

IDAHO DEPARTMENT OF FISH AND GAME

Rod Sando, Director

Project W-170-R-24

Job Progress Report



MOUNTAIN GOAT

Study I, Job 5

Prepared By: Jim Hayden, David K. Spicer Panhandle Region
Jay Crenshaw, George Pauley..... Clearwater Region
Lou Nelson, Neil Johnson..... Southwest Region
Jeff RohlmanSouthwest Region (McCall)
Randy Smith, Bruce Palmer..... Magic Valley Region
Brad Compton, Dave Koehler..... Upper Snake Region
Mike Scott.....Salmon Region

Compiled and Edited by: Dale Toweill

July 1, 1999 to June 30, 2000

September 2000

Boise, Idaho



Findings in this report are preliminary in nature and not for publication without permission of the Director of the Idaho Department of Fish and Game.

The Idaho Department of Fish and Game adheres to all applicable state and federal laws and regulations related to discrimination on the basis of race, color, national origin, age, gender, or handicap. If you feel you have been discriminated against in any program, activity, or facility of the Idaho Department of Fish and Game, or if you desire further information, please write to: Idaho Department of Fish and Game, PO Box 25, Boise, ID 83707; or the Office of Human Resources, U.S. Fish and Wildlife Service, Department of the Interior, Washington, DC 20240.

This publication will be made available in alternative formats upon request. Please contact the Idaho Department of Fish and Game for assistance.

TABLE OF CONTENTS

STATEWIDE.....	1
ABSTRACT.....	1
PANHANDLE REGION	3
ABSTRACT.....	3
CLEARWATER REGION	4
ABSTRACT.....	4
UNITS 10, 12, 15, 16, 16A, 17.....	4
MANAGEMENT DIRECTION	4
BACKGROUND	4
POPULATION SURVEYS	5
HARVEST CHARACTERISTICS.....	6
TRAPPING AND TRANSPLANTING	6
HABITAT AND CLIMATIC CONDITIONS.....	7
MANAGEMENT IMPLICATIONS	7
UNITS 14, 18, 19, 20, 22, 23.....	7
MANAGEMENT DIRECTION	7
BACKGROUND	8
POPULATION SURVEYS	8
HARVEST CHARACTERISTICS.....	8
TRAPPING AND TRANSPLANTING	8
HABITAT AND CLIMATIC CONDITIONS.....	9
MANAGEMENT IMPLICATIONS	9
SOUTHWEST REGION, NAMPA.....	18
ABSTRACT.....	18
SOUTHWEST REGION, MCCALL.....	19
ABSTRACT.....	19
UNITS 19A, 20A, 22, 23, 24, 25, 26.....	19
MANAGEMENT DIRECTION	19
BACKGROUND	19
POPULATION SURVEYS	19
HARVEST CHARACTERISTICS.....	20
MANAGEMENT IMPLICATIONS	20
MAGIC VALLEY REGION	22
ABSTRACT.....	22
UNITS 43, 48, 49.....	22
MANAGEMENT DIRECTION	22
BACKGROUND	22
POPULATION SURVEYS	23
TRANSPLANTS	23

TABLE OF CONTENTS (Continued)

HARVEST CHARACTERISTICS.....23
MANAGEMENT IMPLICATIONS23

UPPER SNAKE REGION.....27
ABSTRACT.....27
UNITS 29, 51, 58, 59A.....27
BACKGROUND28
POPULATION SURVEYS28
HARVEST CHARACTERISTICS.....28
CLIMATIC CONDITIONS.....29
HABITAT CONDITIONS.....29
TRAPPING AND TRANSPLANTING29
MANAGEMENT IMPLICATIONS29

UNIT 50.....29
BACKGROUND29
POPULATION CHARACTERISTICS30
HARVEST CHARACTERISTICS.....30
CLIMATIC CONDITIONS.....30
HABITAT CONDITIONS.....30
TRAPPING AND TRANSPLANTING30
MANAGEMENT IMPLICATIONS30

UNIT 67.....30
BACKGROUND31
POPULATION SURVEYS31
HARVEST CHARACTERISTICS.....32
CLIMATIC CONDITIONS.....32
HABITAT CONDITIONS.....32
TRAPPING AND TRANSPLANTING32
MANAGEMENT IMPLICATIONS33
LITERATURE CITED33

SALMON REGION.....41
ABSTRACT.....41
UNITS 21, 21A, 27, 28, 29, 30, 30A, 36, 36A 36B, 37, 37A.....41
MANAGEMENT DIRECTION41
BACKGROUND41
POPULATION SURVEYS42
HARVEST CHARACTERISTICS.....42
CLIMATIC CONDITIONS.....43
HABITAT CONDITIONS.....43
TRAPPING AND TRANSPLANTING43
MANAGEMENT IMPLICATIONS44

TABLE OF CONTENTS (Continued)

LIST OF TABLES

CLEARWATER REGION

Table 1. Season structure for 1999 controlled, either-sex, mountain goat hunts 10-1 and 10-2 in the Clearwater Region.10

Table 2. Summary of mountain goat surveys in Unit 10, 1991a-present.....10

Table 3. Summary of mountain goat surveys in Unit 17, 1991a -present.....11

Table 4. Summary of mountain goat surveys in Unit 12, 1981-present.12

Table 5. Summary of mountain harvest and drawing odds by hunt area, 1990-present.13

Table 6. Summary of mountain goat transplants in the Clearwater Region, 1962-present.14

Table 7. Season structure for the 1999 controlled, either-sex, mountain goat hunt 18 in the Clearwater Region.14

Table 8. Summary of mountain goat surveys in Unit 18, 1981-present.15

Table 9. Summary of mountain goat surveys in Unit 19, 1981-present.16

Table 10. Summary of mountain goat surveys in Unit 20, 1981-present.17

Table 11. Summary of mountain goat harvest and drawing odds by hunt area in Unit 18, 1990-present.....17

SOUTHWEST REGION

Table 1. Summary of Mountain Goat Observations in Unit 22 of the Southwest Region, 1996 (1995 totals in parenthesis).21

MAGIC VALLEY REGION

Table 1. 1999 Structure for Controlled, Either-Sex Mountain Goat Hunts 648 in the Magic Valley Region.24

Table 2. Summary of Mountain Goat Surveys in Units 43, 48, and 49, 1981-2000.....24

Table 3. Summary of Mountain Goat Transplants in the Magic Valley Region.25

Table 4. Summary of Mountain Goat Harvest and Drawing Odds in Hunt Area 643-1, 643-2, and 643, 1983-1999.25

Table 5. Summary of Mountain Goat Harvest and Drawing Odds in Hunts 648, 648-1, 648-2 and 48, 1983-1999.26

TABLE OF CONTENTS (Continued)

UPPER SNAKE REGION

Table 1. 1999 Season structure for controlled, either-sex mountain goat Hunt Areas 51 and 59A in the Upper Snake Region.34

Table 2. Summary of Mountain Goat Surveys in Units 51, 59, and 59A, 1982-Present.....34

Table 3. Summary of Mountain Goat Harvest and drawing odds by Hunt Area (Hunt Areas 51, 59, and 59A), 1990-1999.....35

Table 4. 1999 Season structure for controlled, either-sex, mountain goat Hunt Area 50 in the Upper Snake Region.36

Table 5. Summary of Mountain Goat Surveys in Unit 50, 1982-Present.36

Table 6. Summary of Mountain Goat Harvest and drawing odds by Hunt Area, (Hunt Area 50) 1990-1999.....37

Table 7. 1999 Season structure for controlled, either-sex, mountain goat Hunt Area 67-1 in the Upper Snake Region.37

Table 8. Summary of Mountain Goat Surveys in Unit 67 South of Palisades Creek, 1982-Present (Mt. Baird area).38

Table 9. Summary of Mountain Goat Surveys in Unit 67 North of Palisades Creek, 1982-Present (Mt. Baldy area).....38

Table 10. Summary of Mountain Goat Harvest and drawing odds by Hunt Area (Hunt Areas 67-1 and 67-2), 1991-1999.39

Table 11. Summary of Mountain Goat Transplants in Unit 67 in the Upper Snake Region.40

SALMON REGION

Table 1. Summary of Mountain Goat Surveys in Unit 21.45

Table 2. Summary of Mountain Goat Surveys in Units 21A and 30.45

Table 3. Summary of Mountain Goat Surveys in Unit 27.46

Table 4. Summary of Mountain Goat Surveys in Unit 28.47

Table 5. Summary of Mountain Goat Surveys in Units 36, 36A, and 36B.47

Table 6. Summary of Mountain Goat Surveys in Units 29 and 37A.48

Table 7. Mountain goat harvest in the Salmon Region.....48

Table 8. Summary of Mountain Goat Harvest and Drawing Odds by Hunt Area.....49

Table 9. 1998 season structure for controlled, either-sex mountain goat hunts in the Salmon Region.....52

Table 10. Approved release sites for mountain goats in the Salmon Region.53

TABLE OF CONTENTS (Continued)

Table 11. Summary of Mountain Goat Transplants in the Salmon Region.....53

LIST OF FIGURES

Figure 1. Mountain Goat Management Units in Idaho.....2

**PROGRESS REPORT
SURVEYS AND INVENTORY**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mountain Goat Surveys</u>
PROJECT:	<u>W-170-R-24</u>		<u>and Inventories</u>
SUBPROJECT:	<u>1-7</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>I</u>		<u>Utilization, and Associated</u>
JOB:	<u>5</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 1999 to June 30, 2000</u>		

MOUNTAIN GOAT - STATEWIDE

ABSTRACT

In 1999 the Idaho Department of Fish and Game identified 17 controlled hunts for mountain goats, and allowed a total of 56 permits for mountain goat hunters. Hunters harvested 48 mountain goats, for a success rate of 86%, as compared with an 84% success rate in 1998 and a 90% success rate in 1997.

Mountain goat permits continue to be highly sought by sportsmen. In 1999 there were 486 first-choice applicants for the 56 available mountain goat permits. All available mountain goat permits were filled from first-choice applicants. Statewide drawing odds were 11.5%; i.e., 1 applicant in 8.7 was successful in the quest for a permit. This compares with drawing odds of 12.3% (1 hunter in 8.2 applicants) and 12.2% (1 hunter in 8.2 applicants) in 1998 and 1997, respectively.

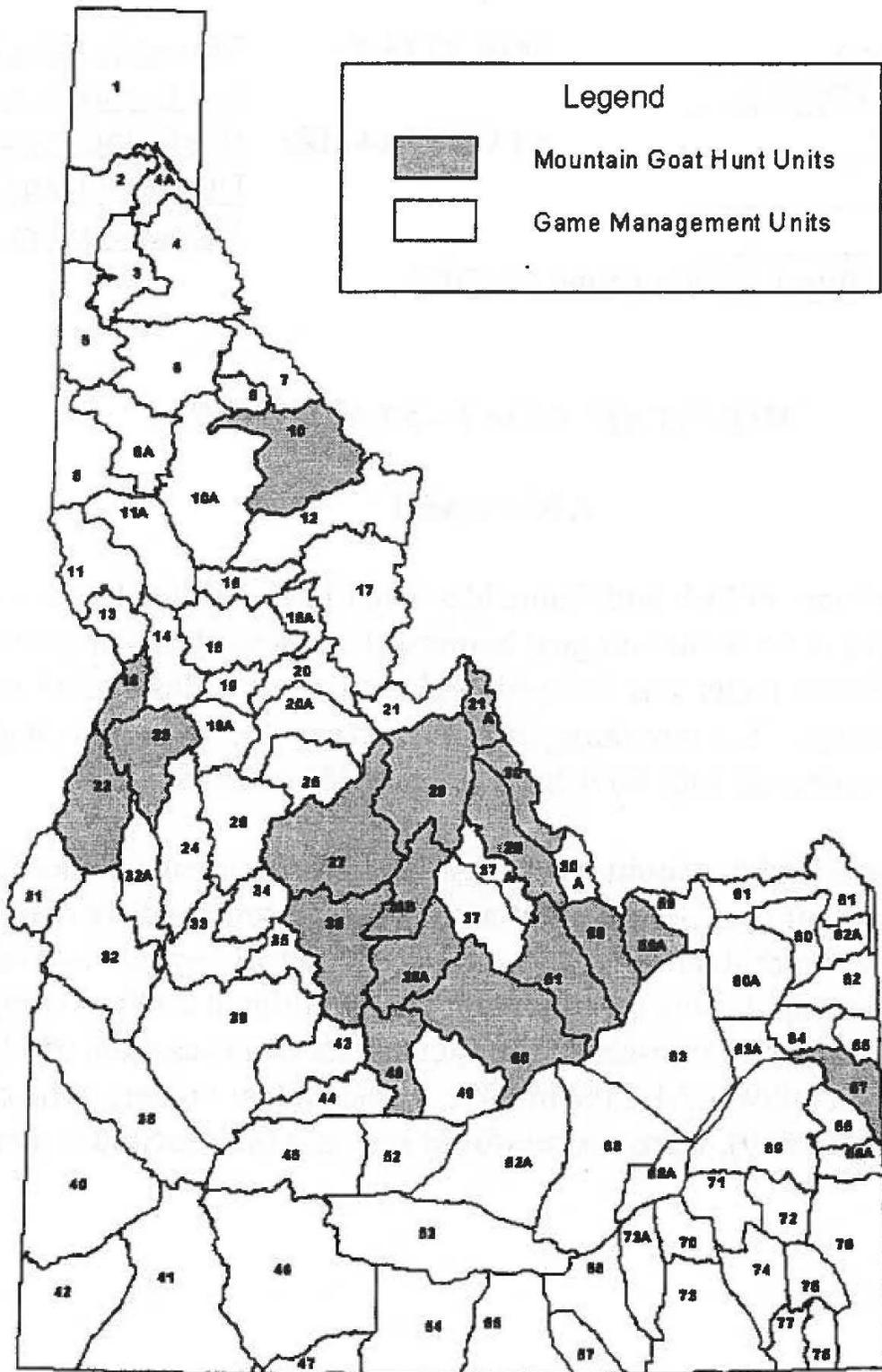


Figure 1. Mountain Goat Management Units in Idaho.

**PROGRESS REPORT
SURVEYS AND INVENTORY**

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

MOUNTAIN GOAT – PANHANDLE REGION

ABSTRACT

Four discrete mountain goat populations exist in the Panhandle Region: the Selkirk and West Cabinet populations in Unit 1, the Bernard Peak population in Unit 4A, and the Snow Peak population in Unit 9. No hunting and no trapping/translocation of mountain goats were allowed during 1999 on any of these populations due to low population sizes. No surveys were conducted on these populations the past year due to a lack of funding.

**PROGRESS REPORT
SURVEYS AND INVENTORY**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mountain Goat Surveys</u>
PROJECT:	<u>W-170-R-24</u>		<u>and Inventories</u>
SUBPROJECT:	<u>2</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>I</u>		<u>Utilization, and Associated</u>
JOB:	<u>5</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 1999 to June 30, 2000</u>		

MOUNTAIN GOAT – CLEARWATER REGION

ABSTRACT

Current management direction allows for limited-entry hunting of mountain goats with conservative permit levels. Many of the mountain goat hunt areas in the Clearwater Region remain closed because of low population levels or the loss of mountain goats entirely from previously occupied range. Translocation to reestablish or augment populations in these areas is a high priority. During controlled hunts in 1999, 9 permittees harvested 9 mountain goats. Paintball mark-resight surveys revealed populations of 54 √ 12 adult mountain goats in Hunt Area 10-1, 44 √ 5 adult mountain goats in Hunt Area 10-2, and 177 √ 49 adult mountain goats in Hunt Area 18. Seven mountain goats were captured in Unit 18 and transplanted into Unit 20 (Big Mallard Creek).

**UNITS 10, 12, 15, 16, 16A, 17
CONTROLLED HUNT AREAS 10-1, 10-2**

A list of controlled hunt units, which were closed prior to 1991, can be found in the Clearwater Region portion of the Department's 1986-1991 Mountain Goat 5-year completion report.

MANAGEMENT DIRECTION

Goals for managing mountain goats in Units 10, 12, 15, 16, 16A, and 17 include increasing populations through conservative hunting levels, trapping and transplanting into vacant habitat or to augment existing populations, maintaining harvest and recreational opportunity, emphasizing nonconsumptive values, inventorying all mountain goat populations at a maximum interval of 5 years, and collecting information on mountain goat diseases.

BACKGROUND

Historically mountain goats were hunted on a general-hunt basis in Idaho north of the Salmon River. As a result some of the easily accessible herds were overhunted or eliminated. From 1966 to present, all mountain goat hunts have been offered as controlled hunts. Hunt areas were originally

quite large, often including several discrete populations of mountain goats. In general the more accessible populations still received the brunt of the harvest. In 1972 the hunts were divided into smaller, more easily manageable units to control and more evenly distribute hunting pressure.

Permit numbers were reduced from 20 hunts with 51 permits in 1977, to 3 hunts with 6 permits in 1984 and 4 hunts with 12 permits in 1989. In 1999 only 3 hunts with 9 permits were offered in the region (Tables 1 and 7).

POPULATION SURVEYS

During April and May of 2000, we conducted a paintball, mark-resight survey of the Black Mountain (10-1 and 10-2) mountain goat population, with 2 objectives:

1. Obtain a precise population estimate for the entire area, as well as individual hunt area estimates.
2. Evaluate the effect of marking on catchability.

On 19 April 2000 we marked 49 mountain goats with orange paintballs in 4.5 flight hours (10.9 mountain goats/hour). On 20-21 April 2000 we marked 42 mountain goats with yellow paintballs including 21 unmarked mountain goats and 21 mountain goats previously marked with orange, in 6.6 flight hours (6.4 mountain goats/hour). We conducted the resight survey on 1 May 2000 in 3.7 flight hours. In addition 4.6 hours of ferry time were required for two round trips.

This provided the data needed to perform Cormack's test of catchability bias and 2 data sets to derive mark-resight population estimates. On the second marking event (applying yellow marks) we observed marked (orange) and unmarked mountain goats, thus providing the first data set for an estimate. The second data were derived from the final resight survey. We used Petersen's algorithm modified following Seber (1982).

Hunt Area	Survey	Total Goats Observed	Marked Goats Observed	Total Number of Marked Goats	Estimate (90% C.I.)
Both	First	43	21	49	101 ∇ 18
Both	Second	33	24	70	98 ∇ 13
10-1	Second	16	10	33	54 ∇ 12
10-2	Second	17	14	37	44 ∇ 5

The data suggest a significant decline in the Black Mountain goat population since the last survey in 1996 (Table 1). At that time we observed 136 mountain goats over both hunt areas, and presumably some mountain goats were missed during the survey. Thus, at a minimum, the population declined 27% over 4 years.

The data provide the needed information to conduct Cormack's test of catchability bias, which is our most significant reservation about this technique. The assumptions of Petersen's estimator can be grouped into 3 categories: 1) Equal catchability, 2) Marks and Resights are iid (independently and identically distributed), and 3) Marks are observed/recorded properly. At the Seven Devils we were concerned about our ability to meet #3 because we had trouble distinguishing purple marks from other dark spots. Our use of bright orange paint precluded this problem. The orange marks are unmistakable. We probably violate #2 to a small extent, although it is unlikely that such a deviation might cause a significant bias. Significant violation of the first assumption was a significant possibility. Painted mountain goats might have lower capture likelihood than unmarked mountain goats. So, we collected this data to evaluate any departure from #1, with the following results:

	<u>Second Period</u>		<u>Resight Survey</u>			
	<u>Unmarked</u>	<u>Orange</u>	<u>Unmarked</u>	<u>Orange</u>	<u>Yellow</u>	<u>Both Colors</u>
*Expected Number	21.4	20.6	9.6	9.2	7.3	6.9
Observed Number	22	21	9	10	7	7

*Number of mountain goats with/without various marks expected to be observed, given the total observed number, under the null model (no catchability bias).

We failed to reject the null hypothesis of no catchability bias ($Z = -0.173$, $P = 0.863$). Observed and expected values agreed very closely. Even with no bias, some variation is expected due to chance. Such close agreement of observed and expected values strongly implies a lack of catchability bias.

HARVEST CHARACTERISTICS

Harvest levels have changed little during the last 10-year period. During 1999, 4 of 4 permittees were successful in hunts 10-1 and 10-2 (Table 5). Drawing odds for the Unit 10 hunts have averaged 1 in 12 over the past 10 years. Unit 12 was closed to mountain goat hunting in 1997 due to the decline in mountain goat numbers revealed by the 1996 survey.

TRAPPING AND TRANSPLANTING

Since 1962 mountain goats have been trapped on Black Mountain (the Clearwater Region) and Snow Peak (the Panhandle Region) to provide stock for transplants within the state. Seventy-five mountain goats have been transplanted at Clearwater Region sites from 1962 to 1999 (Table 6). Plans to trap mountain goats at Black Mountain in 2000 were cancelled because of the population decline revealed by the 2000 survey. Prospects for future trapping are questionable.

HABITAT AND CLIMATIC CONDITIONS

Mountain goat habitat in Units 10, 12, 15, 16, 16A, and 17 is located mainly along the Idaho-Montana border and in rocky cliffs of the North Fork Clearwater, Lochsa, and Selway River drainages. Nearly all of the areas that support mountain goats are under U. S. Forest Service (USFS) ownership and management. Some commercial timberlands are located near mountain goat habitat; however, the majority of mountain goat habitat is in designated Wilderness.

Clearwater Region weather was considered “normal” for 1999-2000. Snowpack was 102% of average, while dry snow conditions resulted in 82% of average snow water equivalent. Winter conditions for big game were favorable throughout the region. A drier-than-normal spring (67% of average precipitation) initiated early snowmelt and green-up.

MANAGEMENT IMPLICATIONS

The population decline in hunt areas 10-1 and 10-2 will lead to more conservative and cautious management of exploitation. Current harvest levels (5-year average = 3.4 mountain goats/year) are below the maximum mountain goat management plan level of 5% (5 mountain goats). However, it is unlikely that any removal of additional mountain goats for transplants would be practical or prudent. Trapping will be suspended until future surveys reveal a positive growth trend and sufficient numbers to sustain removals. Permit levels in hunt areas 10-1 and 10-2 will remain conservative to avoid overexploitation.

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

UNITS 14, 18, 19, 20, 22, 23 CONTROLLED HUNT AREA 18

Hunts were not offered in 1999 in Units 14, 19, and 20. A list of hunts closed prior to 1991 can be found in the Clearwater Region portion of the Department's 1986-1991 Mountain Goat 5-year completion report.

MANAGEMENT DIRECTION

Goals for managing mountain goats in Units 14, 18, 19, and 20 include increasing populations through conservative hunting seasons, trapping and transplanting into vacant habitat or to augment existing populations, maintaining harvest and recreational opportunity, emphasizing nonconsumptive values, inventorying all mountain goat populations at a maximum interval of 5 years, and collecting information on mountain goat diseases.

BACKGROUND

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

POPULATION SURVEYS

A paintball mark-resight survey was conducted in Hunt Area 18 (Units 18 and 22) in 1999, in conjunction with the capture effort. During 3-7 June 1999, 33 mountain goats (28 adults and 5 kids) were marked with permanent, purple dye paintballs. Thirty of the mountain goats were marked during 4.0 flight hours devoted to that purpose (7.5 mountain goats/hour), while 3 were marked incidental to dart capture. During the resight survey (16-17 June 1999), 103 mountain goats were observed, including 84 adults (13 marked) and 19 kids (1 marked). The estimates (Table 8) were of somewhat low precision, and there was concern over potential bias caused by questionable ability to identify marks.

HARVEST CHARACTERISTICS

Many of the mountain goat hunts remained closed in 1999 because of low populations or absence of mountain goats (see Clearwater Region portion of the Department's 1986-1991 mountain goat 5-year completion report). Five permits have been offered each year in the mountain goat hunt in Unit 18 since 1983 (Table 7). Drawing odds for the Unit 18 hunt have averaged 1 in 10 over the past 10 years. In 1999 the 5 permittees harvested 5 mountain goats (Table 11).

TRAPPING AND TRANSPLANTING

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

Mountain goats were captured in Unit 18 with darts fired from a helicopter in 1999. Of the 10 mountain goats captured, 3 were immediately released and 7 (3 nannies, 4 billies) were transplanted into Big Mallard Creek in Unit 20. The capture effort was patterned after the protocol at Olympic National Park where over 300 mountain goats have been captured and removed via darting with Carfentanyl. Capture and transport to the staging area required 1.36 flight hours/mountain goat. Given the mark-resight estimates on population size and a reasonably conservative approach to exploitation rates, up to 10 mountain goats (5 nannies) could be removed every other year for transplants.

HABITAT AND CLIMATIC CONDITIONS

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

Clearwater Region weather was considered “normal” for 1999-2000. Snowpack was 102% of average, while dry snow conditions resulted in 82% of average snow water equivalent. Winter conditions for big game were favorable throughout the region. A drier-than-normal spring (67% of average precipitation) initiated early snowmelt and green-up.

MANAGEMENT IMPLICATIONS

Given the mountain goat management plan guidelines and the 1999 Hunt Area 18 mark-resight population estimate, with continued harvest, up to 10 mountain goats (5 nannies) could be removed for transplants every other year. The total exploitation level would be below 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. Season structure for 1999 controlled, either-sex, mountain goat hunts 10-1 and 10-2 in the Clearwater Region.

Hunt Areas	Season	
	Dates	Length (Days)
10-1, 10-2	8/30-11/12	75

Table 2. Summary of mountain goat surveys in Unit 10, 1991a-present.

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

^a Boundaries in Unit 10 changed in 1991 to include old Unit 9A

^b Paintball, mark-resight survey (19 April–1 May 2000).

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

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	<u>Ratio</u> Kid:100 Adult
1991	17	E. Fork. Moose Cr.	25	7	0	32	28.0
1994			25	5	0	30	20.0
1991		White Cap Cr.	23	6	0	29	26.1
1994			25	2	0	27	8.0
1991		Canyon Cr.	21	12	0	33	57.1
1994			14	6	0	20	42.9
1991		Copper Cr.	3	0	0	3	0.0
1994			0	0	0	0	--
1991		Paradise Cr.	8	0	0	8	0.0
1994			4	0	0	4	0.0
1991		Cub Cr.	10	5	0	15	50.0
1994			3	0	0	3	0.0
1991		Brushy Fork Cr.	10	5	0	15	50.0
1994			12	4	0	16	33.3
1991		Bear Cr.	4	3	0	7	75.0
1994			9	2	0	11	22.2
1991		Upper Selway (Above Magruder Crossing)	14	5	0	19	35.7
1994			16	2	0	18	12.5
1991		Little Clear. To Echo Cr.	4	1	0	5	25.0
1994			6	0	0	6	0.0
1991		Snake Cr.	0	0	0	0	--
1994			1	0	0	1	0.0
1991 ^b		Goat Cr.	--	--	--	--	--
1994			11	3	0	14	27.3
1991		Grouse Cr./ Running Cr.	0	0	0	0	--
1994			0	0	0	0	--
1991		Stewart Cr.	0	0	0	0	--
1994			1	0	0	1	0.0
1991		TOTAL	122	44	0	166	36.1
1994			127	24	0	151	18.9

^a Mountain goats were first surveyed in this unit by helicopter in 1991.

^b Goat Creek was not surveyed in 1991.

Table 4. Summary of mountain goat surveys in Unit 12, 1981-present.

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

^a Drainage not included in survey.

Table 5. Summary of mountain harvest and drawing odds by hunt area, 1990-present.

Area	Year	No. Permits	Harvest		Hunter Success	Days/Hunter	Total First Choice Applicants	Drawing Odds
			M	F				
609A-1	1990	2	1	0	50	1.0	24	1:12.0
609A-1 was changed to 610-1 in 1991.								
610-1	1991	2	0	2	100	3.0	25	1:12.5
	1992	2	2	0	100	3.0	25	1:12.5
	1993	2	2	0	100	3.0	18	1:9.0
	1994	2	0	2	100	4.5	28	1:14.0
610-1 was changed to 10-1 in 1995.								
10-1	1995	2	2	0	100	2.0	26	1:13.0
	1996	2	1	0	50	3.0	22	1:11.0
	1997	2	2	0	100	3.5	39	1:19.5
	1998	2	1	0	50	2.0	42	1:21.0
	1999	2	1	1	100	9.0	33	1:16.5
609A-2	1990	2	2	0	100	3.0	19	1:9.5
609A-2 changed to 610-2 in 1991.								
610-2	1991	2	1	1	100	3.5	22	1:11.0
	1992	2	0	1	50	3.5	20	1:10.0
	1993	2	0	2	100	3.0	22	1:11.0
	1994	2	1	0	50	2.0	21	1:10.5
610-2 changed to 10-2 in 1995.								
10-2	1995	2	2	0	100	10	18	1:9.0
	1996	2	1	1	100	3.5	29	1:14.5
	1997	2	0	2	100	2.5	29	1:14.5
	1998	2	2	0	100	1.5	27	1:13.5
	1999	2	1	1	100	11.0	24	1:12.0
612-6	1990	3	1	2	100	6.0	27	1:9.0
612-6 changed to 612 in 1991.								
612	1991	3	2	0	67	2.0	26	1:12.0
	1992	3	1	1	67	4.5	24	1:8.0
	1993	3	0	3	100	1.0	38	1:12.7
	1994	3	1	2	100	2.0	27	1:9.0
612 changed to 12 in 1995.								
12	1995	3	1	1	67	2.7	29	1:9.7
	1996	3	0	2	67	5.5	29	1:9.7
	1997	Closed						
	1998	Closed						

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

Date	Unit and Capture Site	Unit and Release Site	Number of goats				Total
			Adult		Kid		
			M	F	M	F	
June 1962	9-Snow Peak	18-Seven Devils	2	4	2	0	8
July 1964	9-Snow Peak	18-Seven Devils	2	5	0	2	9
June 1966	9-Snow Peak	15-Dome Hill	3	1	0	0	4
June 1966	9A-Black Mtn.	15-Dome Hill	1	3	0	0	4
June 1967	9A-Black Mtn.	15-Dome Hill	1	2	0	0	3
June 1986	9A-Black Mtn	12-Boulder Cr.	2	5	0	0	7
June 1987	9-Snow Peak	19-Oregon Butte	0	8	0	0	8
July 1987	9A-Black Mtn.	19-Oregon Butte	2	2	0	0	4
July 1989	Olympic NP, WA	18-Seven Devils	8	0	0	0	8
June 1991	10-Black Mtn	27-Ship Island Cr	4	4	0	0	8
June 1994	10-Black Mtn	20-Big Squaw Cr.	4	4	0	0	8
June 1996	10-Black Mtn	20-Big Squaw Cr.	0	1	0	0	1
June 1998	10-Black Mtn	15-Johns Cr.	1	0	0	0	1
June 1998	10-Black Mtn	20-Big Squaw Cr.	1	2	0	0	3
June 1999	18-Seven Devils	20-Big Mallard Falls	4	3	0	0	7

Table 7. Season structure for the 1999 controlled, either-sex, mountain goat hunt 18 in the Clearwater Region.

Hunt Area	Season	
	Date	Length (Days)
18	8/30-11/12	75

Table 8. Summary of mountain goat surveys in Unit 18, 1981-present.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio Kid:100 Adult
1981	18	Dry Gulch	20	0	0	20	0.0
1987			0	0	0	0	0.0
1993			49	5	0	54	10.0
1996			0	0	0	0	0.0
1981		Bernard Cr.	29	4	0	33	13.8
1987			15	2	0	16	14.3
1993			3	2	0	5	66.0
1996			19	1	0	20	5.3
1981		Bernard Cr. to Three Cr.	0	0	0	0	0.0
1987			28	7	0	1	0.0
1993			11	4	0	15	36.0
1996			12	1	0	13	8.3
1981		Sheep Cr.	3	0	0	3	0.0
1987			1	0	0	1	0.0
1993			1	0	0	1	0.0
1996			4	0	0	4	0.0
1981		Three Cr.	12	2	0	14	16.7
1987			3	0	0	3	0.0
1993			20	3	0	23	15.0
1996			16	4	0	20	25.0
1981		Granite Cr.	1	0	0	1	0.0
1987			19	3	0	22	15.8
1993			13	3	0	16	23.0
1996			9	1	0	10	11.1
1981		Three Cr. To Granite Cr.	0	0	0	0	0.0
1987			4	0	0	4	0.0
1993			20	3	0	23	15.0
1996			1	0	0	1	0.0
1981		TOTAL	65	6	0	71	9.2
1987			70	12	0	82	17.1
1993			117	20	0	137	17.1
1996			61	7	0	68	11.5
1999 ^a			177	49	0	237	67

^a Paintball, mark-resight estimates that include all of Hunt Area 18 (Units 18 & 22).

Table 9. Summary of mountain goat surveys in Unit 19, 1981-present.

Year	Hunt		Adults	Kids	Unknown	Total	Ratio
	Area	Inclusive Location					Kid:100 Adult
1982	19	Wind River	5	2	0	7	40.0
1986			1	0	0	1	0.0
1993			7	3	0	10	42.0
1982		Crooked River	7	1	0	8	14.3
1986			11	3	0	14	27.2
1993			4	0	0	4	0.0
1982		Sheep Cr.	0	0	0	0	--
1986			24	9	0	33	37.5
1993			8	0	0	8	0.0
1982		Elk Cr.	2	1	0	3	50.0
1986			9	4	0	13	44.4
1993			2	0	0	2	0.0
1993		Upper Johnson Cr.	3	1	0	4	33.3
1982		TOTAL	14	4	0	18	28.6
1986			45	16	0	61	35.6
1993			24	4	0	28	16.7

Table 10. Summary of mountain goat surveys in Unit 20, 1981-present.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio
							Kid:100 Adult
1982	20	Blowout Cr.	2	0	0	2	0.0
1987			4	0	0	4	0.0
1993			1	0	0	1	0.0
1982		Rhett Cr.	10	4	0	14	40.0
1987			12	1	0	13	8.3
1993			1	0	0	1	0.0
1982		Sabe Cr.	10	3	0	13	30.0
1987			30	8	0	38	26.7
1993			15	2	0	17	13.3
1982		Rattlesnake Cr.	3	1	0	4	33.3
1987			2	0	0	2	0.0
1993			2	0	0	2	0.0
1982		Bargamin Cr.	2	0	0	2	0.0
1987			2	0	0	2	0.0
1993			0	0	0	0	0.0
1982		TOTAL	27	8	0	35	29.6
1987			50	9	0	59	18.0
1993			19	2	0	21	10.5

Table 11. Summary of mountain goat harvest and drawing odds by hunt area in Unit 18, 1990-present.

Area	Year	No. Permits	Harvest		Hunter Success	Days/Hunter	Total First Choice Applicants	Drawing Odds
			M	F				
618	1990	5	3	1	80	9.0	49	19.8
	1991	5	3	1	80	2.3	44	18.8
	1992	5	2	1	60	3.3	34	16.8
	1993	5	3	2	100	4.3	47	19.4
	1994	5	3	1	80	5.8	36	17.2
618 changed to 18 in 1995								
18	1995	5	1	3	75	2.5	57	111.4
	1996	5	3	1	80	3.25	39	17.8
	1997	5	3	2	100	4.4	64	112.8
	1998	5	1	4	100	3.0	71	114.2
	1999	5	3	2	100	1.4	64	1:12.8

**PROGRESS REPORT
SURVEYS AND INVENTORY**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mountain Goat Surveys</u>
PROJECT:	<u>W-170-R-24</u>		<u>and Inventories</u>
SUBPROJECT:	<u>3</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>I</u>		<u>Utilization, and Associated</u>
JOB:	<u>5</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 1999 to June 30, 2000</u>		

MOUNTAIN GOAT - SOUTHWEST REGION, NAMPA

ABSTRACT

No mountain goat surveys were conducted or harvest occurred in the Southwest Region in 1999-2000.

**PROGRESS REPORT
SURVEYS AND INVENTORY**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mountain Goat Surveys</u>
PROJECT:	<u>W-170-R-24</u>		<u>and Inventories</u>
SUBPROJECT:	<u>3, McCall</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>I</u>		<u>Utilization, and Associated</u>
JOB:	<u>5</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 1999 to June 30, 2000</u>		

MOUNTAIN GOAT - SOUTHWEST REGION, MCCALL

ABSTRACT

No mountain goat harvest occurred in the Southwest Region during this reporting period. No mountain goat population surveys were conducted. Past survey results indicate that the Unit 22 mountain goat population has a low recruitment rate.

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

MANAGEMENT DIRECTION

Management will be consistent with the statewide management direction delineated in the 1991-1995 Mountain Goat Management Plan (page 16).

BACKGROUND

Historically, Units 20A, 25, and 26 had controlled mountain goat hunt areas (Figure 1). 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 was 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 was issued the last year hunting was allowed in both areas.

POPULATION SURVEYS

No population surveys of mountain goats were conducted during the reporting period. Past survey results indicate that the Unit 22 mountain goat population has a low recruitment rate (Table 1).

HARVEST CHARACTERISTICS

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

MANAGEMENT IMPLICATIONS

The McCall Subregion accounted for 8 mountain goat controlled hunt areas in 1977. All mountain goat hunting in the region was discontinued in 1980. Mountain goat hunting will remain closed within the Southwest Region until population survey data document that populations have recovered and meet the minimum requirements to establish a hunt as set forth in the 1991-1995 Mountain Goat Management Plan. An exception to this is the Unit 22 mountain goat population, which is contiguous with the Unit 18 population. The Unit 22 population has been increasing as a result of mountain goats pioneering out from the Unit 18 hunt area. Mountain goat Hunt Area 18 was expanded south in 1997 to include the Brush Creek drainage of Unit 22.

Mountain goat transplant sites were identified and prioritized during the 1988-1990 reporting period. Authorization from the appropriate land management agencies was obtained during the 1989-1990 reporting period. These sites were incorporated into the Department's 1991-1995 Mountain Goat Management Plan.

Table 1. Summary of Mountain Goat Observations in Unit 22 of the Southwest Region, 1996 (1995 totals in parenthesis).

Year	Area	Adults	Kids	Total	<u>Ratio</u> Kid:100 Adult
1996					
	Deer Creek	11 (27)	1 (0)	12 (27)	
	Granite Creek	26 (7)	2 (2)	28 (9)	
	Sawpit Creek	<u>7 (4)</u>	<u>2 (0)</u>	<u>9 (4)</u>	
	Total	44 (38)	5 (2)	49 (40)	11 (5)

**PROGRESS REPORT
SURVEYS AND INVENTORY**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mountain Goat Surveys</u>
PROJECT:	<u>W-170-R-24</u>		<u>and Inventories</u>
SUBPROJECT:	<u>4</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>I</u>		<u>Use, and Associated</u>
JOB:	<u>5</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 1999 to June 30, 2000</u>		

MOUNTAIN GOAT - MAGIC VALLEY REGION

ABSTRACT

An aerial survey conducted in Unit 49 during the reporting period, indicated that mountain goat numbers remain low in the unit. One of 2 hunters in Hunt Area 48 was successful in 1999.

**UNITS 43, 48, 49
CONTROLLED HUNT AREA 48**

MANAGEMENT DIRECTION

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

BACKGROUND

Unit 43 – 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 and 1996 indicated the population in Unit 43 had decreased and did not meet minimum standards to allow harvest. Unit 43 has been closed to mountain goat hunting since 1995.

Unit 49 -- 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 the Unit 49 mountain goat population was not large enough to allow sport harvest and the season has been closed since 1987.

Unit 48 -- From 1981-1986, 4 permits were issued in 2 hunt areas (1 area included that portion of Unit 49 west of the Little Wood River). In 1987 Unit 49 was closed to mountain goat hunting and excluded from the 648-2 hunt area. From 1987-1990 Unit 48 was divided into 2 hunts each with 2 permits; east of State Highway 75 (648-2) and west of State Highway 75 upstream from and including the Baker Creek drainage (648-1). Permit levels were reduced in 1991 based on aerial survey results. Since 1991, 2 permits have been authorized annually in 1 hunt area that includes all of the former 648-1 and 648-2 hunt areas (Table 1).

POPULATION SURVEYS

A complete aerial census of Unit 49 was conducted on 26-27 March 2000. Twenty-three mountain goats were observed (100 adults:4 juveniles), which is more mountain goats than were observed on the 1992 survey but not enough to allow hunting harvest (Table 2).

TRANSPLANTS

Potential release sites have been identified in Units 43, 48, and 49. No transplants occurred in the region during the reporting period (Table 3).

HARVEST CHARACTERISTICS

In 1999, 1 of 2 Unit 48 mountain goat hunters was successful. The successful hunter took a 4½-year-old male mountain goat in 25 days of hunting. Drawing odds in the Unit 48 hunt averaged 17% from 1991-1999. A summary of mountain goat harvest data for the Magic Valley Region is shown in Tables 4 and 5.

MANAGEMENT IMPLICATIONS

Results of the 2000 aerial survey in Unit 49 suggest that mountain goat numbers remain at a low level. Only 1 juvenile mountain goat was observed, indicating poor production and/or survival in 1999. Future surveys of this mountain goat population should include habitat in both Units 49 and 50, since this population uses portions of both units. The population has been identified for augmentation releases if and when a source of mountain goats becomes available. Currently the U.S. Forest Service is attempting to improve mountain goat habitat through improved livestock management and limiting motorized access, which should assist in population recovery.

Hunts will remain closed in Units 43 and 49 until aerial survey data indicates population increases in these and adjacent units. In Unit 48 the permit level will remain at 2 until data becomes available to suggest a change.

Table 1. 1999 Structure for Controlled, Either-Sex Mountain Goat Hunts 648 in the Magic Valley Region.

Hunt Area	Season	
	Dates	Length (Days)
48	8/30-11/12	75

Table 2. Summary of Mountain Goat Surveys in Units 43, 48, and 49, 1981-2000.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio Kid:100 Adult
1981	636A-2	Unit 48 ^a	18	3	0	21	17
1981	643-1,2,3	Unit 43	69	20	0	89	29
1981	648-1	Unit 48 ^b	19	2	0	21	11
1981	648-2	Unit 48,49 ^c	24	1	5	30	4
1985	636A-2	Unit 48 ^a	26	8	0	34	31
1985	648-2	Unit 48,49 ^c	13	2	0	15	15
1990	643-1	Unit 43 ^d	43	14	0	57	33
1990	643-2	Unit 43 ^e	24	7	0	31	29
1990	648-1	Unit 48 ^b	26	9	0	35	35
1990	648-2	Unit 48 ^f	17	7	0	24	41
1992	649	Unit 49 ^g	8	2	0	10	25
1994	643	Unit 43 ^{d,e}	21	4	0	25	16
1994	648	Unit 48 ^h	52	13	0	65	25
1996	43	Unit 43 ^{d,e}	25	7	0	32	29
2000	49	Unit 49 ^g	22	1	0	23	4

^a That portion of Unit 48 west of the North Fork of the Big Wood River and north of State Highway 75.

^b That portion of Unit 48 west of State Highway 75 and Baker Creek.

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

^d That portion of Unit 43 within the main South Fork of the Boise River drainage upstream from and including the Bear Creek and Emma Creek drainages.

^e That portion of Unit 43 within the Big Smoky Creek drainage upstream from and including the Bluff Creek drainage.

^f That portion of Unit 48 east of State Highway 75.

^g All of Unit 49.

^h That portion of Unit 48 north and east of State Highway 75 and that portion south and west of State Highway 75 upstream and including the Baker Creek drainage.

Table 3. Summary of Mountain Goat Transplants in the Magic Valley Region.

Date	Capture Site	Release Site	<u>Adult</u>		<u>Kid</u>		Total
			Male	Female	Male	Female	
1999	No activity						

Table 4. Summary of Mountain Goat Harvest and Drawing Odds in Hunt Area 643-1, 643-2, and 643, 1983-1999.

Hunt Area	Year	No. Permits	<u>Harvest</u>		Hunter Success	Days/ Hunter	Total First Choice Applicants	Drawing Odds
			M	F				
643-1	1983	2	0	0	0	7.5	22	1:11
643-2	1983	2	2	0	100	1.0	29	1:14.5
643-1	1984	2	1	0	50	3.5	21	1:10
643-2	1984	2	0	2	100	2.5	25	1:12.5
643-1	1985	2	0	1	50	4.0	41	1:20.5
643-2	1985	2	0	2	100	3.0	31	1:15.5
643-1	1986	2	1	1	100	4.0	14	1:7
643-2	1986	2	0	2 (1) ^b	100 (50)	2.0 (3.0)	10	1:5
643-1	1987	2	1	1	100	6.5 (5.5)	8	1:4
643-2	1987	2	0	2	100	4.0 (3.0)	7	1:3.5
643-1	1988	2	1	0	50	8.0 (3.0)	9	1:4.5
643-2	1988	2	2	0	100	*, (4.0)	7	1:3.5
643-1	1989	2	1	0	50	4.0 (5.0)	9	1:4.5
643-2	1989	2	2 (1)	0	100 (50)	3.0	10	1:5
643-1	1990	2	0	1	50	12.0 (5.0)	5	1:2.5
643-2	1990	2	1	1	100	6.5	9	1:4.5
643 ^a	1991	3	0	1	33	6.7	18	1:6
643 ^a	1992	3	0	1	33	3.7	7	1:2.3
643 ^a	1993	3	1	2	100	5.3	14	1:4.7
643 ^a	1994	3	1	2	100	5.5	11	1:3.7
43 ^a	1995				CLOSED			
43 ^a	1996				CLOSED			
43 ^a	1997				CLOSED			
43 ^a	1998				CLOSED			
43 ^a	1999				CLOSED			

* Data Incomplete or No Data

^a Same geographical area as 643-1 and 643-2

^b Mandatory check data differs from telephone survey information and are shown in parentheses.

Table 5. Summary of Mountain Goat Harvest and Drawing Odds in Hunts 648, 648-1, 648-2 and 48, 1983-1999.

Hunt Area	Year	No. Permits	Total Harvest		Hunter Success	Days/Hunter	First Choice Applicants	Drawing Odds
			M	F				
648-1	1983	2	1	1	100	1.0	41	1:20.5
648-2	1983	2	1 (*)	0 (*)	50 (*)	3.0 (*)	39	1:19.5
648-1	1984	2	1 (0) ^d	1	100 (50)	5.5 (6.0)	26	1:13
648-2	1984	2	2	0	100	3.5 (5.5)	24	1:12
648-1 ^c	1985	2	1	1 (0)	100 (50)	2.0 (3.0)	46	1:23
648-2 ^a	1985	2	0	2	50	1.0	46	1:23
648-1	1986	2	0	2 (1)	100 (50)	3.0	4	1:2
648-2 ^b	1986	2	1 (0)	1	100 (50)	17.5 (10.0)	7	1:3.5
648-1	1987	2	2	0	100	11.0	9	1:4.5
648-2	1987	2	2	0	100	3.0 (1.5)	13	1:6.5
648-1	1988	2	2	0	100	*. (2.0)6	1:3	
648-2	1988	2	2	0	100	*. (2.0)10	1:5	
648-1	1989	2	1	1	100	6.5	13	1:6.5
648-2	1989	2	2 (1)	0	100 (50)	2.0 (1.0)	8	1:4
648-1	1990	2	2	0	100	1.5 (*)	2	1:1
648-2	1990	2	1	1	100	3.5 (3.3)	9	1:4.5
648 ^c	1991	2	1	0	50	8.0	18	1:9
648 ^c	1992	2	1	0	50	2.0	8	1:4
648 ^c	1993	2	2	0	100	6.0	12	1:6
648 ^c	1994	2	2	0	100	3.0	10	1:5
48 ^c	1995	2	0	2	100	3.5	13	1:6.5
48 ^c	1996	2	2	0	100	1.0	8	1:4
48 ^c	1997	2	2	0	100	5.5	16	1:8
48 ^c	1998	2	2	0	100	2.0	13	1:6.5
48 ^c	1999	2	1	0	50	25.0	20	1:10

* Data Incomplete or No Data

^a Hunt 648-2 changed to Hunt 649 in 1986.

^b That portion of Unit 48 east of State Highway 75. The portion of Unit 48 west of the North Fork of the Big Wood River and north of State Highway 75 was formerly included in Hunt 636A-2.

^c Same geographical area as 648-1 and 648-2 combined.

^d Mandatory check data differs from telephone survey information and are shown in parentheses.

**PROGRESS REPORT
SURVEYS AND INVENTORY**

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

MOUNTAIN GOAT - UPPER SNAKE REGION

ABSTRACT

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

Four controlled hunts were offered in the Upper Snake Region in 1999. Twenty-one permits were offered, and 18 mountain goats were harvested (86% success) based on mandatory harvest reports (no telephone survey was conducted on trophy species permit holders again in 1999). Drawing odds ranged from 8.5:1 to 10.5:1.

A population survey was flown in Unit 50 in August 1999. A total of 50 mountain goats with 25 kids:100 adults was counted in Hunt Area 50. In the closed portion of Unit 50 (that portion north of Trail Creek Road and west of Highway 93), a total of 30 mountain goats was tallied with a kid:adult ratio of 15:100.

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

**UNITS 29, 51, 58, 59A
CONTROLLED HUNT AREAS 51, 59A**

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

Description: Hunt Area 59A - All of Unit 59A and that portion of Unit 58 east of State Highway 28 and south of but excluding the Willow Creek drainage.

BACKGROUND

Mountain goats are native to these ranges. Reports of observations of one to a few mountain goats date back to the early 1950s. Numbers remained low, however, until about the mid-1970s. Aerial surveys in 1982 indicated that populations in Hunt Areas 51 and 59A had increased enough to increase permits in Hunt Area 51 and initiate Hunt Area 59A. The populations appear to have remained stable or increased slightly over the last 10 years. Hunt Area 59 was initiated in 1987 after a 1986 survey found 46 mountain goats with a ratio of 44 kids per 100 adults. This hunt was closed after a 1994 population survey accounted for only 25 mountain goats.

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

Two controlled hunts (Table 1), with a total of 9 permits, were held in these units in 1999.

POPULATION SURVEYS

Population surveys were last conducted in Units 59 and 59A in late July 1994 (Table 2). A Bell G47 Soloy helicopter was used to conduct the surveys.

A total of 25 mountain goats was 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 represents a decrease of 46% from the previous survey (1986). Counting conditions were considered good for the 1994 survey. Mountain goats were distributed around subalpine fir clones at about 9,000 feet. No mountain goats were seen along upper Irving Creek or in Montana on Garfield Mountain or the Lima Peaks.

The Unit 59A survey resulted in a total count of 128 mountain goats with 39 kids:100 adults (four sets of twins identified). This total represents an increase of 44% from the next most recent survey (1991) and is the most mountain goats ever counted in this unit. Counting conditions were excellent and mountain goats were distributed throughout the area. Most were located on open, rocky slopes or around cliffs at or above 9,500 feet.

Mountain goats were last surveyed in Units 51/58 in 1992. A total of 61 mountain goats with a kid:adult ratio of 13:100 was observed on this survey.

HARVEST CHARACTERISTICS

A total of 9 permits was issued for these two hunts in 1999, and 7 mountain goats were harvested. Three of four permittees were successful in harvesting a mountain goat in Hunt Area 51 in 1999 while four of the five hunters in Hunt Area 59A harvested a mountain goat (Table 3) based on mandatory harvest reports. The harvest consisted of 5 males and 2 females. No telephone survey

has been conducted on mountain goat permit holders since 1995. Therefore, caution must be exercised when comparing 1996-1999 harvest results with earlier data. Drawing odds were 8.5:1 for Hunt Area 51 and 9.8:1 for Hunt Area 59A in 1999 (Table 3).

CLIMATIC CONDITIONS

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

HABITAT CONDITIONS

Habitat conditions remained relatively static during this reporting period.

TRAPPING AND TRANSPLANTING

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

MANAGEMENT IMPLICATIONS

The 1991-1995 Mountain Goat Management Plan authorizes hunts in game management units having a minimum of 50 adult mountain goats, requires that hunted units be inventoried at least once every five years, and sets permit levels to not exceed 5% of the adults in any population. Based on most recent survey data, season framework modifications were implemented beginning in 1995. The permit level in Unit 51 was reduced from 6 to 4, the Unit 59 hunt was closed, and the hunt in Unit 59A had one additional permit added (5).

UNIT 50 CONTROLLED HUNT AREA 50

Description: Hunt Area 50 - That portion of Unit 50 south and east of the Trail Creek Road and south and west of U.S. Highway 93.

BACKGROUND

Hunt Areas 50-1 and 50-2 were closed in 1982 because of a low kid:adult ratio. Hunt Area 50, with five permits, was reopened 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 45 mountain goats with 22 kids:100 adults were counted during a helicopter survey during the winter of 1981-1982. Season structure for Hunt Area 50 is shown in Table 4.

POPULATION CHARACTERISTICS

A helicopter survey was conducted in Unit 50 in late August 1999 (Table 5). The total number of mountain goats counted in the Hunt Area 50 portion (50) was nearly identical to the total accounted for on the next most recent survey (49 in 1992), but was only 54% of the total counted on the 1985 survey (92). However, the kid:adult ratio improved to 25:100.

HARVEST CHARACTERISTICS

Two permits were issued in Hunt Area 50 again in 1999, resulting in the harvest of 2 male mountain goats (Table 6). Drawing odds (Table 6) were 8.5:1 in 1999.

CLIMATIC CONDITIONS

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

HABITAT CONDITIONS

Mountain goats in Hunt Area 50 occupy the higher elevation peaks and ridges of the Pioneer Range. Habitat in this area is discontinuous and appears less productive than other occupied mountain goat habitat in the Upper Snake Region. The two habitat components that are most limited are alpine meadow summer range and mountain mahogany stands for winter range. Tracks observed on aerial surveys indicate mountain goats, either solitary or in small groups, shift several miles to find suitable habitats following winter storms. Water may also be limiting in some parts of the summer range.

TRAPPING AND TRANSPLANTING

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

MANAGEMENT IMPLICATIONS

Permits in Hunt Area 50 were reduced from 5 to 2 in 1993 based upon results of the 1992 population survey. The 50 mountain goats accounted for on the two most recent (February 1992 and August 1999) population surveys place this hunt at the minimum population level for a unit to sustain a hunt, as per the 1991-1995 Mountain Goat Management Plan.

UNIT 67 CONTROLLED HUNT AREAS 67-1, 67-2

Description: Hunt Area 67-1 - That portion of Unit 67 south of Palisades Creek.

Description: Hunt Area 67-2 - That portion of Unit 67 north of Palisades Creek and south of State Highway 31 - CLOSED.

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 trapping mountain goats from the Mt. Baldy and Mt. Baird populations for statewide transplants, seasons were restructured in 1991. Total permits were reduced from 24 to 13. Hunt Areas 67-2, 67-4, and 67-6 were combined and renumbered to 67-1. Additionally, Hunt Area 67-1 became 67-2; 67-3 remained 67-3; and 67-5 became 67-4. Season structure for mountain goat Hunt Areas 67-1 and 67-2 for 1997 are shown in Table 7. Permits were increased from 7 to 20 in Hunt Area 67-1 based upon the results of the 1996 population survey. The permit level for Hunt Area 67-2 remained at 4 for 1998. The continuation of a downward population trend in Hunt Area 67-2 resulted in the closure of this hunt after the 1998 season.

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).

Surveys have been conducted in Unit 67 on a fairly frequent basis. An aerial population survey was conducted on these two mountain goat populations with a Bell G47 Soloy helicopter in mid-August 1998.

A total of 163 mountain goats with a kid:adult ratio of 38:100 was counted in the Mt. Baird portion of Unit 67 (Hunt Area 67-1; Table 8). The next most recent count in this area was a helicopter count conducted in 1996 that accounted for 217 mountain goats. Although this count represents a decrease of 25%, it is still the second highest count ever attained for this population.

The 1998 population survey of the Mt. Baldy portion of Unit 67 resulted in a total count of 33 with a kid:adult ratio of 27:100 (Table 9). This total of 33 mountain goats represents the lowest total for this population and a continuation of a significant downward trend over the past 10 years. The total of 33 mountain goats is just 26% of the historical high count of 126 for this area that was observed in 1986.

HARVEST CHARACTERISTICS

In 1999, 9 mountain goats (4 males and 5 females) were harvested on the 10 permits (90% success rate) on the 67-1 hunt (Table 10). Drawing odds were 10.5:1 in Hunt Area 67-1 in 1999 (Table 10).

CLIMATIC CONDITIONS

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

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 intrude. 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 agreed to study the conflict.

TRAPPING AND TRANSPLANTING

Efforts to translocate mountain goats from the Mt. Baldy population have been ongoing since 1987. Mountain goats were trapped in clover traps using salt as bait from 1989-1991. A total of 15 mountain goats was removed from the Mt. Baldy population during these three trapping efforts (Table 11).

In July 1992 the New Zealand net-gun crew captured 11 mountain goats on Mt. Baldy. These animals were successfully translocated to the Salmon Region (Panther Creek in Unit 28). The 11 mountain goats translocated in 1992 consisted of 9 females (3 yearlings, 3 two-year-olds, 2 three-year-olds, and 1 four-year-old), and 2 males (1 yearling and 1 two-year-old).

In August 1994 a total of 11 mountain goats was net gunned from the Mt. Baird portion of Unit 67 to be transplanted to Square Top in Unit 21 (Salmon Region) by the New Zealand net gun crew. One 3.5-year-old male was killed during the capture operation. The 10 mountain goats transplanted to Unit 21 consisted of 6 females (4 yearlings and 2 two-year-olds) and 4 males (1 yearling, 2 two-year-olds, and 1 three-year-old). This operation represents the first attempt to remove mountain goats from the Mt. Baird portion of Unit 67.

The New Zealand net gun crew again captured mountain goats in the Mt. Baird portion of Unit 67 in August 1997. A total of 10 adult mountain goats (6 females, 4 males) was transplanted to the Corn Lakes area in Unit 21 (Salmon Region).

A complete summary of mountain goat transplants in Unit 67 is presented in Table 11.

MANAGEMENT IMPLICATIONS

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

The two most recent population surveys conducted in Hunt Area 67-1 in 1996 and 1998 represent the two highest counts on record for this population. Harvest strategies have been adjusted in Hunt Area 67-1 to reflect results of recent population surveys.

The continued downward population trend in Hunt Area 67-2 is cause for concern and will be monitored closely. This population decline resulted in the 67-2 hunt being closed beginning with the 1999 season.

LITERATURE CITED

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

Table 1. 1999 Season structure for controlled, either-sex mountain goat Hunt Areas 51 and 59A in the Upper Snake Region.

Hunt Area	Season	
	Dates	Length (Days)
51	8/30–11/12	75
59A	8/30–11/12	75

Table 2. Summary of Mountain Goat Surveys in Units 51, 59, and 59A, 1982-Present.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio
							Kid:100 Adult
1982 ^{a,c}	51	Lemhi Range South of the Big Timber Creek drainage	75	22	0	97	29
1986 ^a			68	15	17	101	22
1987 ^b			100	30	0	130	30
1992 ^a			54	7	0	61	13
1986 ^a	59	Red Conglomerates	32	14	0	46	44
1994 ^a			14	11	0	25	79
1982 ^a	59A	Italian Peaks	46	13	0	59	28
1986 ^a			10	3	0	13	30
1991 ^b			61	24	4	89	39
1994 ^a			92	36	0	128	39

^a Helicopter count.

^b Ground count.

^c Census results combined for Hunt Areas 51-1 and 51-2.

Table 3. Summary of Mountain Goat Harvest and drawing odds by Hunt Area (Hunt Areas 51, 59, and 59A), 1990-1999.

Hunt Area	Year	No. Permits	Harvest		Hunter Success	Days/Hunter	Total 1st Choice Applicants	Drawing Odds
			M	F				
51	1990	6	4	1	83	3.3	27	4.5:1
	1991	6	2	4	100	4.5	32	5.3:1
	1992	6	3	2	83	4.5	50	8.3:1
	1993	6	5	1	100	4.4	32	5.3:1
	1994	6	5	1	100	4.2	44	7.3:1
	1995	4	1	2	75	11.3	36	9.0:1
	1996 ^a	4	3	0	75	ND	25	6.3:1
	1997 ^a	4	0	2	50	ND	20	5.0:1
	1998 ^a	4	3	1	100	ND	40	10.0:1
	1999 ^a	4	2	1	75	ND	34	8.5:1
59	1990	2	2	0	100	1.5	10	5.0:1
	1991	2	1	1	100	2.0	18	9.0:1
	1992	2	1	1	100	5.0	14	7.0:1
	1993	2	2	0	100	3.5	14	7.0:1
	1994	2	0	2	100	4.0	11	5.5:1
	1995	CLOSED			--	--	--	--
	1996	CLOSED			--	--	--	--
	1997	CLOSED			--	--	--	--
	1998	CLOSED			--	--	--	--
	1999	CLOSED			--	--	--	--
59A	1990	3	3	0	100	3.7	34	11.3:1
	1991	3	2	1	100	2.7	17	5.7:1
	1992	3	2	1	100	3.7	22	7.3:1
	1993	4	3	0	75	4.3	25	6.3:1
	1994	4	1	2	75	3.8	34	8.5:1
	1995	5	1	4	100	2.8	35	7.0:1
	1996 ^a	5	2	2	80	ND	44	8.8:1
	1997 ^a	5	4	1	100	ND	43	8.6:1
	1998 ^a	5	4	0	80	ND	36	7.2:1
	1999 ^a	5	3	1	80	ND	49	9.8:1

^a Harvest estimates derived from telephone survey through 1995 and from mandatory harvest reports from 1996-1999.

Table 4. 1999 Season structure for controlled, either-sex, mountain goat Hunt Area 50 in the Upper Snake Region.

Hunt Area	Season	
	Dates	Length (Days)
50	8/30–11/12	75

Table 5. Summary of Mountain Goat Surveys in Unit 50, 1982-Present.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio Kid:100 Adult
1982 ^a	Closed	Area ^b	13	3	0	16	23
1985 ^a			9	2	0	11	22
1992 ^a			13	0	0	13	0
1999 ^a			26	4	0	30	15
1982 ^a	50	Area ^c	37	8	0	45	22
1985 ^a			66	20	6	92	30
1992 ^a			45	4	0	49	9
1999 ^a			40	10	0	50	25

^a Helicopter.

^b That portion of Unit 50 north and west of the Trail Creek Road and south and west of U.S. Highway 93.

^c That portion of Unit 50 south and east of the Trail Creek road and south and west of U.S. Highway 93.

Table 6. Summary of Mountain Goat Harvest and drawing odds by Hunt Area, (Hunt Area 50) 1990-1999.

Hunt Area	Year	No. Permits	Harvest		Hunter Success	Days/ Hunter	Total 1st Choice Applicants	Drawing Odds
			M	F				
50	1990	5	3	1	80	5.2	22	4.4:1
	1991	5	3	2	100	9.0	30	6.0:1
	1992	5	2	3	100	3.0	26	5.2:1
	1993	2	1	1	100	7.0	15	7.5:1
	1994	2	1	1	100	8.5	15	7.5:1
	1995	2	1	0	50	5.0	14	7.0:1
	1996 ^a	2	2	0	100	ND	11	5.5:1
	1997 ^a	2	1	0	50	ND	11	5.5:1
	1998 ^a	2	1	1	100	ND	17	8.5:1
	1999 ^a	2	2	0	100	ND	17	8.5:1

^a Harvest estimates derived from telephone survey through 1995 and from mandatory harvest reports from 1996-1999.

Table 7. 1999 Season structure for controlled, either-sex, mountain goat Hunt Area 67-1 in the Upper Snake Region.

Hunt Area	Season	
	Dates	Length (Days)
67-1	8/30–11/12	75

Table 8. Summary of Mountain Goat Surveys in Unit 67 South of Palisades Creek, 1982-Present (Mt. Baird area).

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	<u>Ratio</u> Kid:100 Adult
1982 ^a	67-1	South of Palisades	33	13	0	46	39
1985 ^a		Creek	35	16	0	51	46
1986 ^b			0	0	104	104	--
1986 ^a			37	15	0	52	41
1988 ^b			71	21	0	92	30
1990 ^b			45	18	0	63	40
1993 ^b			104	33	16	153	34
1994 ^a			73	42	0	115	58
1996 ^a			151	66	0	217	44
1998 ^a			118	45	0	163	38

^a Helicopter survey.

^b Ground count.

Table 9. Summary of Mountain Goat Surveys in Unit 67 North of Palisades Creek, 1982-Present (Mt. Baldy area).

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	<u>Ratio</u> Kid:100 Adult
1982 ^a	67-2	North of Palisades	45	12	0	57	27
1985 ^a		Creek	31	8	0	39	26
1986 ^b			0	0	126	126	--
1986 ^a			38	19	49	106	50
1987 ^b			72	28	0	100	39
1988 ^b			91	31	0	122	34
1989 ^b			35	12	0	47	34
1990 ^b			73	22	0	95	30
1994 ^a			41	20	0	61	49
1996 ^a			47	17	0	64	36
1998 ^a			26	7	0	33	27

^a Helicopter survey.

^b Ground count.

Table 10. Summary of Mountain Goat Harvest and drawing odds by Hunt Area (Hunt Areas 67-1 and 67-2), 1991-1999.

Hunt Area	Year	No. Permits	Harvest ^a		Hunter Success	Days/Hunter	Total 1st Choice Applicants	Drawing Odds
			M	F				
Mt. Baird								
67-1	1991	7	5	2	100	3.3	129	18.4:1
	1992	7	4	3	100	3.8	72	10.3:1
	1993	7	2	4	85	3.0	67	9.6:1
	1994	7	6	1	100	2.7	77	11.0:1
	1995	7	2	0	28	7.0	97	13.9:1
	1996	7	4	1	71	ND	77	11.0:1
	1997	20	8	8	80	ND	166	8.3:1
	1998	20	4	9	65	ND	129	6.5:1
	1999	10	4	5	90	ND	105	10.5:1
Mt. Baldy ^b								
67-2	1991	2	2	0	100	1.0	17	8.5:1
	1992	2	1	1	100	3.0	9	4.5:1
	1993	2	2	0	100	1.0	17	8.5:1
	1994	2	1	1	100	6.5	11	5.5:1
	1995	4	1	0	25	5.7	32	8.0:1
	1996	4	3	1	100	ND	41	10.3:1
	1997	4	3	1	100	ND	26	6.5:1
	1998	4	3	0	75	ND	21	5.3:1
	1999	CLOSED				--	--	--
67-3	1991	2	0	1	50	1.0	15	7.5:1
	1992	2	2	0	100	3.5	12	6.0:1
	1993	2	1	0	50	7.5	24	12.0:1
	1994	2	0	2	100	2.0	9	4.5:1
67-4	1991	2	2	0	100	4.0	15	7.5:1
	1992	2	1	0	50	4.0	21	10.5:1
	1993	2	2	0	100	2.0	9	4.5:1
	1994	2	1	1	100	2.0	22	11.0:1

^a Harvest estimates derived from telephone survey through 1995 and from mandatory harvest reports from 1996-1999.

^b Hunt Areas 67-2, 67-3, and 67-4 sequential (1991-1994).

Table 11. Summary of Mountain Goat Transplants in Unit 67 in the Upper Snake Region.

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

**PROGRESS REPORT
SURVEYS AND INVENTORY**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mountain Goat Surveys</u>
PROJECT:	<u>W-170-R-24</u>		<u>and Inventories</u>
SUBPROJECT:	<u>7</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>I</u>		<u>Utilization, and Associated</u>
JOB:	<u>5</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 1999 to June 30, 2000</u>		

MOUNTAIN GOAT - SALMON REGION

ABSTRACT

The most recent aerial surveys for mountain goats were conducted in Unit 27 during April 1999. Some mountain goats were observed incidental to elk surveys in Unit 28.

Permit levels increased from 13 in 1988 to 32 in 1993, then declined again to 21 permits in 1995 and 1996 and 22 permits in 1997 and 1998 and 24 permits in 1999 with the addition of Hunt 27-4. Overall hunter success averages 89% and 65% of the harvest is male. The 1999 Salmon Region hunter success was 88%.

The Salmon Region has approval on ten mountain goat release sites, five of which are in designated wilderness. Sixty-one mountain goats have been released since 1989 and the region could accommodate the release of 120 more.

**UNITS 21, 21A, 27, 28, 29, 30, 30A, 36, 36A 36B, 37, 37A
CONTROLLED HUNT AREAS 27-2 27-3, 27-4 30, 36A-1, 36A-2, 36A-3, 36A-4, 36B**

MANAGEMENT DIRECTION

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

BACKGROUND

Most herds winter at low elevations on south-facing cliffs, where mountain mahogany is a dominant forage species. These mountain goats move to higher elevations during summer where alpine, subalpine, or north slope habitats are preferred. Mountain goats in Units 36 and 36A depend less on mountain mahogany winter ranges. Most do migrate to south-facing cliffs, but some winter on high elevation ridgelines.

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

Suitable mountain goat habitats are often widely separated. Thus, movement of mountain goats into low-density areas is slow and unsure. Transplants may be able to accelerate the process of repopulating vacant habitats and stimulate stagnant herds to increase.

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

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

POPULATION SURVEYS

No mountain goat populations were surveyed during the 1999-2000 winter. During April 1999 mountain goats in Unit 27 were surveyed by helicopter. A total of 223 mountain goats were observed, with an observed ratio of 11 kids per 100 adults. This year's survey covered some parts of the headwaters of the Middle Fork Salmon River that had not been surveyed in many years. Individual mountain goat herds in Unit 27 were generally stable with low to moderate kid production. The counts in hunt areas 27-1 and 27-2 were lower than previous surveys, apparently due to poor survey conditions.

In addition to the Unit 27 survey, some mountain goats were counted incidental to elk surveys in Unit 28.

HARVEST CHARACTERISTICS

The 1991-1995 Mountain Goat Management Plan set the following criteria for establishing permit levels:

1. Set permit levels so annual harvest does not exceed 5% of the nonkid segment of the herd, except that highly productive herds can be harvested up to 15% if at least 15% of the adult females are producing twins.
2. Authorize hunts only for herds with a minimum of 50 mountain goats.

From 1975-1982, 21 mountain goat hunts were completely closed in response to declining populations. Permits in the remaining hunts were reduced to a low of 10 total permits in 1985

(Table 7). From 1986 to 1993 total permits increased to 32 as several hunts were reinstated or had permit increases (Table 7). In 1995 permits were reduced in hunts 36A-3 and 36A-4 and hunts 27-1 and 27-2 were closed. In 1997 hunt 27-2 was reinstated with two permits. Hunt 27-4 was added in 1999 with two permits. With a 75-day season (Table 8), hunter success region-wide the last five years has averaged 89%. Males comprised 65% of the harvest. In 1998 Salmon Region mountain goat hunters achieved 100% success.

Prior to 1986 the chance of drawing a Salmon Region mountain goat permit was very low, averaging 5%. Since 1986 hunters who apply for a mountain goat permit have been restricted to only that controlled permit application. From 1986 to 1994 drawing success was much improved, averaging 20%. When mountain goat permit numbers were reduced in 1995, applicant numbers did not drop proportionally. Since 1995 drawing odds have averaged 14%. Drawing odds for individual hunts are variable from year to year. Mountain goat season dates have remained unchanged (Table 9).

CLIMATIC CONDITIONS

Summer 1999 was dry. The vegetation cured out early in the growing season. The total snowpack eventually reached about 80% of average. Winter temperatures were generally mild, seldom dropping below zero Fahrenheit. Cool temperatures and wet weather persisted through much of the late spring. Although the cumulative impact of the winter was moderate, animals entered the winter in average body condition, which should have produced average overwinter survival.

HABITAT CONDITIONS

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

During the past 15 years, elk numbers have increased dramatically. Portions of mountain goat winter ranges in Units 21, 21A, 27, 29, and 37A now receive substantial use by elk during winter. The capacity of these ranges to support mountain goats may be reduced because of this elk competition.

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.

TRAPPING AND TRANSPLANTING

Ten potential release sites have been approved in the Salmon Region (Table 10) with more sites pending. Since 1989, 61 mountain goats have been released within the region (Table 11).

MANAGEMENT IMPLICATIONS

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

Transplanting of mountain goats into historical range will continue to be a priority. Release sites along the Middle Fork of the Salmon River have high aesthetic values because of the 8,000+ river tourists during the summer. Potential 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. The visible mountain goat herds in these units, therefore, fulfill a valuable aesthetic role in addition to providing harvest. A few recreational activities, such as snowmobiling and heliskiing, have potential to disturb wintering mountain goats in some areas. The regulation of these activities needs to be coordinated with the Sawtooth National Recreation Area.

Table 1. Summary of Mountain Goat Surveys in Unit 21.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	<u>Ratio</u> Kid:100 Adult
1996		Lost Trail-Hughes Cr	8	2	-	10	25
1996		Hughes Cr-Horse Cr	26	4	-	30	15

Table 2. Summary of Mountain Goat Surveys in Units 21A and 30.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	<u>Ratio</u> Kid:100 Adult
1988	30	Sheep Cr-Goat Mtn	116	22	-	138	19
1996	30	Sheep Cr-Goat Mtn	81	4	-	85	5
1997	30	Sheep Cr-Goat Mtn	73	16	-	89	22

Table 3. Summary of Mountain Goat Surveys in Unit 27.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio Kid:100 Adult
1999*		Rapid R.-Headwaters	21	3	-	24	14
1988	27-1	E. Fk Mayfield Cr	17	4	-	21	24
1994	27-1	E. Fk Mayfield Cr	10	1	-	11	10
1995	27-1	E. Fk Mayfield Cr	16	4	-	20	25
1997	27-1	E. Fk Mayfield Cr	17	2	-	19	12
1999*	27-1	E. Fk Mayfield Cr	7	1	-	8	14
1988	27-2	Trail Cr-China Cr	54	11	-	65	20
1994	27-2	Trail Cr-China Cr	36	5	-	41	14
1995	27-2	Trail Cr-China Cr	50	6	-	56	12
1997	27-2	Trail Cr-China Cr	92	10	-	102	11
1999*	27-2	Trail Cr-China Cr	37	4	-	41	11
1993*	27-3	Meyers C-Falconberry	37	7	-	44	19
1999*	27-3	Meyers C-Falconberry	37	4	-	41	11
1993*	27-3	Yellowjacket-Waterfall	49	8	-	57	16
1999*	27-3	Yellowjacket-Waterfall	57	6	-	63	11
1993*		Waterfall-Goat Cr	15	1	-	16	7
1999*		Waterfall-Goat Cr	14	1	-	15	7
1993*		Big Cr-Soldier Cr	-	-	-	0	-
1999*		Big Cr-Soldier Cr	5	1	-	6	20
1999*		Marble Cr-Indian Cr	18	2	-	20	11

* Spring Green-Up Count

Table 4. Summary of Mountain Goat Surveys in Unit 28.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio Kid:100 Adult
1996		Cobalt-Garden Cr	10	0	-	10	0
1999*		Upper Camas Cr	5	0	-	5	0
1996		Williams Creek	2	2	-	4	100
1996		Iron Cr-Moyer Cr	11	5	-	16	45
1999 ⁺		Iron Cr-Moyer Cr	21	2	-	23	10

* Spring green-up count.

⁺ Incidental to elk survey.

Table 5. Summary of Mountain Goat Surveys in Units 36, 36A, and 36B.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio Kid:100 Adult
1988	36-1	Elk Cr-Redfish Lake	27	7	-	34	26
1994	36-1	Elk Cr-Redfish Lake	22	0	-	22	0
1988	36-2	Redfish L-Alturas Cr	39	7	-	46	18
1994	36-2	Redfish L-Alturas Cr	28	7	-	35	25
1988		Beaver Cr-Galena	32	7	-	39	22
1994		Beaver Cr-Galena	27	2	-	29	7
1988	36A-1	E Pass Cr-W Pass Cr	37	13	-	50	35
1994	36A-1	E Pass Cr-W Pass Cr	38	10	-	48	26
1988	36A-2	Above W Pass Cr	33	9	-	42	27
1994	36A-2	Above W Pass Cr	36	7	-	43	19
1988	36A-3	Warm Spgs-Wickiup Cr	61	18	-	79	30
1994	36A-3	Warm Spgs-Wickiup Cr	48	8	-	56	17
1988	36A-4	Germania Cr-4 th July	86	21	-	107	24
1994	36A-4	Germania Cr-4 th July	65	6	-	71	9
1985	36B	Mill Cr-Ramey Cr	52	23	-	75	44
1986	36B	Mill Cr-Ramey Cr	37	16	-	53	43
1988	36B	Mill Cr-Ramey Cr	73	20	-	93	27
1994	36B	Mill Cr-Ramey Cr	92	23	2	117	25

Table 6. Summary of Mountain Goat Surveys in Units 29 and 37A.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio Kid:100 Adult
1988		Above Patterson Cr	9	1	-	10	11
1988		Mahogany-Patterson	21	3	-	24	11
1988		Morse Cr-Falls Cr	12	2	-	14	17
1988		McKim Cr-Tater Cr	10	1	-	11	10
1988		Unit 37A Total	52	7	-	59	14

Table 7. Mountain goat harvest in the Salmon Region.

Year	Number Permits	1st Choice Applicants	% Draw Success	Harvest		Total	% Success
				Male	Female		
1979	93	1,833	5	18	10	28	30
1980	40	1,524	3	11	4	15	38
1981	23	-	-	10	6	16	70
1982	20	456	4	6	6	12	60
1983	20	350	6	7	7	14	70
1984	20	270	7	12	5	17	85
1985	10	178	6	6	0	6	60
1986	13	65	20	8	2	10	77
1987	13	67	19	7	5	12	92
1988	13	80	16	5	2	7	54
1989	29	95	31	17	6	23	79
1990	29	130	22	13	7	20	69
1991	29	174	17	18	8	26	90
1992	29	149	19	18	7	25	86
1993	32	165	19	18	7	25	78
1994	32	172	19	20	6	26	81
1995	21	158	13	12	7	19	90
1996	21	143	15	15	4	19	90
1997	22	144	15	10	9	19	86
1998	22	159	14	11	11	22	100
1999	24	140	17	16	5	21	88

Table 8. Summary of Mountain Goat Harvest and Drawing Odds by Hunt Area.

Area	Year	No. Permits	Harvest		Hunter Success	Days/Hunter	First Choice Applicants	Draw Odds	
			M	F					
27-1	1989	3	2	0	67	2.0	9	1: 3.0	
	1990	3	2	0	67	2.7	9	1: 3.0	
	1991	3	1	2	100	3.3	14	1: 4.7	
	1992	3	2	1	100	2.7	13	1: 4.3	
	1993	3	1	2	100	3.3	15	1: 5.0	
	1994	3	2	1	100	3.5	8	1: 2.7	
	1995-1999 Closed								
27-2	1989	3	3	0	100	3.3	10	1: 3.3	
	1990	3	1	0	33	3.0	10	1: 3.3	
	1991	3	2	0	67	8.0	18	1: 6.0	
	1992	3	3	0	100	5.5	9	1: 3.0	
	1993	3	3	0	100	6.0	23	1: 7.7	
	1994	3	2	1	100	9.0	15	1: 5.0	
	1995-1996 Closed								
	1997	2	2	0	100	4.0	7	1: 3.5	
	1998	2	1	1	100	7.0	23	1:11.5	
	1999	2	1	1	100	1.5	10	1: 5.0	
27-3	1993	2	0	2	100	8.0	11	1: 5.5	
	1994	2	2	0	100	6.0	8	1: 4.0	
	1995	2	2	0	100	3.0	12	1: 6.0	
	1996	2	2	0	100	1.0	22	1:11.0	
	1997	2	1	0	50	4.0	10	1: 5.0	
	1998	2	1	1	100	3.0	12	1: 6.0	
	1999	2	1	0	50	4.0	14	1: 7.0	
27-4	1999	2	2	0	100	4.8	13	1: 6.5	
30	1989	3	2	1	100	5.0	19	1: 6.3	
	1990	3	2	1	100	3.3	9	1: 3.0	
	1991	3	3	0	100	8.0	27	1: 9.0	
	1992	3	3	0	100	4.0	11	1: 3.7	
	1993	3	3	0	100	6.0	21	1: 7.0	
	1994	3	2	1	100	3.0	17	1: 5.7	
	1995	3	1	2	100	11.0	20	1: 6.7	
	1996	3	1	2	100	-	14	1: 4.7	
	1997	3	1	2	100	6.3	32	1:10.7	
	1998	3	2	1	100	10.0	23	1: 7.7	
	1999	3	1	2	100	5.7	10	1: 3.3	
36-1	1982-1999 Closed								

Table 8. Summary of Mountain Goat Harvest and Drawing Odds by Hunt Area (continued).

Area	Year	No. Permits	Harvest		Hunter Success	Days/Hunter	First Choice Applicants	Draw Odds
			M	F				
36-2	1989-1999 Closed							
36A-1	1989	3	2	0	67	4.0	5	1: 1.7
	1990	3	1	2	100	5.7	24	1: 8.0
	1991	3	2	1	100	2.3	12	1: 4.0
	1992	3	2	1	100	3.7	34	1:11.3
	1993	3	2	0	67	3.0	8	1: 2.7
	1994	3	3	0	100	4.7	29	1: 9.7
	1995	3	0	2	67	4.7	31	1:10.3
	1996	3	2	1	100	-	16	1: 5.3
	1997	3	2	0	67	-	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
36A-2	1989	2	2	0	100	3.5	3	1: 1.5
	1990	2	1	1	100	4.5	18	1: 9.0
	1991	2	0	2	100	8.0	10	1: 5.0
	1992	2	2	0	100	4.0	11	1: 5.5
	1993	2	1	0	50	4.0	7	1: 3.5
	1994	2	0	0	0	4.0	8	1: 4.0
	1995	2	2	0	100	2.0	9	1: 4.5
	1996	2	2	0	100	4.5	21	1:10.5
	1997	2	1	1	100	4.5	7	1: 3.5
	1998	2	0	2	100	1.5	17	1: 8.5
	1999	2	2	0	100	4.5	8	1: 4.0
36A-3	1989	4	1	2	75	3.0	12	1: 3.0
	1990	4	1	2	75	3.7	18	1: 4.5
	1991	4	2	1	75	2.3	22	1: 5.5
	1992	4	3	1	100	4.8	19	1: 4.8
	1993	4	3	1	100	6.0	21	1: 5.3
	1994	4	2	1	75	6.3	23	1: 5.8
	1995	2	0	1	50	5.0	13	1: 6.5
	1996	2	2	0	100	14.5	11	1: 5.5
	1997	2	1	1	100	2.5	12	1: 6.0
	1998	2	2	0	100	3.0	12	1: 6.0
	1999	2	2	0	100	3.0	11	1: 5.5
36A-4	1989*	8	4	3	88	6.0	27	1: 3.4
	1990*	8	2	1	38	10.6	33	1: 4.1
	1991*	8	5	2	88	6.9	34	1: 4.2
	1992*	8	1	3	50	11.0	37	1: 4.6

Table 8. Summary of Mountain Goat Harvest and Drawing Odds by Hunt Area (continued).

Area	Year	No. Permits	Harvest		Hunter Success	Days/ Hunter	First Choice Applicants	Draw Odds
			M	F				
	1993*	8	2	1	38	12.8	33	1: 4.1
	1994*	7	3	2	71	4.5	36	1: 4.5
	1995*	5	3	2	100	4.7	47	1: 9.4
	1996*	5	2	1	60	-27	1: 5.4	
	1997	4	0	3	75	3.0	31	1: 7.8
	1998	4	2	2	100	5.2	33	1: 8.2
	1999	4	3	1	100	5.3	31	1: 7.8
	(*Archery Only)							
36B	1989	3	1	0	33	5.7	10	1: 3.3
	1990	3	3	0	100	2.3	9	1: 3.0
	1991	3	3	0	100	4.0	37	1:12.3
	1992	3	2	1	100	1.3	15	1: 5.0
	1993	4	3	1	100	2.8	26	1: 6.5
	1994	5	4	0	80	2.0	28	1: 7.0
	1995	4	4	0	100	1.3	26	1: 6.5
	1996	4	4	0	100	5.2	32	1: 8.0
	1997	4	2	2	100	3.0	30	1: 7.5
	1998	4	2	2	100	3.5	23	1: 5.8
	1999	4	2	1	75	6.0	35	1: 8.8

Table 9. 1998 season structure for controlled, either-sex mountain goat hunts in the Salmon Region.

Hunt Nos.	Season	
	Dates	Length (Days)
27-2	8/30–11/12	75
27-3	8/30–11/12	75
27-4	8/30- 11/12	75
30	8/30–11/12	75
36A–1	8/30–11/12	75
36A–2	8/30–11/12	75
36A–3	8/30–11/12	75
36A–4	8/30–11/12	75
36B	8/30–11/12	75

Table 10. Approved release sites for mountain goats in the Salmon Region.

Unit	No. Goats	Location	Method	Goats Released
21 ^a	30	Horse Creek	Helicopter	20
21	10	Beartrap Springs	Vehicle	--
27 ^a	10-20	Goat Creek	Helicopter	--
27 ^a	10	Tumble/Parrot Creek	Helicopter	--
27 ^a	20-30	Ship Island Creek	Helicopter	8
27 ^a	10	Jack/Wilson Creek	Helicopter	7
28	10-20	Panther Creek	Vehicle	23
28	10	Williams Creek	Vehicle	2
29	10-20	Warm Springs Creek	Helicopter	--
29	10-20	Haynes Creek	Vehicle	--

^a Designated wilderness, helicopter use has been authorized by USFS.

Table 11. Summary of Mountain Goat Transplants in the Salmon Region.

Date	Capture Site	Release Site	Adults		Kids		Total
			M	F	M	F	
1982	WA-Olympic Park	37A-Patterson Cr	8	12	-	-	20
1989	9-Snow Peak	27 -Jack Cr	-	1	-	-	1
	10-Black Mtn	27 -Jack Cr	2	4	-	-	6
1989	67-Swan Valley	28 -Williams Cr	1	1	-	-	2
1990	67-Swan Valley	28 -Pine Cr	1	-	-	-	1
1990	67-Swan Valley	28 -Panther Cr	1	3	-	2	6
1991	10-Black Mtn	27 -Ship Island Cr	4	4	-	-	8
1991	67-Swan Valley	28 -Panther Cr	1	4	-	1	6
1992	67-Swan Valley	28 -Panther Cr	2	9	-	-	11
1994	67-Mt Baird	21 -Square Top Mtn	4	6	-	-	10
1997	67-Big Elk Creek	21 -Corn Lake	4	6	-	-	10

Submitted by:

Jim Hayden
Regional Wildlife Manager

Jay Crenshaw
Regional Wildlife Manager

Lou Nelson
Regional Wildlife Manager

Jeff Rohlman
Regional Wildlife Manager

Randy Smith
Regional Wildlife Manager

Brad Compton
Regional Wildlife Manager

Mike Scott
Regional Wildlife Manager

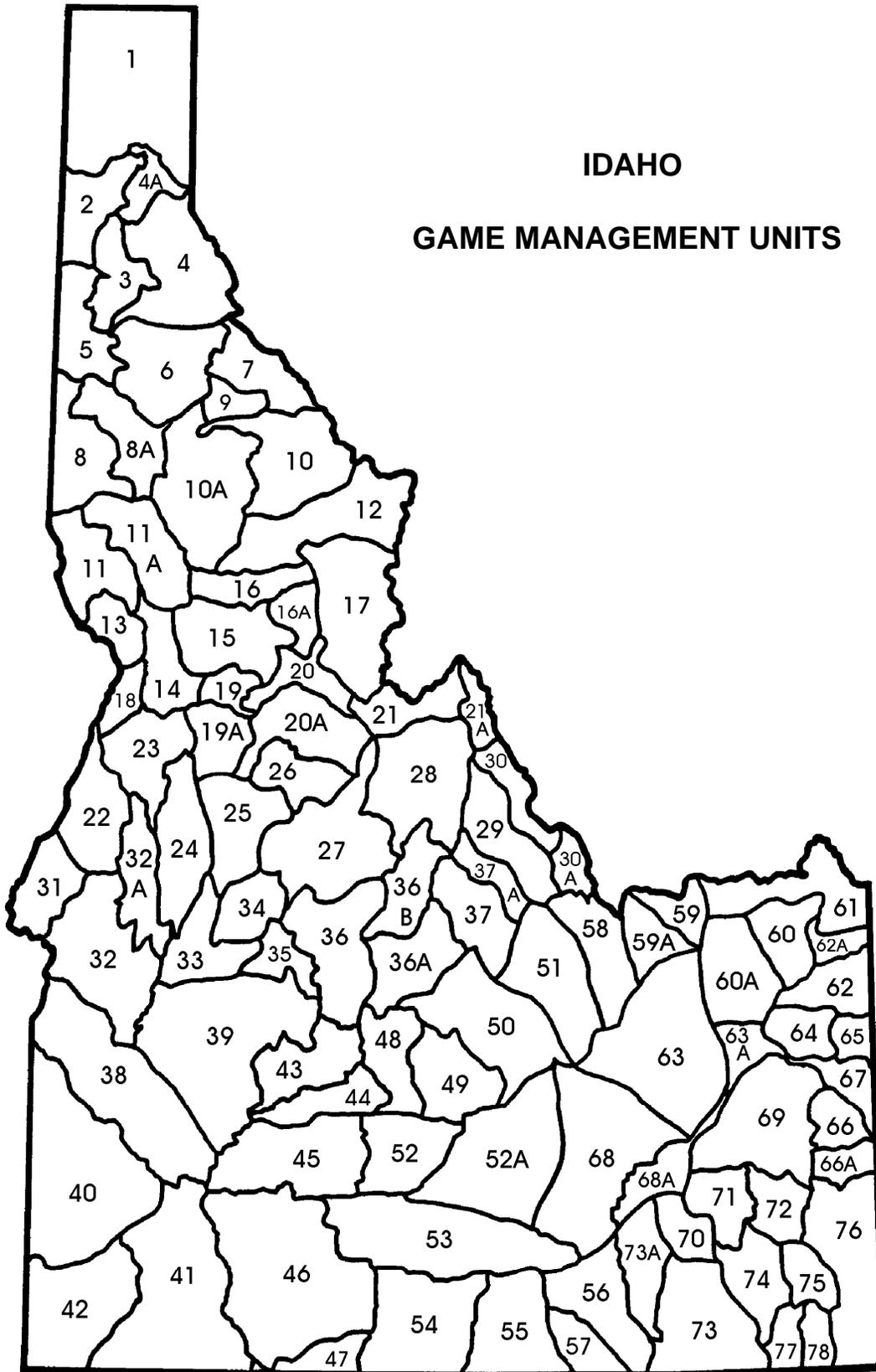
Approved by: IDAHO DEPARTMENT OF FISH AND GAME

Wayne Melquist
Wayne Melquist
State Nongame Wildlife Manager
Federal Aid Coordinator

Tom Parker
Tom Parker, Acting Chief
Bureau of Wildlife

IDAHO

GAME MANAGEMENT UNITS



FEDERAL AID IN WILDLIFE RESTORATION

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

