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Jerry Mallet, Interim Director

Project W-170-R-23

STATEWIDE SURVEYS AND INVENTORY

July 1, 1998 to June 30, 1999



MOUNTAIN GOAT

JOB PROGRESS REPORT

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 Rohlman.....Southwest Region (McCall)
Randy Smith, Bruce Palmer..... Magic Valley Region
Dave Koehler Upper Snake Region
Mike Scott..... Salmon Region

Compiled and Edited by: Jon Rachael and Lonk Kuck

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**PROGRESS REPORT
SURVEYS AND INVENTORY**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mountain Goat Surveys</u>
PROJECT:	<u>W-170-R-23</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, 1998 to June 30, 1999</u>		

MOUNTAIN GOAT - STATEWIDE

ABSTRACT

There were 17 mountain goat controlled hunts with 68 total permits issued in 1998. Hunters harvested 57 mountain goats in 1998 for an 84% success rate. Mountain goat hunters harvested 61 mountain goats in 1997 for a success rate of 90%. In 1998 there were 555 first-choice applicants for 68 mountain goat permits (statewide drawing odds were 1:8.2). There were 558 applicants for the 68 permits offered in 1997 with drawing odds of 1:8.2.

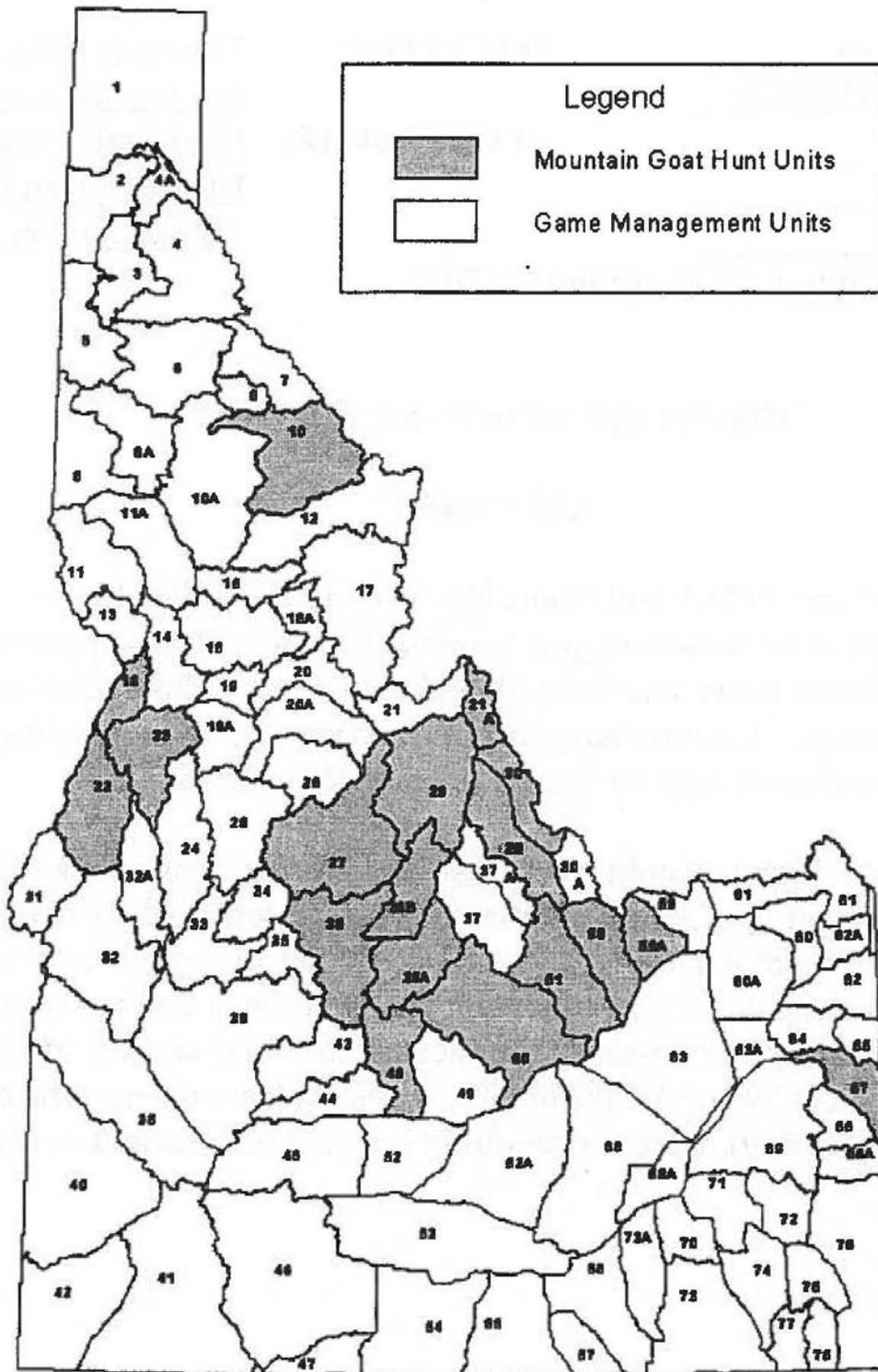


Figure 1. Mountain Goat Management Units in Idaho.

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PROJECT:	<u>W-170-R-23</u>		<u>and Inventories</u>
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STUDY:	<u>I</u>		<u>Utilization, and Associated</u>
JOB:	<u>5</u>		<u>Habitat Studies</u>
PERIOD COVERED: <u>July 1, 1998 to June 30, 1999</u>			

MOUNTAIN GOAT – PANHANDLE REGION

ABSTRACT

Four discrete mountain goat populations exist in the Panhandle Region: the Selkirk population in Unit 1 (30-40 mountain goats), the West Cabinet populations in Unit 1 and in Montana (50-70 mountain goats), the Bernard Peak population in Unit 4A (20-30 mountain goats), and the Snow Peak population in Unit 9 (50-70 mountain goats). No mountain goat hunts are offered in Idaho on these populations, although four permits are issued by Montana on the West Cabinet population.

The Snow Peak population has been used traditionally as a transplant source for starting new, or augmenting existing, mountain goat populations. Trapping has been inactive since 1994 due to a lack of funding.

A mountain goat survey in the West Cabinets was conducted during August 1998 in cooperation with the Montana Department of Fish, Wildlife, and Parks. This survey was conducted concurrently with a black and grizzly bear survey of the area for financial efficiency. Ten hours of flight time were expended in the West Cabinets, approximately half of which can be attributed to bear surveys. Surveys were restricted to early morning (0530-1000 hours) and late evening (1700-2100 hours) flights.

In the past Idaho has conducted helicopter flights during winter only. Surveys did not include the entire population, only the Idaho portion and that area immediately adjacent in Montana. Results of this flight, therefore, are not comparable to prior Idaho surveys. Fifty mountain goats were observed during the survey, only 13 of which were located in Idaho (Table 1). Twenty-two percent of the observations were kids, indicating no major problem in recruitment through late summer.

Table 1. Results of the August 1998 survey of mountain goats in the West Cabinet Mountains.

State	Total	Adults	Subadults	Kids	Location
Idaho	2	1	1		Twin Peaks
	1	1			Drift Peak
	3	2		1	Savage Creek
	4	1	2	1	Scotchman #2
	1	1			Beetop Mountain
	1	1			Morris Creek
	1	1			Morris Creek
	Subtotal	13	8	3	2
Montana	4	3		1	MF Ross Creek
	1	1			MF Ross Creek
	6	4	1	1	MF Ross Creek
	2	1		1	MF Ross Creek
	3	2		1	Mt. Vernon Spires
	6	4		2	Mt. Vernon Spires
	2	2			Little Spar Lake
	1	1			Spar Creek
	1	1			Spar Creek
	1	1			Spar Peak
	2	1		1	Spar Peak
	4	3		1	Mt. Side, WF Blue Creek
	3	2		1	Mt. Side, WF Blue Creek
	1	1			Mt. Side, WF Blue Creek
	Subtotal	37	27	1	9
Total	50	35	4	11	West Cabinet Mountains

**PROGRESS REPORT
SURVEYS AND INVENTORY**

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PROJECT:	<u>W-170-R-23</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, 1998 to June 30, 1999</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 1998, 9 permittees harvested 8 mountain goats. No mountain goat surveys were conducted in the region during the reporting period.

**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 1986-91 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 1998 only 3 hunts with 9 permits were offered in the region (Table 1).

POPULATION SURVEYS

Aerial surveys for mountain goats in the region were last conducted from 3-5 May 1996 in Units 10 and 12 (Tables 2, 3, and 4). The Unit 10 survey revealed an 18.5% drop in total numbers, but static recruitment levels. The decline is a function of a small drop in the Collins/Quartz Creek area and a significant drop in the South Fork Kelly/Williams Creek area, which lies in Hunt Area 12. Likewise, the Unit 12 survey revealed a decline in numbers.

HARVEST CHARACTERISTICS

Harvest levels have changed little during the last 10-year period. During 1998, 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 documented in 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. Sixty-eight mountain goats have been transplanted at Clearwater Region sites from 1962 to 1998 (Table 6).

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 intensified in 1998-1999 compared to the previous year. La Nina weather patterns produced cooler and wetter conditions, especially at higher elevations, and resulted in 130% of average snowpack with twice the amount of water content as last year. However, weather at lower elevations was comparatively mild and, as a result, provided favorable winter range conditions for big game species. Total mountain precipitation in the Clearwater River basin (October through March) was above average (125%). Cool spring temperatures contributed to a delay of green-up conditions throughout much of the region.

MANAGEMENT IMPLICATIONS

Permit levels in areas where hunts are offered will remain conservative to avoid overexploitation. In 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 1996 in Units 14, 19, and 20. A list of hunts, which were closed prior to 1991, can be found in the Clearwater Region portion of the Department's 1986-91 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

No aerial surveys were conducted in the region during the reporting period (Tables 8, 9, and 10). Previous survey results have suggested stable or declining populations in Units 19 and 20, and a recent decline in Unit 18.

HARVEST CHARACTERISTICS

Many of the mountain goat hunts remained closed in 1998 because of low populations or absence of mountain goats (see Clearwater Region portion of the Department's 1986-91 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 1998 the 5 permittees harvested 4 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. Trapping at Bald Mountain in Unit 10 in 1994 and 1996 culminated in the release of a total of 9 mountain goats in the Frank Church River of No Return Wilderness at Big Squaw Creek in Unit 20. Trapping efforts in 1998 at Black Mountain, Unit 10, resulted in 4 mountain goats. One was translocated to Johns Creek in Unit 15 and the remaining 3 mountain goats were released at Big Squaw Creek in Unit 20.

HABITAT AND CLIMATIC CONDITIONS

The topography of Units 14, 18, 19, and 20 is dominated by the deep, rugged canyons of the Snake and Salmon Rivers. 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 those in Units 10 and 17.

Clearwater Region weather intensified in 1998-1999 compared to the previous year. La Nina weather patterns produced cooler and wetter conditions, especially at higher elevations, and resulted in 130% of average snowpack with twice the amount of water content as last year. However, weather at lower elevations was comparatively mild and, as a result, provided favorable winter range conditions for big game species. Total mountain precipitation in the Clearwater River basin (October through March) was above average (125%). Cool spring temperatures contributed to a delay of green-up conditions throughout much of the region.

MANAGEMENT IMPLICATIONS

Permit levels will remain conservative to avoid overexploitation. In 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 1998 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, 1991^a and 1996.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio Kid:100 Adult
1991	10	Isabelle Cr.	50	13	0	63	26.0
1996			48	13		61	27.1
1991		Collins to	73	15	0	88	20.5
1996		Quartz Cr.	61	14	0	75	23.0
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

Table 3. Summary of Mountain Goat Surveys in Unit 17, 1991^a and 1994.

Year	Hunt		Adults	Kids	Unknown	Total	Ratio
	Area	Inclusive Location					Kid:100 Adult
1991	17	E. Fk. 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, 1981-1996.

Year	Hunt		Adults	Kids	Unknown	Total	Ratio
	Area	Inclusive Location					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, 1989-Present.

Area	Year	No. Permits	Harvest		Hunter Success	Days/Hunter	Total First Choice Applicants	Drawing Odds
			M	F				
609A-1	1989	2	1	0	50	1.5	8	1:4.0
	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
609A-2	1989	2	1	0	50	8.5	24	1:12.0
	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
612-6	1989	3	3	0	100	3.7	31	1:10.3
	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 & Capture Site	Unit & 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.	0	1	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

Table 7. Season Structure for the 1998 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

Table 9. Summary of Mountain Goat Surveys in Unit 19, 1981-Present.

Year	Hunt Area	Inclusive Location	Adults	Kids	Unknown	Total	Ratio
							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 in Unit 18, 1989-Present.

Area	Year	No. Permits	Harvest		Hunter Success	Days/Hunter	Total First	Drawing Odds
			M	F			Choice Applicants	
618	1989	5	1	4	100	1.0	41	18.2
	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

**PROGRESS REPORT
SURVEYS AND INVENTORY**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mountain Goat Surveys</u>
PROJECT:	<u>W-170-R-23</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, 1998 to June 30, 1999</u>		

MOUNTAIN GOAT - SOUTHWEST REGION, NAMPA

ABSTRACT

No mountain goat surveys were conducted or harvest occurred in the Southwest Region in 1998-1999.

**PROGRESS REPORT
SURVEYS AND INVENTORY**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mountain Goat Surveys</u>
PROJECT:	<u>W-170-R-23</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, 1998 to June 30, 1999</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 1991-95 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

Currently, there are no hunting seasons for mountain goat 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 1991-95 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 1988-90 reporting period. Authorization from the appropriate land management agencies was obtained during the 1989-90 reporting period. These sites were incorporated into the Department's 1991-95 Mountain Goat Management Plan.

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

<u>Year</u>	<u>Area</u>	<u>Adults</u>	<u>Kids</u>	<u>Total</u>	<u>Ratio Kid:100 Adult</u>
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-23</u>		<u>and Inventories</u>
SUBPROJECT:	<u>4</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, 1998 to June 30, 1999</u>		

MOUNTAIN GOAT - MAGIC VALLEY REGION

ABSTRACT

No aerial surveys were conducted during the reporting period. Two hunters in Unit 48 were successful in 1998.

**UNITS 43, 48, 49
CONTROLLED HUNT AREA 648**

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 -- Due to concern over declining mountain goat numbers and a lack of information on the status of populations, mountain goat hunting seasons were closed in Unit 43 from 1979-80. Surveys conducted in February 1981 indicated mountain goat numbers were high enough to allow limited hunting. From 1981-90, 4 controlled hunt permits (2 hunt areas) were authorized and from 1991-94, 3 permits (1 hunt area) were authorized. Helicopter surveys conducted in March 1994 and April 1996 indicated the population in Unit 43 had decreased and did not meet minimum standards to allow harvest, according to the 5-year plan guidelines. Unit 43 has been closed to mountain goat hunting since 1995.

Unit 49 -- From 1981-86 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 mountain goat population in Unit 49 was not large enough to justify harvest. Since 1987 there has been no mountain goat hunting authorized in Unit 49.

Unit 48 -- From 1981-86, 4 permits were issued in 2 hunt areas (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 648-2 hunt area. From 1987-90 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). Based on aerial survey results in 1990, harvest was reduced. 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. The Magic Valley Region units are shown in Figure 1 and 1998 season structures are given in Table 1.

POPULATION SURVEYS

No population surveys were conducted in 1998-99. Past surveys are summarized in Table 2.

TRANSPLANTS

No transplants were conducted in the region (Table 3).

HARVEST CHARACTERISTICS

Telephone Survey

No telephone survey was conducted in 1998-99 for mountain goats (Tables 4 and 5).

Mandatory Check

A mandatory check-in requirement for mountain goat hunters has been in effect since 1981. In 1998 both Unit 48 mountain goat hunters were successful. Both hunters took male mountain goats in 4 days of hunting. The estimated ages were 6 and 9 years (Table 5).

MANAGEMENT IMPLICATIONS

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 closing the season or increasing permits slightly.

Although legal harvest has not occurred since 1987 in Unit 49, population levels remain static. The population may require transplants as outlined in the 1991-1995 Mountain Goat Management Plan. Currently, the U.S. Forest Service is attempting to improve mountain goat habitat through improved livestock management, which should assist in population recovery if transplants are initiated.

Table 1. 1998 structure for controlled, either-sex, mountain goat hunts 648 in the Magic Valley Region.

Hunt Nos.	Season Dates	Length (Days)
648	8/30-11/12	75

Table 2. Summary of Mountain Goat Surveys in Units 43, 48, and 49, 1981-1998.

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	643	Unit 43 ^{d,e}	25	7	0	32	29

^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	
1998	No activity						

Table 4. Summary of Mountain Goat Harvest and drawing odds in hunt area 643-1, 643-2, and 643, 1983-1998.

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
643 ^a	1995				CLOSED			
643 ^A	1996				CLOSED			
643 ^a	1997				CLOSED			
643 ^a	1998				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, and 648-2, 1983-1998.

Area	Year	No. Permits	Harvest		Hunter Success	Days/Hunter	Total 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
648 ^c	1995	2	0	2	100	3.5	13	1:6.5
648 ^c	1996	2	2	0	100	1.0	8	1:4
648 ^c	1997	2	2	0	100	5.5	16	1:8
648 ^c	1998	2	2	0	100	2.0	13	1:6.5

* 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-23</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, 1998 to June 30, 1999</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).

Five controlled hunts were offered in the Upper Snake Region in 1998. Thirty-five permits were offered, and 26 mountain goats were harvested (74% success) based on mandatory harvest reports (no telephone survey was conducted on trophy species permit holders again in 1998). Drawing odds ranged from 5.3:1 to 10.0:1.

A population survey was flown in Unit 67 in August 1998. A total of 33 mountain goats with 27 kids:100 adults was counted in Hunt Area 67-2 (north of Palisades Creek). In Hunt Area 67-1 (south of Palisades Creek), a total of 163 mountain goats were tallied with a kid:adult ratio of 38:100.

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 1998.

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 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 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 ratios of 13:100 were observed on this survey.

HARVEST CHARACTERISTICS

Nine permits were issued in these hunts in 1998, and 8 mountain goats were harvested for a hunter success rate of 100% in Hunt Area 51, and 80% in Hunt Area 59A (Table 3). The harvest consisted of 7 males and 1 female. However, no telephone survey was conducted from 1996-1998 mountain goat permit holders. Therefore, 1996-1998 harvest estimates were derived from

mandatory harvest reports and are not directly comparable with previous telephone survey estimates. Drawing odds were 10.0:1 for Hunt Area 51 and 7.2:1 for Hunt Area 59A in 1998 (Table 3).

CLIMATIC CONDITIONS

The region experienced an unusually cool and wet spring. The cool rainy conditions ceased in mid-June and the summer and fall were warm and dry. Winter precipitation was near normal while temperatures were above average.

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 1981-82. Season structure for Hunt Area 50 is shown in Table 4.

POPULATION CHARACTERISTICS

A helicopter survey was conducted most recently in Unit 50 in February 1992 (Table 5). The total number of mountain goats counted in the Hunt Area 50 portion was only 53% of the total counted on the next most recent survey (1985). Additionally, the kid:adult ratio was only 9:100. While counting conditions were less than ideal due to below normal snow cover, it is unlikely that over half of the mountain goats were missed.

HARVEST CHARACTERISTICS

Two permits were issued in Hunt Area 50 in 1998, resulting in the harvest of 1 male and 1 female mountain goat (Table 6). Drawing odds (Table 6) were 8.5:1 in 1998.

CLIMATIC CONDITIONS

The region experienced an unusually cool and wet spring. The cool rainy conditions ceased in mid-June and the summer and fall were warm and dry. Winter precipitation was near normal while winter temperatures were above average.

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 February 1992 population survey.

UNIT 67 CONTROLLED HUNT AREAS 67-1, 67-2, 67-3, 67-4

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.

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.

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 1998, 13 mountain goats (4 males and 9 females) were harvested on the 20 permits (65% success rate) on the 67-1 hunt (Table 10). Three mountain goats (all males) were harvested

on the 4 permits offered in Hunt Area 67-2 in 1998. Drawing odds were 6.5:1 in Hunt 67-1 and 5.3:1 in Hunt 67-2 in 1998 (Table 10).

CLIMATIC CONDITIONS

The region experienced an unusually cool and wet spring. The cool rainy conditions ceased in mid-June and the summer and fall were warm and dry. Winter precipitation was near normal while winter temperatures were above average.

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 were 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 were 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) were 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 from 24 to 3 and a restructuring of Unit 67 mountain goat hunts in 1991.

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 were readjusted in Hunt Area 67-1 in 1997 by increasing permits from 7 to 20 based on the results of the 1996 surveys.

The downward population trend in Hunt Area 67-2 is cause for concern and will be monitored closely. The 67-2 hunt was closed for the upcoming (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. 1998 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, 59A), 1989-1998.

Hunt Area	Year	No. Permits	Harvest		Hunter Success	Days/Hunter	Total 1st Choice Applicants	Drawing Odds
			M	F				
51	1989	6	4	2	100	4.2	28	4.6:1
	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
59	1989	2	1	1	100	6.5	19	9.5:1
	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			--	--	--	--
59A	1989	3	0	3	100	1.0	22	7.3:1
	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

^a Harvest estimates derived from telephone survey through 1995 and from mandatory harvest reports from 1996-1998.

Table 4. 1998 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	50-1	Area ^b	13	3	0	16	23
1985 ^a			9	2	0	11	22
1992 ^a			13	0	0	13	0
1982 ^a	50-2	Area ^c	37	8	0	45	22
1985 ^a			66	20	6	92	30
1992 ^a			45	4	0	49	9

^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) 1989-1998.

Hunt Area	Year	No. Permits	Harvest		Hunter Success	Days/Hunter	Total 1st Choice Applicants	Drawing Odds
			M	F				
50	1989	5	3	2	100	4.0	26	5.2:1
	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

^a Harvest estimates derived from telephone survey through 1995 and from mandatory harvest reports from 1996-1998.

Table 7. 1998 Season structure for controlled, either-sex, mountain goat Hunt Areas 67-1 and 67-2 in the Upper Snake Region.

Hunt Area	Season	
	Dates	Length (Days)
67-1	8/30 – 11/12	75
67-2	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	Ratio
							Kid:100 Adult
1982 ^a	67-1	South of Palisades Creek	33	13	0	46	39
1985 ^a			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	Ratio
							Kid:100 Adult
1982 ^a	67-2	North of Palisades Creek	45	12	0	57	27
1985 ^a			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), 1989-1998.

Hunt Area	Year	No. Permits	Harvest		Hunter Success	Days/Hunter	Total 1st Choice Applicants	Drawing Odds
			M	F				
Mt. Baird ^{a,c}								
67-2	1989	4	2	2	100	4.8	20	5.0:1
	1990	4	1	1	50	6.8	45	11.3:1
67-1 ^{c,d}	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 ^f	7	4	1	71	ND	77	11.0:1
	1997 ^f	20	8	8	80	ND	166	8.3:1
	1998 ^f	20	4	9	65	ND	129	6.5:1
67-4	1989	4	0	4	100	1.3	40	10.0:1
	1990 ^b	4	2	1	75	1.3	38	9.5:1
67-6	1989	4	3	0	75	5.7	12	3.0:1
	1990	4	3	1	100	2.0	38	9.5:1
Mt. Baldy ^a								
67-1	1989	4	2	1	75	1.8	24	6.0:1
	1990	4	3	1	100	1.3	19	4.8:1
67-2 ^d	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 ^f	4	3	1	100	ND	41	10.3:1
	1997 ^f	4	3	1	100	ND	26	6.5:1
	1998 ^f	4	3	0	75	ND	21	5.3:1
67-3	1989	4	2	2	100	2.8	25	6.3:1
	1990	4	1	2	75	3.3	29	7.3:1
	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
67-5	1989	4	3	0	75	2.0	17	4.3:1
	1990	4	3	1	100	4.3	22	5.5:1
67-4 ^e	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 Hunt Areas 67-1, 67-3, 67-5 and 67-2, 67-4, 67-6 sequential (1986-1990).

^b No mandatory report received from one hunter.

^c Hunt Areas 67-2, 67-4, 67-6 combined and renamed 67-1 in 1991.

^d Hunt Area 67-1 renamed 67-2 in 1991.

^e Hunt Area 67-5 renamed 67-4 in 1991.

^f Harvest estimates derived from telephone survey through 1995 and from mandatory harvest reports from 1996-1998.

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-23</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, 1998 to June 30, 1999</u>		

MOUNTAIN GOAT - SALMON REGION

ABSTRACT

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. Overall hunter success averages 89% and 65% of the harvest is male. The 1998 Salmon Region hunter success was 100%.

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 27-3, 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 historic 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

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. 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 1998 was exceptionally wet, producing lush, abundant forage. Very little snow fell until late January 1999. However, total snowpacks eventually reached above average levels, particularly at higher elevations. Winter temperatures were generally mild, seldom dropping below zero Fahrenheit. Very cool temperatures and wet weather persisted through much of the spring, delaying snowmelt and green-up. Although the cumulative impact of the winter was moderate to severe, animals entered the winter in excellent 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, subalpine 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 historic 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

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	
	1995-1998 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	
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	
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	
36-1	1982-1998 Closed								
36-2	1989-1998 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	

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				
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
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
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
	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
	(*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

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
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

Carl Anderson
Regional Wildlife Manager

Dave Koehler
Regional Wildlife Biologist

Mike Scott
Regional Wildlife Manager

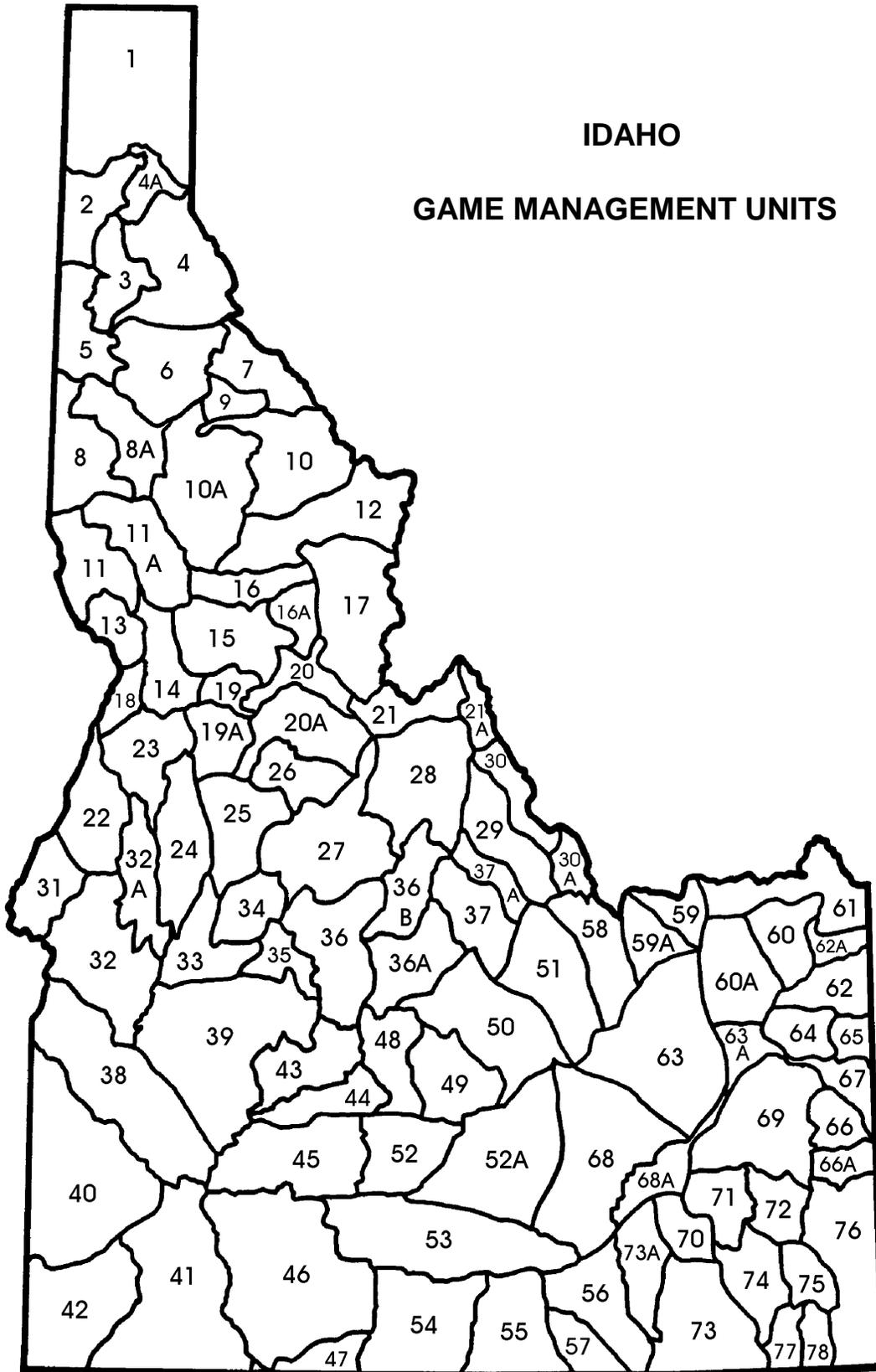
Approved by: IDAHO DEPARTMENT OF FISH AND GAME

Wayne Melquist
Wayne Melquist
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.

