	1903	0	0	3	3	20.7
	1971	0	0	3	3	
	1988	11	5	0	16	45.5
	1988	13	2	0	15	15.4
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Table 1. Continued.

						Kids/100
Inclusive location	Year	Adults	Kids	Unknown	Total	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 ^d	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 ^e	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 ^e	5	0	0	5	0.0
	2001	2	0	0	2	0.0
East Fork Lightning Creek	1971	0	0	5	5	
(Includes Savage and Char)	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 ^e	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 ^e	27	4	0	31	14.8
	2001	14	1	0	15	7.1

a Summer estimates from ground surveys.
b 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.

Conversely the survey.

Montana Fish, Wildlife and Parks data, August survey.

^e August survey of summer range.

Table 2. Mountain goat surveys, Unit 4A, Panhandle Region, 1973-2001.

						Kids/100
Inclusive location	Year	Adults	Kids	Unknown	Total	adults
Pend Oreille Population, Unit 4						
Buttonhook to Lakeside	1973	11	3	0	14	27.3
	1975 ^a	31	12	0	43	38.7
	1976	16	3	0	19	18.8
	1981	30	7	0	37	23.3
	1985 ^b	42	10	0	52	23.8
	1991	9	4	0	13	44.4
	1991 ^c	11	7	0	18	63.6
	1992	15	2	0	17	13.3
	1995 ^d	13	2	0	15	15.4
	2001	27	4	0	31	14.8
Green Monarchs	1973	2	0	0	2	0.0
	1975 ^a	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 ^c	0	0	0	0	0.0
	1992	0	0	0	0	0.0
	1995 ^d	0	0	0	0	0.0
	2001	0	0	0	0	0.0
Pend Oreille population	1973	13	3	0	16	23.1
	1975 ^a	31	12	0	43	38.7
	1976	20	3	0	23	15.0
	1981	32	7	0	39	21.9
	1985 ^b	42	10	0	52	23.8
	1991	11	4	0	15	36.4
	1991 ^c	11	7	0	18	63.6
	1992	15	2	0	17	13.3
	1995 ^d	13	2	0	15	15.4
	2001	27	4	0	31	14.8

a Ground survey.
b Population estimate based on capture/recapture with ground surveys during spring.
c Ground survey during October.
d Helicopter survey during August.

Table 3. Mountain goat surveys, Unit 9, Panhandle Region, 1957-2001.

Inclusive location	Year	Adults	Kids	Unknown	Total	Kids/100 adults
Little North Fork of the Clearwa						
Hoodoo Peak to Spotted Louis		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 1979 ^a	4	0	0	4	0.0
	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 ^a	32	5	0	37	15.6
	1981	48	8	0	56	16.7
	1988	26	2	0	28	7.7
	1991 ^b	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 1979 ^a	8	0	0	8	0.0
	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.

						Kids/100
Inclusive location	Year	Adults	Kids	Unknown	Total	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 ^a					
	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 ^a					
	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 po						
1	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 ^a	32	5	0	37	15.6
	1981	60	9	ő	69	15.0
	1988	54	9	0	63	16.7
	1991 ^b	34	9	Ö	43	26.5
	1993	45	15	ő	60	33.3
	2001	47	13	0	60	27.7

^a Area flown only identified as "Snow Peak." It is unknown what area was actually flown.

^b Weather conditions precluded complete coverage of the Canyon Creek portion of the flight.

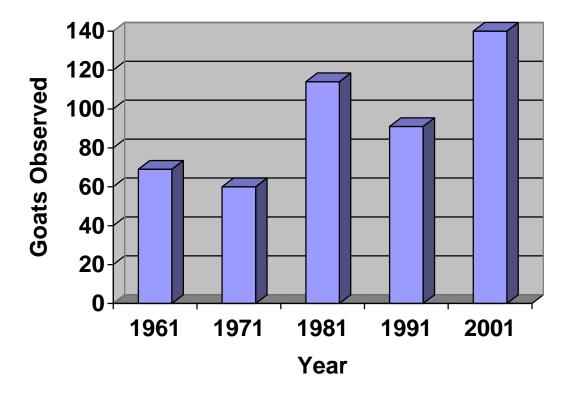


Figure 1. Comparison of aerial surveys for mountain goats, Panhandle Region, 1961-2001. Note data from 1991 includes only a partial survey of Canyon Creek.

STATE:IdahoJOB TITLE:Mountain Goat Surveys and
InventoriesPROJECT:W-170-R-31InventoriesSUBPROJECT:2STUDY NAME:Big Game Population Status,
Trends, Use, and Associated
Habitat StudiesJOB:5Habitat Studies

PERIOD COVERED: July 1, 2006 to June 30, 2007

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 2006, 8 permittees harvested 6 mountain goats. Hunt areas 10-1 and 10-2 were combined and permits available were reduced by 2. The most recent paintball mark-resight survey revealed population estimates of 38 ± 6 adult mountain goats in Hunt Area 10-1 and 47 ± 18 in Hunt Area 10-2. A mark-resight survey in April 2007 revealed 194 ± 29 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

The Clearwater Region experienced below normal snow pack for the water year of 2006-2007 according to Natural Resources Conservation Service Idaho Basin Outlook Report. The Clearwater River Basin was 65% of the 30-year average of snow water (Oct-Jun), with the total precipitation percent of average at 99%. Snow depth was below average for the basin with early melting at all but the highest elevations. Meanwhile, the Salmon River Basin averaged 44% of snow water with a total precipitation percent of average at 85%. Snow depth was near normal at the higher elevations where melting did not occur, although at lower elevations snow depths were diminished early in the season with run-off. Snowfall was good throughout the early winter

in the region but lacked later in the season. Additionally, warm temperatures early in the year caused a decrease in the remaining snow pack when it should have been at the peak.

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. In 2003, only 3 hunts with 8 permits were offered. In 2007 Hunt Areas 10-1 and 10-2 were combined and the number of tags reduced from 2 permits in each area (total 4) to a total of 2 permits for the new hunt area. The Clearwater Region now offers 2 goat hunts with a total of 6 permits (Appendix A).

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

Controlled Hunt Areas 10-1, 10-2

Population Surveys

No population surveys were conducted during this reporting period. Units 12 and 17 have not been surveyed since 1996 and 1994, respectively (Table 1). During April and May 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 ± 17 mountain goats over both hunt areas compared to 85 ± 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 (Table 2). During 2006, 3 of 4 permittees were successful in hunts 10-1 and 10-2 (Table 3). Drawing odds for Unit 10 hunts were 1:20 in 2006, up from an average of 1:17 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 4). 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 has led 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 were reduced from 4 to 2 and the hunt areas combined to 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

Unit 18 is one of the areas where data was collected with the paintball mark-resight survey technique for goats. This area consequently has the longest data set of comparable estimates. In 1999, an estimate of 171 ± 48 goats was generated. In 2002, an estimate of 196 ± 22 goats was generated. The most recent survey (2007) was an estimated 194 ± 29 goats (Table 5). The goat population in Hunt Area 18 appears to stable. The population has been robust with conservative hunting seasons and 3 translocations out of this population over this time period.

Units 19 and 20 have not been surveyed since 1993 (Table 5).

Harvest Characteristics

Many of the region's mountain goat hunts remained closed in 2006 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 1:13.3, up from an average of 1:12.7 over the previous 10 years. In 2006, the 4 permittees harvested 3 mountain goats (Table 3).

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 4). 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, 8 have died since release while the remaining 2 radio transmitters have gone inactive. Sixteen goats were captured and translocated in 2003 to Sheep Hill in Unit 20. Six were released with radio transmitters of which 3 have died, 1 has gone inactive, and 2 still have active 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, Units 10, 12, and 17, Clearwater Region, 1981-present.

						Kids/100
Unit	Year	Inclusive location	Adults	Kids	Total	adults
10	1991	Flat Mtn to Elizabeth Mtn	14	3	17	21.4
		Pot Mountain	2	0	2	0.0
		Moose Mountain	27	1	28	3.7
		S.F. Kelly Creek to Williams Cree		6	40	17.6
		Isabella Creek (10-1)	50	13	63	26.0
		Collins to Quartz Creek (10-2)	73	15	88	20.5
	400-	1991 Tota		38	238	19.0
	1996	Flat Mtn to Elizabeth Mtn	12	1	13	8.3
		Pot Mountain	4	0	4	0.0
		Moose Mountain	24	3	27	12.5
		S.F. Kelly Creek to Williams Cree		0	14	0.0
		Isabella Creek (10-1)	48	13	61	27.1
		Collins to Quartz Creek (10-2)	61	14	75	23.0
	20028	1996 Tota		31	194	19.0
	2002 ^a	Isabella Creek (10-1)	54±12		54±12	
	2005 ^a	Collins to Quartz Creek (10-2)	44±5		44±5	
	2005 ^a	Isabella Creek (10-1)	38±6		38±6	
12	1001	Collins to Quartz Creek (10-2)	47±18	2	47±18 21	167
12	1981	Old Man Creek Boulder Creek	18 9	3	12	16.7 33.3
		Noseeum Creek	6	2	8	33.3
		Skookum Creek	2	0	2	0.0
		Grave Butte	$\frac{2}{2}$	0	2	0.0
		Stanley Creek	5	1	6	20.0
		Lone Knob	1	0	1	0.0
		Squaw Creek	2	0	2	0.0
		Fish Creek ^b	_	Ü	_	0.0
		Boulder/Crooked Fork	4	1	5	25.0
		1981 Tota		10	59	20.4
	1987	Old Man Creek	18	4	22	22.2
		Boulder Creek	9	1	10	11.1
		Noseeum Creek	11	3	14	27.3
		Skookum Creek	6	0	6	0.0
		Grave Butte	0	0	0	0.0
		Stanley Creek	5	0	5	0.0
		Lone Knob ^b				
		Squaw Creek	8	6	14	75.0
		Fish Creek	1	0	1	0.0
		Boulder/Crooked Fork	10	3	13	30.0
		1987 Tota		17	85	25.0
	1996	Old Man Creek	21	3	24	14.3
		Boulder Creek	0	0	0	0.0
		Noseeum Creek	3	0	3	0.0

Table 1. Continued.

						Kids/100
Unit	Year	Inclusive location	Adults	Kids	Total	adults
		Skookum Creek	2	1	3	50.0
		Grave Butte	0	0	0	0.0
		Stanley Creek	4	0	4	0.0
		Lone Knob	0	0	0	0.0
		Squaw Creek	11	0	11	0.0
		Fish Creek	0	0	0	0.0
		Boulder/Crooked Fork	2	1	3	50.0
		1996 Total	43	5	48	11.6
17	1991	E.F. Moose Creek	25	7	32	28.0
		White Cap Creek	23	6	29	26.1
		Canyon Creek	21	12	33	57.1
		Copper Creek	3	0	3	0.0
		Paradise Creek	8	0	8	0.0
		Cub Creek	10	5	15	50.0
		Brushy Fork Creek	10	5	15	50.0
		Bear Creek	4	3	7	75.0
		Upper Selway (above Magruder Crossing)	14	5	19	35.7
		Little Clearwater R to Echo Creek	4	1	5	25.0
		Snake Creek	0	0	0	0.0
		Goat Creek ^b	0	0	0	0.0
		Grouse Creek/Running Creek	0	0	0	0.0
		Stewart Creek	0	0	0	0.0
	1004	1991 Total	122	44	166	36.1
	1994	E.F. Moose Creek	25 25	5	30	20.0
		White Cap Creek	25	2	27	8.0
		Canyon Creek	14	6	20	42.9
		Copper Creek	0	0	0	0.0
		Paradise Creek	4	0	4	0.0
		Cub Creek	3	0	3	0.0
		Brushy Fork Creek	12	4	16	33.3
		Bear Creek	9	2	11	22.2
		Upper Selway (above Magruder Crossing)	16	2	18	12.5
		Little Clearwater R to Echo Creek	6	0	6	0.0
		Snake Creek	1	0	1	0.0
		Goat Creek	11	3	14	27.3
		Grouse Creek/Running Creek	0	0	0	0.0
		Stewart Creek	1	0	1	0.0
		1994 Total	127	24	151	18.9

Paintball mark-resight survey (Apr-May).
 Drainage not included in survey.

Table 2. Mountain Goat harvest and drawing odds, Clearwater Region, 1983-present.

-			Harvest	t	Hunter	First-choice	Drawing
Year	Permits	M	F	Total	success (%)	applicants	odds
1983	11	8	3	11	100	207	1:18.8
1984	11	5	2	7	64	265	1:24.1
1985	11	6	4	10	91	288	1:26.2
1986	11	6	4	10	91	129	1:11.7
1987	11	6	5	11	100	102	1:9.3
1988	11	8	3	11	100	135	1:12.3
1989	12	6	4	10	83	104	1:8.7
1990	12	7	3	10	83	119	1:9.9
1991	12	6	4	10	83	117	1:9.8
1992	12	5	3	8	67	103	1:8.6
1993	12	5	7	12	100	125	1:10.4
1994	12	5	5	10	83	112	1:9.3
1995	12	6	4	10	83	130	1:10.8
1996	12	5	4	9	75	119	1:9.9
1997	9	5	4	9	100	132	1:14.7
1998	9	4	4	8	89	140	1:15.6
1999	9	5	4	9	100	121	1:13.4
2000	9	5	2	7	78	104	1:11.6
2001	9	6	2	8	89	108	1:12.0
2002	9	3	4	7	78	140	1:15.6
2003	8	3	2	5	63	125	1:15.6
2004	8	3	3	6	75	118	1:14.8
2005	8	6	0	6	75	129	1:16.1
2006	8	6	0	6	85	134	1:16.8

Table 3. Mountain goat harvest and drawing odds by hunt area, Clearwater Region, 1997-present.

Hunt			Har	vest	Hunter	Days/	First-choice	Drawing
area	Year	Permits	M	F	success (%)	hunter ^a	applicants	odds
10-1	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
	2005	2	1	0	50	8.5	41	1:20.5
	2006	2	1	0	50	1.0	46	1:23.0
10-2	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
	2004	2	1	1	100	5.5	27	1:13.5
	2005	2	2	0	100	3.0	34	1:17.0
	2006	2	2	0	100	12.0	35	1:17.5
18	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
	2005	4	3	0	75	9.0	54	1:13.5
	2006	4	3	0	75	6.7	53	1:13.2

Table 4. Mountain goat translocation, Clearwater Region, 1962-2003.

			Ad	ults	Ki	ds	
Year	Capture site-Unit	Release site-Unit	M	F	M	F	Total
1962	Snow Peak-9	Seven Devils-18	2	4	2	0	8
1964	Snow Peak-9	Seven Devils-18	2	5	0	2	9
1966	Snow Peak-9	Dome Hill-15	3	1	0	0	4
	Black Mtn-9A	Dome Hill-15	1	3	0	0	4
1967	Black Mtn-9A	Dome Hill-15	1	2	0	0	3
1986	Black Mtn-9A	Boulder Creek-12	2	5	0	0	7
1987	Snow Peak-9	Oregon Butte-19	0	8	0	0	8
	Black Mtn-9A	Oregon Butte-19	2	2	0	0	4
1989	Olympic NP, WA	Seven Devils-18	8	0	0	0	8
1991	Black Mtn-10	Ship Island Cr-27	4	4	0	0	8
1994	Black Mtn-10	Big Squaw Cr-20	4	4	0	0	8
1996	Black Mtn-10	Big Squaw Cr-20	0	1	0	0	1
1998	Black Mtn-10	Johns Creek-15	1	0	0	0	1
	Black Mtn-10	Big Squaw Cr-20	1	2	0	0	3
1999	Seven Devils-18	Big Mallard Falls-20	4	3	0	0	7
2001	Seven Devils-18	Big Mallard Falls-20	5	6	0	0	11
2003	Seven Devils-18	Sheep Hill-20	5	5	2	4	16

Table 5. Mountain goat surveys, Units 18, 19, and 20, Clearwater Region, 1981-2002.

						Kids/100
Unit	Year	Inclusive location	Adults	Kids	Total	adults
18	1981	Dry Gulch	20	0	20	0.0
		Bernard Creek	29	4	33	13.8
		Bernard Creek to Three Creek	0	0	0	0.0
		Sheep Creek	3	0	3	0.0
		Three Creek	12	2	14	16.7
		Granite Creek	1	0	1	0.0
		Three Creek to Granite Creek	0	0	0	0.0
		1981 Total	65	6	71	9.2
	1987	Dry Gulch	0	0	0	0.0
		Bernard Creek	15	2	17	13.3
		Bernard Creek to Three Creek	28	7	35	25.0
		Sheep Creek	1	0	1	0.0
		Three Creek	3	0	3	0.0
		Granite Creek	19	3	22	15.8
		Three Creek to Granite Creek	4	0	4	0.0
		1987 Total	70	12	82	17.1
	1993	Dry Gulch	49	5	54	10.2
		Bernard Creek	3	2	5	66.7
		Bernard Creek to Three Creek	11	4	15	36.4
		Sheep Creek	1	0	1	0.0
		Three Creek	20	3	23	15.0
		Granite Creek	13	3	16	23.1
		Three Creek to Granite Creek	20	3	23	15.0
		1993 Total	117	20	137	17.1
	1996	Dry Gulch	0	0	0	0.0
		Bernard Creek	19	1	20	5.3
		Bernard Creek to Three Creek	12	1	13	8.3
		Sheep Creek	4	0	4	0.0
		Three Creek	16	4	20	25.0
		Granite Creek	9	1	10	11.1
		Three Creek to Granite Creek	1	0	1	0.0
	40008	1996 Total	61	7	68	11.5
	1999 ^a	1999 Total	171±48	61±44	237 ± 67	34.5
	2002 ^a	2002 Total	196±22			
4.0	2007 ^a	2007 Total	194±29		_	40.0
19	1982	Wind River	5	2	7	40.0
		Crooked River	7	1	8	14.3
		Sheep Creek	0	0	0	0.0
		Elk Creek	2	1	3	50.0
		Upper Johnson Creek ^b	1 4	4	10	20.5
	1007	1982 Total	14	4	18	28.6
	1986	Wind River	1	0	1	0.0
		Crooked River	11	3	14	27.3

Table 5. Continued.

							Kids/100
Unit	Year	Inclusive location		Adults	Kids	Total	adults
		Sheep Creek		24	9	33	37.5
		Elk Creek		9	4	13	44.4
		Upper Johnson Creek ^b					
			1986 Total	45	16	61	35.6
	1993	Wind River		7	3	10	42.9
		Crooked River		4	0	4	0.0
		Sheep Creek		8	0	8	0.0
		Elk Creek		2	0	2	0.0
		Upper Johnson Creek		3	1	4	33.3
			1993 Total	24	4	28	16.7
20	1982	Blowout Creek		2	0	2	0.0
		Rhett Creek		10	4	14	40.0
		Sabe Creek		10	3	13	30.0
		Rattlesnake Creek		3	1	4	33.3
		Bargamin Creek		2	0	2	0.0
			1982 Total	27	8	35	29.6
	1987	Blowout Creek		4	0	4	0.0
		Rhett Creek		12	1	13	8.3
		Sabe Creek		30	8	38	26.7
		Rattlesnake Creek		2	0	2	0.0
		Bargamin Creek		2	0	2	0.0
			1987 Total	50	9	59	18.0
	1993	Blowout Creek		1	0	1	0.0
		Rhett Creek		1	0	1	0.0
		Sabe Creek		15	2	17	13.3
		Rattlesnake Creek		2	0	2	0.0
		Bargamin Creek		0	0	0	0.0
			1993 Total	19	2	21	10.5

^a Paintball mark-resight estimates include all of Hunt Area 18 (Units 18 and 22).
^b Drainage not included in survey.

STATE:	<u>Idaho</u>	JOB TITLE:	Mountain Goat Surveys and
PROJECT:	W-170-R-31		Inventories
SUBPROJECT:	3, Nampa	STUDY NAME:	Big Game Population Status,
STUDY:	I		Trends, Use, and Associated
JOB:	5		Habitat Studies
PERIOD COVER	RED: July 1, 2006	to June 30, 2007	

SOUTHWEST (NAMPA) REGION

Units 33, 34, 35, 39

Controlled Hunt Area 39

Abstract

A new hunt was created with 2 permits in Unit 39 for the 2005 and 2006 seasons. Both permits were filled in 2005 and in 2006. Until 2005, no mountain goat hunting had been allowed in Units 35 or 39 since 1981.

Mountain goat surveys were last conducted in parts of Units 35 and 39 in February 2004. We observed 99 mountain goats (81 adults, 18 kids) in Unit 35 and 116 mountain goats (92 adults, 24 kids) in Unit 39.

Management Direction

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

Background

Historically controlled hunts for mountain goats occurred in Units 35 and 39, but until 2005 there had 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 (1977-1981) was 8 mountain goats. Unit 39 had 3 hunt areas with a total of 17 any-weapon permits. Average annual harvest for the last 5 years of the hunt was 7 mountain goats. A hunt with 2 permits was reopened in Unit 39 in 2005.

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 2 observers. Prior

surveys in these areas were conducted during spring when intermixed snow and green-up conditions persisted. The 2004 survey was conducted during winter when conditions were ideal. Fresh snowfall the day prior to the start of our survey provided excellent tracking conditions. Fresh tracks were easily spotted from the air and could quickly be followed to the mountain goat(s) that made them.

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 (Table 1) provide strong evidence that other herd units have declined dramatically (e.g., Steel Mountain and North Fork Boise River). 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 the North Fork Boise River and Steel Mountain areas. Habitat disturbance may have been responsible for the observed declines.

Harvest Characteristics

A new hunt with 2 permits was established for that portion of Unit 39 in Middle Fork Boise River drainage upstream from, and including, Queen's River and Yuba River drainages for 2005 and 2006. Both hunters harvested males both years for a 100% success rate (Table 2). Maximum horn length for the 2 males taken in 2006 was 8.5 inches. The oldest was 10 years old. No other mountain goat hunting occurred in the southern portion of the Southwest Region during the reporting period.

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 revised Mountain Goat Management Plan. All other areas will remain closed.

Table 1. Mountain goat surveys, Southwest (Nampa) Region, 1976-2004.

•						Kids/100
Unit	Inclusive location	Year	Adults	Kids	Total	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 Cr.	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

Table 2. Mountain goat harvest and drawing odds, Southwest Region, 2005-present.

Hunt			Har	vest	Hunter	Days/	First-choice	Drawing
area	Year	Permits	M	F	success (%)	hunter	applicants	odds
39-1	2005	2	2	0	100	1.0	30	1:15.0
	2006	2	2	0	100	4.0	7	1:3.5

STATE:IdahoJOB TITLE:Mountain Goat Surveys and
InventoriesPROJECT:W-170-R-31InventoriesSUBPROJECT:3, McCallSTUDY NAME:Big Game Population Status,
Trends, Use, and Associated
Habitat StudiesJOB:5Habitat Studies

PERIOD COVERED: July 1, 2006 to June 30, 2007

SOUTHWEST (MCCALL) REGION

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

Controlled Hunt Area 22

Abstract

A new hunt was created with 4 permits in Unit 22 beginning with the 2003 mountain goat hunting season. Hunters harvested 4 goats for a 100% success rate in 2006. Forty-one mountain goats were observed during an aerial survey on 4 May 2007. The observed total was lower than the total observed in a survey conducted in 2002.

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 (Appendix A) beginning in 2003.

Population Surveys

A mark/resight population survey was conducted for the Unit 18 and 22 goat population in 2007 using a Hughes 500 helicopter. Mountain goats were marked using a paintball applicator on 19 and 20 April 2007. A resight survey was conducted on 4 May 2007. A total of 41 goats was observed during the resight survey in Unit 22. Fewer goats were observed in the 2007 survey than in the 2002 survey (Table 1). Population estimates for the entire Unit 18/22 goat population are presented in the Clearwater Region portion of this report.

Harvest Characteristics

Mountain goats are hunted in a portion of Unit 23 of the Southwest (McCall) 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 2006. A total of 4 goats were harvested for a 100% success rate (Table 2). The maximum horn length recorded from this harvest was 11.25 inches.

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. 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. Based on the aerial survey in 2000, the increase in goat numbers seems to be continuing in these 2 units. As a result, the Commission approved a separate hunt area for all of Unit 22 with 4 permits beginning with the 2003 hunting season. This hunt has a high success rate, with only 1 hunt permit holder failing to harvest a goat since the hunt inception. The 2007 population survey indicated that the mountain goat population was capable of supporting this level of harvest.

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. Habitat potential for sustaining a goat population should be assessed in this area. This area should be considered as one of the top priorities for reintroduction or supplementation in the McCall sub-region.

Table 1. Mountain goat surveys, Southwest (McCall) Region, 1982-2003.

					Kids/100
Unit	Year	Adults	Kids	Total	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
	2006	34	7	41	20.5
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			Har	vest	Hunter	Days/	First-choice	Drawing
area	Year	Permits	M	F	success (%)	hunter	applicants	odds
22	2003	4	3	1	100	1.8	51	1:12.8
	2004	4	3	0	75		32	1:8.0
	2005	4	4	0	100	3.3	23	1:5.8
	2006	4	4	0	100		78	1:19.5

STATE:	Idaho	JOB TITLE:	Mountain Goat Surveys and
PROJECT:	W-170-R-31		Inventories
SUBPROJECT:	4	STUDY NAME:	Big Game Population Status,
STUDY:	I		Trends, Use, and Associated
JOB:	5		Habitat Studies
PERIOD COVER	ED: July 1, 2006	to June 30, 2007	

MAGIC VALLEY REGION

Units 43, 48, 49

Controlled Hunt Areas 43, 48

Abstract

During the 2005-2006 regulation process, mountain goat hunt area boundaries underwent substantial changes in the Pioneer, Smoky, Sawtooth, and Boulder-White Cloud mountains to better reflect population structure, improve harvest distribution, and allow more hunting opportunity while ensuring healthy mountain goat populations. During 2006, 4 permits for mountain goats were available in 2 hunt areas, including a new hunt in area 43. Three (75%) hunters were successful and all (100%) of the harvested animals were males. Population surveys were not conducted in any of the units during this reporting period.

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 experienced a sharp decline in the early 1990s, and has remained at low, stable numbers ever since. Because of this, Unit 43 was closed to mountain goat hunting between 1995 and 2004. As a result of 2005 changes in mountain goat hunt area boundaries, Unit 43 was incorporated into portions of 2 mountain goat hunt areas. Hunt Area 43 now includes the western portion of

Unit 43 and the southern portion of Unit 36, while Hunt Area 48 includes the eastern portion of Unit 43 and the northwest portion of Unit 48.

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 (one area included that portion of Unit 49 west of the Little Wood River). In 1987, Unit 49 was closed to mountain goat hunting and excluded from the 48-2 hunt area. From 1987-1990, Unit 48 was divided into 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. Between 1991 and 2004, 2 permits were authorized annually in 1 hunt area that included all of Unit 48 (Appendix A). Hunt Area 48 currently encompasses the northwest portion of Unit 48 and the eastern portion of Unit 43. Portions of Unit 48 is also included in Hunt Areas 36A-1 and 36A-2. Information on these hunts is presented in the Salmon Region section of this report.

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.

Trend surveys were also conducted during February 2004 in Units 43 and 48. Twenty-seven mountain goats (100 adults:29 juveniles) were observed in Unit 43, and 56 mountain goats (100 adults:27 juveniles) were observed in Unit 48. Numbers in Unit 43 were consistent with the number of goats counted during the previous aerial survey (2001), while the 56 goats observed in Unit 48 represent a slight decline from the number observed on the 2001 survey.

Because hunt area boundaries have changed, and because part of the reason for the change was to better match harvest to population structure, it is also useful to report survey results by hunt area, rather than simply by game management unit. During the February 2004 surveys, 68 mountain goats (100 adults:28 juveniles) were observed in Hunt Area 43. Also during February 2004, 28 mountain goats (100 adults:21 juveniles) were observed in Hunt Area 48.

Harvest Characteristics

In 2006, 1 of the 2 permittees in Hunt Area 48 harvested a 1.5-year-old male mountain goat in 3 days of hunting. Drawing odds in Hunt Area 48 were 14% in 2006; odds in Unit 48 have averaged 12% over the past 10 years (Table 2).

Both permittees in Hunt Area 43 harvested male mountain goats. One hunter harvested a 9.5-year-old male in 1 day of hunting, while the other hunter harvested a 2.5-year-old male in 8 days of hunting. Drawing odds in Hunt Area 43 were 16%.

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

Alterations to hunt area boundaries and the addition of Hunt Area 43 represent the most significant events related to mountain goat populations in the Magic Valley Region during this reporting period. Results of the 2004 survey suggest that overall mountain goat numbers are increasing but also suggest that the distribution of mountain goats is patchy. While hunters have enjoyed relatively high success rates and relatively good drawing odds in these units, research suggests that small, patchy mountain goat populations can sustain only minimal harvest. In addition, because both Hunt Areas 43 and 48 are close to the Ketchum/Sun Valley area and State Highway 75, mountain goats in these hunt areas are frequently observed by the general public and have important non-consumptive value. During the next review of mountain goat hunting regulations, we plan to review location, survey, and harvest data and will continue to refine permit numbers and hunt area boundaries to best fit the dynamics of the Unit 43, 48, and 49 mountain goat populations.

In addition, the Unit 49 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. These factors will also be considered when mountain goat regulations next come under review.

Table 1. Mountain goat surveys, Magic Valley Region, 1981-2004.

							Kids/100
Unit	Year	Inclusive location	Adults	Kids	Unknown	Total	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
	2001		55	14	0	69	25.5
	2004		44	12	0	56	27.3
49	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		_		vest	Hunter	Days/	First-choice	Drawing
area	Year	Permits	M	F	success (%)		applicants	odds
43 ^b	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
	2005 ^c	2	1	1	100	1.5	24	1:12.0
	2006	2	2	0	100	4.5	14	1:7.0
48	1983	4	2 3	1	75	2.0	80	1:20.0
	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	0	100	3.0	24	1:12.0
	2004	2 2	1	0	50	3.0	18	1:9.0
	2005	2	2	0	100	5.0	13	1:6.5
	2006	$\overline{2}$	1	0	50	3.0	12	1:6.0
Magic V	Valley Reg		-	-	- ~	- / -	_	
0	1983	8	4	1	63	3.2	131	1:16.4
	1984	8	4	3	88	3.8	96	1:12.0
	1985	8	1	6	88	2.5	164	1:20.5
	2,00	J	-	Ü			-0.	1.20.0

Table 2. Continued.

Hunt			Har	vest	Hunter	Days/	First-choice	Drawing
area	Year	Permits	M	F	success (%)	hunter ^a	applicants	odds
	1986	8	2	6	100	6.7	35	1:4.4
	1987	8	5	3	100	6.2	37	1:4.6
	1988	8	7	0	88	8.0	32	1:4.0
	1989	8	6	1	88	3.9	40	1:5.0
	1990	8	4	3	88	5.9	25	1:3.1
	1991	5	1	1	40	7.4	36	1:7.2
	1992	5	1	1	40	2.9	15	1:3.0
	1993	5	3	2	100	5.7	26	1:5.2
	1994	5	3	2	100	4.3	21	1:4.2
	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
	2005	4	3	1	100	3.3	37	1:9.3
	2006	4	3	0	75	4.0	26	1:6.5

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

b Unit 43 was closed to hunting from 1995-2004.
c Data is for Hunt Area 43, which includes portions of Units 43 and 36.

PROGRESS REPORT SURVEYS AND INVENTORY

STATE:	Idaho	JOB TITLE:	Mountain Goat Surveys and
PROJECT:	W-170-R-31		Inventories
SUBPROJECT:	6	STUDY NAME:	Big Game Population Status,
STUDY:	I		Trends, Use, and Associated
JOB:	5		Habitat Studies

PERIOD COVERED: July 1, 2006 to June 30, 2007

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 had a high of 5 hunt areas and 40 total permits in the late 1980s and early 1990s to now having 3 hunts with 10 total permits offered in 2006 (Table 1). Out of the 10 permits offered, 8 mountain goats were harvested (80% success) as determined by mandatory harvest reports. Drawing odds were 1:7.5 (Hunt Area 50), 1:18.5 (Hunt Area 51), and 1:23.0 (Hunt Area 67). The reduction of tags was due to dramatic declines in mountain goat populations over the last 15 years in Upper Snake Region. This population decline had led to the closure of 3 hunt areas by 2003.

Climatic Conditions

Spring and summer weather conditions during 2006 were warm and dry. Winter precipitation was very low and winter temperatures were highly variable with some very cold temperatures seen. This created difficult snow conditions in some high elevation areas. Spring 2007 has been incredibly dry.

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 winter 1981-1982. Unit 49 was added to this hunt (Appendix A) in 2001.

Population Surveys

A helicopter survey was most recently conducted in Unit 50 in August 2004 (Table 2). 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 2006 (Table 3), resulting in the harvest of 1 male mountain goat (50% hunter success). Drawing odds were 1:7.5 in 2006. Mean age of harvested goats was 8. Mean horn length was 6.5 inches, and mean circumference was 4.87 inches. Days hunted was 7.

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 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 2).

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.

Mountain goats have typically not been found on the west side of Unit 51 (Lost River Range) but in recent years, sightings of a few animals have been reported there.

One controlled hunt (Appendix A) with a total of 6 permits was held in these units in 2006.

Population Surveys

A population survey was most recently flown in Hunt Area 51 in August 2005. A total of 67 mountain goats with a kid:adult ratio of 20.8:100 were counted (Table 2). This number is down significantly from the previous and historical high count for the area of 157. This information prompted a permit reduction from 6 to 4 for the 2007 season.

Population surveys were conducted in Units 59 and 59A in August 2001 and again in September 2002 (Table 2). A Bell G47 helicopter was used to conduct the surveys. No goats were found in Unit 59 in 2001 or 2002 despite good counting conditions and the same areas being surveyed by the same observer as in the previous (1994) survey. A total of 25 mountain goats were counted in Unit 59 in 1994. The observed kid:adult ratio was 79:100, and no twin sets were identified. The 25 mountain goats counted on this survey represented a decrease of 46% from the next most recent survey (1986). No goats could be found on the Montana side of the range (Garfield Peak, Lima Peaks, and upper Shineberger Creek) in 2002.

The 2001 survey of Unit 59A accounted for only 25 mountain goats (Table 2). This total represents an 80% decrease from the previous survey (1994). Counting conditions were good during this survey, and again, the same areas were surveyed by the same observer, pilot, and aircraft as the previous surveys. The 1994 survey results included a total count of 128 mountain

goats with 39 kids:100 adults (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.

Despite good counting conditions during early September 2002 in Hunt Areas 59 and 59A counts were down dramatically in all areas. 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. The survey was conducted by the same observer, but a different pilot and aircraft than the 1994 and 2001 surveys. No goats were observed in Unit 59 (25 goats were counted in 1994) and only 22 goats were tallied in Unit 59A, compared to 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.

The most recent surveys in Units 59 and 59A were conducted in August of 2006. This survey resulted in observations of 2 adult goats and 0 kids in Unit 59 and 20 adults and 7 kids in Unit 59A/58.

Harvest Characteristics

A total of 6 permits were issued for Hunt Area 51 in 2006 (Table 3). Five hunters were successful in harvesting mountain goats (83% hunter success), based on mandatory harvest reports. All 5 goats harvested in Hunt Area 51 were male. Drawing odds were 1:18.5 for Hunt Area 51 in 2006. Mean age of harvested goats was 6.1. Mean horn length was 8.68 inches, and mean circumference was 4.9 inches. Mean days hunted was 4.8.

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 decreased from 6 to 3 due to reduced populations in the most recent survey. 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 2).

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 only 42 mountain goats with a kid:adult ratio of 20:100 was counted in the Mt. Baird portion of Unit 67 (Table 2). This was the fewest goats counted in this area since before 1982. This survey was disappointing in that no goats could be found in the Mt. Baldy portion of Unit 67 (Table 2). What was even more disappointing was that the goat dust beds and trails so prominent 10 years ago no longer exist, suggesting goats no longer use this area. 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. 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. Reasons for this decline are largely unknown and the hunt was closed in 2003.

The most recent summer 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 one. 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 where 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. The lower count from summer to winter is most likely due to sightability differences between summer and winter.

The most recent summer survey in Unit 67 occurred in August 2006. Mountain goat numbers remained fairly stable relative to the 2004 survey with 119 animals observed south of Palisades Creek and 16 north of Palisades Creek for a total of 135 goats.

Harvest Characteristics

2006 was the second year this population has been hunted after a 2-year rest from harvest. Of the 2 permits issued, 2 animals were harvested (100% hunter success) based on mandatory harvest reports. Both goats harvested in Hunt Area 67 were female. Drawing odds were 1:23.0 for Hunt Area 67 in 2006. Mean age of harvested goats was 6.5. Mean horn length was 8.68 inches, and mean circumference was 4.43 inches. Mean days hunted was 4.5.

Habitat Conditions

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

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

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

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 rebound are still unknown. The hunt was closed for the 2003 and 2004 seasons and reopened for the 2005 and 2006 seasons; 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 harvest and drawing odds, Upper Snake Region, 1981-present.

		Н	larvest		Hunter	First-choice	Drawing
Year	Permits	M	F	Total	success (%)	applicants	odds
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
2005	10	7	2	9	90	210	1:21.0
2006	10	6	2	8	80	192	1:17.2

Table 2. Mountain goat surveys, Upper Snake Region, 1982-present.

Unit	Inclusive location	Year	A dulte	Kids	Unknown	Total	Kids/100
Unit 49	Inclusive location (in Hunt Area 50)	1992	Adults 8	Kids 2	Unknown 0	10tai 10	adults 25.0
49	(in Hunt Area 50)	2000					
		2000 2004 ^a	22 31	1	0	23 34	4.5 9.6
50	That naution nauth and wast of	2004 1982 ^a		3	0		23.1
50	That portion north and west of		13	3	0	16	
	the Trail Creek Road and south	1985 ^a	9	2	0	11	22.2
	and west of U.S. Highway 93	1992 ^a	13	0	0	13	0.0
	(in Hunt Area 36A-1)	1999 ^a	26	4	0	30	15.4
		2004 ^c	13	3	0	16	23.1
	That portion south and east of	1982 ^a	37	8	0	45	21.6
	the Trail Creek road and south	1985 ^a	66	20	6	92	30.3
	and west of U.S. Highway 93	1992 ^a	45	4	0	49	8.9
	(in Hunt Area 50)	1999 ^a	40	10	0	50	25.0
		2004 ^a	31	7	0	38	22.6
51	Lemhi Range South of	1982 ^a	75	22	0	97	29.3
	the Big Timber Creek drainage	1986°	68	15	17	101	22.1
		1987 ^b	100	30	0	130	30.0
		1992 ^a	54	7	0	61	13.0
		2000^{a}	125	32	0	157	25.6
		2005 ^a	67	14	0	82	20.8
59	Red Conglomerates	1986°	32	14	0	46	43.8
		1994 ^a	14	11	0	25	78.6
		2001 ^a	0	0	0	0	
		2002^{a}	0	0	0	0	
		2006^{a}	2	0	0	2	0.0
59A	Italian Peaks	1982^{a}	46	13	0	59	28.3
		1986°	10	3	0	13	30.0
		1991 ^b	61	24	4	89	39.3
		1994 ^a	92	36	0	128	39.1
		2001 ^a	16	4	0	20	25.0
		2002^{a}	18	4	0	22	22.2
		2006^{a}	20	7	0	27	35.0
57	South of Palisades Creek	1982 ^a	33	13	0	46	39.4
	(Mt. Baird area)	1985 ^a	35	16	0	51	45.7
		1986 ^b	0	0	104	104	
		1986 ^a	37	15	0	52	40.5
		1988^{b}	71	21	0	92	29.6
		1990^{b}	45	18	0	63	40.0
		1993 ^b	104	33	16	153	31.7
		1994 ^a	73	42	0	115	57.5
		1996 ^a	151	66	0	217	43.7
		1998 ^a	118	45	0	163	38.1
		2000 ^a	61	29	0	90	47.5
		2002 ^a	35	7	0	42	20.0
		2004 ^a	84	24	0	108	28.5
		2005°	47	15	0	62	31.9
		2000	-T/	10	9	02	51.7

Table 2. Continued.

							Kids/100
Unit	Inclusive location	Year	Adults	Kids	Unknown	Total	adults
	North of Palisades Creek	1982 ^a	45	12	0	57	26.7
	(Mt. Baldy area)	1985 ^a	31	8	0	39	25.8
		1986 ^b	0	0	126	126	
		1986 ^a	38	19	49	106	50.0
		1987 ^b	72	28	0	100	38.9
		1988 ^b	91	31	0	122	34.1
		1989 ^b	35	12	0	47	34.3
		1990 ^b	73	22	0	95	30.1
		1994 ^a	41	20	0	61	48.8
		1996 ^a	47	17	0	64	36.2
		1998 ^a	26	7	0	33	26.9
		2000^{a}	9	5	0	14	55.6
		2002^{a}	0	0	0	0	
		2004^{a}	4	2	0	6	50.0
		2005 ^c	8	4	0	12	50.0
		2006 ^a	13	3	0	16	23.0

a Summer Helicopter count.
 b Ground count.
 c Winter Helicopter count.

Table 3. Mountain goat harvest and drawing odds by hunt area, Upper Snake Region, 1997-present.

Hunt			Harvest	t	Hunter	Days/	First-choice	e Drawing
area	Year	Permits	M	F	success (%)	hunter	applicants	odds
50	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
	2005	2	1	1	100	3.0	26	1:13.0
	2006	2	1	0	50	7.0	15	1:7.5
51	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
	2005	6	4	1	83	3.2	115	1:19.1
	2006	6	5	0	83	4.8	111	1:18.5
59A ^a	1997	5	4	1	100	3.6	43	1:8.6
	1998	5	4	0	80	5.3	36	1:7.2
	1999	5	3	1	80	7.5	49	1:9.8
	2000	5	3	1	80	3.5	45	1:9.0
	2001	5	2	2	80	4.5	34	1:6.8
67 ^a	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	3	3	0	100	10.3	45	1:15.0
	2005	2	2	0	100	1.0	69	1:34.5
	2006	2	0	2	100	4.5	46	1:23.0

^a Unit 59A was closed beginning in 2002 and Unit 67 was closed in 2003 and 2004.

Table 4. Mountain goat translocation, Upper Snake Region, 1969-1997.

			Adults		Ki	ds	
Year	Capture site-Unit	Release site-Unit	M	F	M	F	Total
1969	Snow Peak-9	Palisades Creek-67	1	2	0	0	3
	Black Mtn-9A	Palisades Creek-67	1	1	0	0	2
1970	Black Mtn-9A	Black Canyon-67	3	0	0	0	3
	Black Mtn-9A	Black Canyon-67	1	2	1	0	4
1989	Mt Baldy-67	Williams Creek-28	1	1	0	0	2
1990	Mt Baldy-67	Panther Creek-28	2	3	0	2	7
1991	Mt Baldy-67	Panther Creek-28	1	4	0	1	6
1992	Mt Baldy-67	Panther Creek-28	2	9	0	0	11
1994	Mt Baird-67	Square Top-21	4	6	0	0	10
1997	Mt Baird-67	Corn Lakes-21	4	6	0	0	10

PROGRESS REPORT SURVEYS AND INVENTORY

Idaho	JOB TITLE:	Mountain Goat Surveys and
W-170-R-31		Inventories
7	STUDY NAME:	Big Game Population Status,
I		Trends, Use, and Associated
5		Habitat Studies
	W-170-R-31	W-170-R-31

PERIOD COVERED: July 1, 2006 to June 30, 2007

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, 36-1 36A-1, 36A-2, 36A-3, 36A-4, 36B, 37A

Abstract

During 2006, 29 permits for mountain goats were available in 11 hunt areas. Twenty-three (79%) hunters were successful and 19 (83%) harvested animals were males. Chances of drawing a permit for mountain goats in Salmon Region were 1:8.7 in 2006.

Aerial surveys specifically for mountain goats were conducted in Units 27, 29, 36, and 37A during January-February 2007. Surveys yielded 84 individuals with an overall kid ratio of 16.7 per 100 adults. Conditions for observing mountain goats were generally fair in all areas surveyed. Overall, number of goats observed in comparable survey areas was 23% below that of previous surveys. 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

Rainfall during summer months in 2006 was average to below average, with cool, wet weather during late spring. Vegetative growth appeared above average early in the season. Vegetation growth and production was very good during early summer, but then quickly cured out over the late summer and early fall months. Winter conditions were generally moderate, with temperatures normal to above normal, and snow accumulation at lower elevations was below

average. In general, animals entered winter in average body condition, then encountered an average to mild winter, which should have produced moderate to high over-winter survival. Snow-pack (as measured at higher elevations) was approximately 80-90% of average by late winter. Onset of spring weather and associated plant phenology was near normal in 2007. Water-year precipitation to date has been approximately 130% of average. Early spring conditions were cool and wet.

Background

Most herds winter at low elevations on south-facing cliffs, where curl-leaf 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. Some 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 2007, 84 mountain goats were observed during aerial surveys of Units 27, 29, 36, and 37A. Observed age ratio was 16.7 kids per 100 adults.

Mountain goat numbers in Units 29/37A were approximately 50% below those from the previous survey, in part likely due to unfavorable survey conditions. The ratio of kids per 100 adults in Unit 29/37A was moderate at 21.1. Within Units 27 and 36 (Hunt Areas 27-1 and 27-2) total numbers were very similar to previous surveys. The kid ratio was also moderate in these areas (15.4/100).

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; and (2) authorize hunts only for herds consisting of ≥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 (Table 2). From 1986 to 1994, the number of permits increased to 32 as several hunts were reinstated and permit levels were increased in existing hunts. Permits were reduced in 1995 and fluctuated between 21 (1995) to 25 (2002) to 18 in 2003 and 2004 (Tables 2 and 3). Based on increased mountain goat numbers in several hunt areas, permit levels for 2005 were significantly increased. One new hunt area (37A) was opened for harvest and 2 hunts were reinstated (27-2 and 36-1).

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. Eleven controlled hunts with 29 permits were authorized for 2006 in Salmon Region. Hunters could harvest a mountain goat of either sex, except females accompanied by kids were protected. Success among 29 permitted hunters was 79% in 2006. Of 23 mountain goats, 19 were males. During 75-day seasons, region-wide hunter success has averaged 86% since 1995 and males have comprised 69% 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 and chances of drawing were <14%. Since 2003, drawing success has stabilized at approximately 11%. 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, southfacing 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 15-20 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 ≥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							V:da/100
Hunt	Year	Inclusive location	Adults	Kids	Unk.	Total	Kids/100 adults
area 21	1996	Lost Trail - Hughes Cr.	8	2	0	10111	25.0
21	1990	Hughes Cr Horse Cr.	26	4	0	30	15.4
	2001	Hughes Cr Horse Cr. Hughes Cr Horse Cr.	5	1	0	6	20.0
	2001	Lost Trail - Hughes Cr.	7	2	0	9	28.6
	2003		28	8	0	36	28.6
27	1993 ^a	Hughes Cr Horse Cr. Waterfall Cr Goat Cr.				16	
21	1993		15 0	$\frac{1}{0}$	$0 \\ 0$	0	6.7 0.0
	1999 ^a	Big Cr Soldier Cr.	21	3		24	
	1999	Rapid River - Headwaters			0		14.3
		Waterfall Cr Goat Cr.	14	1	0	15	7.1
		Big Cr Soldier Cr.	5	1	0	6	20.0
	annab	Marble Cr Indian Cr.	18	2	0	20	11.1
	2002 ^b	Marble Cr Indian Cr.	6	1	0	7	16.7
	2004	Upper Middle Fork	11	2	0	13	18.2
	2004	Waterfall Cr Goat Cr.	15	2	0	17	13.3
	2006	Big Cr Soldier Cr.	4	0	0	4	0.0
	2006	Rapid River - Headwaters	35	6	0	41	17.1
		Waterfall Cr Goat Cr.	10	1	0	11	10.0
		Big Cr Soldier Cr.	3	1	0	4	33.0
07.1	1000	Marble Cr Pistol Cr.	28	5	0	33	17.9
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 ^a	E. Fork Mayfield Cr.	7	1	0	8	14.3
	2002 ^a	Mayfield Cr Yankee Fork	8	2	0	10	25.0
	2006 ^b	E. Fork Mayfield Cr.	5	1	0	6	20.0
27.2	2007	Mayfield Cr Yankee Fork	12	3	0	15	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 ^a	Trail Cr China Cr.	37	4	0	41	10.8
	2002 ^a	Trail Cr China Cr.	38	7	0	45	18.4
	2007	Trail Cr China Cr.	40	5	0	45	12.5
27-3	1993 ^a	Meyers Cove - Falconberry	37	7	0	44	18.9
	1999 ^a	Meyers Cove - Falconberry	37	4	0	41	10.8
	2002 ^a	Meyers Cove - Falconberry	15	3	0	18	20.0
	2004	Meyers Cove - Falconberry	16	3	0	19	18.8
	2006	Meyers Cove - Falconberry	18	0	0	18	0
27-4	1993 ^a	Yellowjacket Cr Waterfall Cr.	49	8	0	57	16.3
	1999 ^a	Yellowjacket Cr Waterfall Cr.	57	6	0	63	10.5
	2001	Camas Cr Yellowjacket Cr.	30	7	0	37	23.3
	2002^{a}	Yellowjacket Cr Waterfall Cr.	2	3	0	5	150.0

Table 1. Continued.

Hunt							Kids/100
area	Year	Inclusive location	Adults	Kids	Unk.	Total	adults
		Camas Cr Yellowjacket Cr. ^b	6	0	0	6	0.0
	2004	Yellowjacket Cr Waterfall Cr.	36	11	0	47	30.6
	2005^{b}	Camas Cr Reservoir Cr.	24	4	0	28	16.7
	2006	Yellowjacket Cr Waterfall Cr.	38	12	0	50	31.6
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 ^a	Upper Camas Cr.	5	0	0	5	0.0
		Iron Cr Moyer Cr. ^b	21	2	0	23	9.5
	2001	Cobalt - Garden Cr.	2	0	0	2	0.0
		Iron Cr Moyer Cr.	17	3	0	20	17.6
		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
30	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^{a}	Sheep Cr Goat Mt.	53	2	0	55	3.8
	2006	Sheep Cr Goat Mt.	45	7	0	52	15.6
36	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
36-1	1988	Elk Cr Redfish Lake	27	7	0	34	25.9
	1994	Elk Cr Redfish Lake	22	0	0	22	0.0
	2003°	Elk Cr Redfish Lake	14	5	0	19	35.7
	2004	Elk Cr Redfish Lake	50	13	0	63	26.0
36-2	1988	Redfish Lake - Alturas Cr.	39	7	0	46	17.9
	1994	Redfish Lake - Alturas Cr.	28	7	0	35	25.0
	2003	Redfish Lake - Alturas Cr.	44	5	0	49	11.4
	2004	Redfish Lake - Alturas Cr.	51	11	0	62	21.6
36A-1	1988	E Pass Cr W Pass Cr.	37	13	0	50	35.1
	1994	E Pass Cr W Pass Cr.	38	10	0	48	26.3
	2002^{a}	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-2	1988	Above W Pass Cr.	33	9	0	42	27.3
	1994	Above W Pass Cr.	36	7	0	43	19.4
	2002^{a}	Above W Pass Cr.	21	6	0	27	28.6
	2004	Above W Pass Cr.	33	9	0	42	27.3
36A-3	1988	Warm Springs Cr Wickiup Cr.	61	18	0	79	29.5
	1994	Warm Springs Cr Wickiup Cr.	48	8	0	56	16.7
	2002 ^a	Warm Springs Cr Wickiup Cr.	22	1	0	23	4.5

Table 1. Continued.

Hunt							Kids/100
area	Year	Inclusive location	Adults	Kids	Unk.	Total	adults
	2004	Warm Springs Cr Wickiup Cr.	49	15	0	64	30.6
36A-4	1988	Germania Cr 4 th July Cr.	86	21	0	107	24.4
	1994	Germania Cr 4 th July Cr.	65	6	0	71	9.2
	2002^{a}	Germania Cr 4 th 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^{a}	Mill Cr Ramey Cr.	24	2	0	26	8.3
	2006	Mill Cr Ramey Cr.	67	20	0	87	29.9
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
	2007	Above Patterson Cr. & other	6	2	0	8	25.0
		Mahogany - Patterson	2	0	0	2	0.0
		Morse Cr Falls Cr.	6	1	0	7	16.7
		Poison Peak - Tater Cr.	5	1	0	6	20.0

a Spring green-up count.
b Incidental to elk survey.
c Incomplete survey covered Redfish Lake to Fishhook Cr.

Table 2. Mountain goat harvest and drawing odds, Salmon Region, 1979-present.

		Н	arvest		Hunter	First-choice	Drawing
Year	Permits	M	F	Total	success (%)	applicants	odds
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 ^a	14	5	19	86	201	1:8.4
2001	27 ^a	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
2005	29	16	7	23	79	237	1:8.2
2006	29	19	4	23	79	221	1:8.7

^a 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, 1997-present.

Hunt			Har	vest	Hunter	Days/	First-choice	Drawing
area	Year	Permits	M	F	success (%)	hunter	applicants	odds
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
	2005	1	1	0	100	2.0	11	1:11.0
	2006	1	1	0	100	9.0	10	1:10.0
27-3	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
	2005	1	0	1	100		8	1:8.0
	2006	1	1	0	100	2.0	5	1:5.0
27-4	1999	2	2	0	100	4.8	13	1:6.5
	2000	2^{a}	0	0			13	1:6.5
	2001	4 ^a	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
	2005	2	0	0	0		15	1:7.5
	2006	2	0	0	0		16	1:8.0
30	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
	2005	2	1	1	100	3.5	22	1:11.0
	2006	2	2	0	100	3.0	23	1:11.5
36-1	2005	4	1	1	50	4.5	26	1:6.5
	2006	4	2	0	50	16.0	14	1:3.5
36A-1	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

Table 3. Continued.

Hunt			Har	vest	Hunter	Days/	First-choice	Drawing
area	Year	Permits	M	F	success (%)	hunter	applicants	odds
	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
	2005	5	3 ^b	1^{b}	80	7.3	56	1:11.2
	2006	5	3^{b}	1^{b}	80	4.0	44	1:8.8
36A-2	1997	2	1	1	100	4.5	7	1:3.5
	1998	2	0	2	100	1.5	17	1:8.5
	1999	2	2	0	100	4.5	8	1:4.0
	2000	2	1	1	100	3.5	27	1:13.5
	2001	2	1	1	100	5.5	13	1:6.5
	2002	2	2	0	100	3.5	12	1:6.0
	2003	2	1	0	50	14.0	16	1:8.0
	2004	2	2	0	100	4.5	10	1:5.0
	2005	3	1	1	67	4.0	33	1:11.0
	2006	3	1	1	67	2.0	12	1:4.0
36A-3	1997	2	1	1	100	2.5	12	1:6.0
	1998	2	2	0	100	3.0	12	1:6.0
	1999	2	2	0	100	3.0	11	1:5.5
	2000	2	2	0	100	3.5	13	1:6.5
	2001	2	1	0	50	2.0	14	1:7.0
	2002	2	2	0	100	2.0	15	1:7.5
	2003	2	1	0	50	3.0	15	1:7.5
	2004	2	2	0	100	1.0	19	1:9.5
	2005	2	2	0	100	6.5	19	1:9.5
	2006	2	2	0	100	2.0	17	1:8.5
36A-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
	2003	2	2	0	100	1.5	35	1:17.5
	2004	2	1	1	100	1.0	17	1:8.5
	2005	4	3	1	100	2.8	45	1:11.3
	2006	4	2	2	100	8.0	36	1:9.0
36B	1997	4	2	2 2 2	100	3.0	30	1:7.5
	1998	4	2		100	3.5	23	1:5.8
	1999	4	2 2 2 3 3	1	100	6.0	35	1:8.8
	2000	4		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

Table 3. Continued.

Hunt			Har	vest	Hunter	Days/	First-choice	Drawing
area	Year	Permits	M	F	success (%)	hunter	applicants	odds
	2005	4	3	1	100	5.8	28	1:7.0
	2006	4	4	0	100	2.0	63	1:15.8
37A	2005	1	1	0	100	3.0	13	1:13.0
	2006	1	1	0	100	16.0	12	1:12.0

^a Both permits were deferred until 2001 season.
^b Includes 1 animal actually harvested in area 36A-2.

Table 4. Approved mountain goat release sites, Salmon Region.

			No. goats to	No. released
Unit	Location	Release method	release	to date
21 ^a	Horse Creek	Helicopter	30	20
21	Beartrap Springs	Vehicle	10	0
27 ^a	Goat Creek	Helicopter	10-20	0
27 ^a	Tumble/Parrot Creek	Helicopter	10	0
27 ^a	Ship Island Creek	Helicopter	20-30	8
27 ^a	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

a Designated wilderness, helicopter use authorized by USFS.

Table 5. Mountain goat translocation, Salmon Region, 1982-1997.

			Ad	ults	Ki	ds	
Year	Capture site-Unit	Release site-Unit	M	F	M	F	Total
1982	Olympic Park, WA	Patterson Cr37A	8	12	0	0	20
1989	Snow Peak-9	Jack Cr27	0	1	0	0	1
	Black Mtn-10	Jack Cr27	2	4	0	0	6
	Mt Baldy-67	Williams Cr28	1	1	0	0	2
1990	Swan Valley-67	Pine Cr28	1	0	0	0	1
	Mt Baldy-67	Panther Cr28	1	3	0	2	6
1991	Black Mtn-10	Ship Island Cr27	4	4	0	0	8
	Mt Baldy-67	Panther Cr28	1	4	0	1	6
1992	Mt Baldy-67	Panther Cr28	2	9	0	0	11
1994	Mt Baird-67	Square Top Mt21	4	6	0	0	10
1997	Big Elk Cr67	Corn Lake-21	4	6	0	0	10

APPENDIX A

IDAHO

2006 SEASON

MOUNTAIN GOAT RULES



Moose, Bighorn Sheep and Mountain Goat







- Controlled Hunt application period: April 1 - April 30
- Persons applying for controlled hunts MUST submit tag and application fees.
 See pages 5-6.
- New information is highlighted.



2005 & 2006 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.

2005 & 2006 MOUNTAIN GOAT CONTROLLED HUNTS - EITHER SEX - 57 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	
6004	Aug 30 - Nov 12	22	4	
6005	Aug 30 -Nov 12	27-2*	1	NEW HUNT
6006	Aug 30 - Nov 12	27-3	1	
6007	Aug 30 - Nov 12	27-4*	2	
6008	Aug 30 - Nov 12	30*	2	20.0011
6009	Aug 30 - Nov 12	36-1	4	NEW HUNT
6010	Aug 30 - Nov 12	36A-1*	5	Boundary Change.
6011	Aug 30 - Nov 12	36A-2*	3	Boundary Change.
6012	Aug 30 - Nov 12	36A-3*	2	
6013	Aug 30 - Nov 12	36A-4*	4	
6014	Aug 30 - Nov 12	36B*	4	
6015	Aug 30 - Nov 12	37A*	1	NEW HUNT
6016	Aug 30 - Nov 12	39-1	2	NEW HUNT
6017	Aug 30 - Nov 12	43*	2	NEW HUNT
6018	Aug 30 - Nov 12	48*	2	Boundary Change.
6019	Aug 30 - Nov 12	50*	2	
6020	Aug 30 - Nov 12	51*	6	Boundary Change.
6021	Aug 30 - Nov 12	67	2	Boundary Change.

*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 27-2 — That portion of Unit 27 south of Forest Service Road 172 from Loon Creek Summit to Loon Creek guard station, Pinyon Peak, and Feltham Creek Point, and that portion of Unit 36 west of Forest Service Road 172 and north of the Pioneer Creek-West Fork Yankee Fork Trail, Forest Service Trail 113-155.

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 36-1 — That portion of Unit 36 west of State Highway 75 from Stanley to Alturas Lake Creek and south of State Highway 21.

Hunt Area 36A-1— That portion of Unit 50 north of Trail Creek Road and west of U.S. 93, 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; and that portion of Unit 48 within the Big Wood River drainage east of State Highway 75 and downstream from and including the North Fork of the Big Wood River drainage.

Hunt Area 36A-2—That portion of Unit 36A, including the 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; and that portion of Unit 48 within the Big Wood River drainage east of State Highway 75 upstream from and excluding the North Fork Big Wood River drainage.

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 37A - All of Units 37A and 29.

Hunt Area 39 — That portion of Unit 39 in the Middle Fork Boise River drainage upstream from, and including, the Queen's River and Yuba River drainages.

Hunt Area 43 — That portion of Unit 36 west of State
Highway 75 and south of Alturas Lake Creek; and all of Unit
43 excluding that area east of Little Smoky Creek and east of
Big Smoky Creek from its mouth upstream to Blind Canyon
Creek and upstream and east of Blind Canyon Creek.

Hunt Area 48—That portion of Unit 48 within the Big Wood River drainage south and west of State Highway 75 upstream from and including the Baker Creek drainage; and that portion of Unit 43 east of Little Smoky Creek and east of Big Smoky Creek from its mouth upstream to Blind Canyon Creek and upstream and east of Blind Canyon Creek.

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 51 east of the Howe-Goldburg Road and that portion of Unit 58 west of State Highway 28

Hunt Area 67 — That portion of Unit 67 south and east of Palisades Creek to the Wyoming line.



Citizens Against Poaching

1-800-632-5999

Report Wildlife Crimes

25

Submitted by:

Jim Hayden Jay Crenshaw Jon Rachael

Regional Wildlife Manager Regional Wildlife Manager Regional Wildlife Manager

Jeff Rohlman Randy Smith Carl Anderson

Regional Wildlife Manager Regional Wildlife Manager Regional Wildlife Manager

Daryl Meints 70m Keegan

Regional Wildlife Manager Regional Wildlife Manager

Approved by: IDAHO DEPARTMENT OF FISH AND GAME

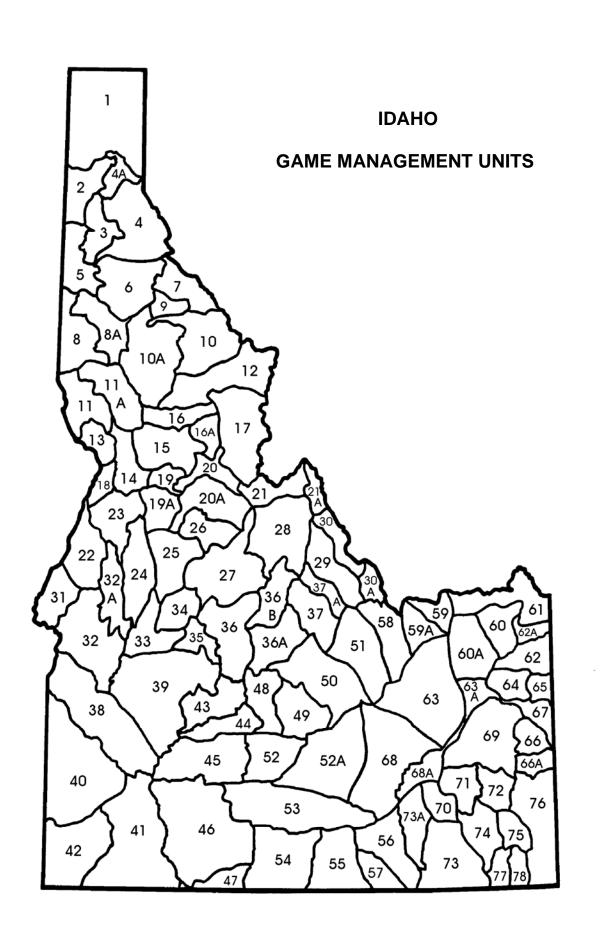
Dale E. Toweill

Wildlife Program Coordinator

Federal Aid Coordinator

James W. Unsworth, Chief

Bureau of Wildlife



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 licensegenerated funds.