IDAHO DEPARTMENT OF FISH AND GAME

Cal Groen, Director

Project W-170-R-34

Progress Report

PRONGHORN

Study I, Job 7

July 1, 2009 to June 30, 2010

Prepared by:

Steve Nadeau, Jake Powell ..... Southwest Region
Randy Smith, Regan Berkley..... Magic Valley Region
Toby Boudreau, Corey Class ..... Southeast Region
Daryl Meints, Russell Knight ..... Upper Snake Region
Tom Keegan..... Salmon Region
David Smith ..... Wildlife Bureau

Compiled and edited by: Jon Rachael, State Game Manager

September 2010
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Findings in this report are preliminary in nature and not for publication without permission of the Director of the Idaho Department of Fish and Game.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

TABLE OF CONTENTS (Continued)

LIST OF TABLES

STATEWIDE

TABLE OF CONTENTS (Continued)

LIST OF FIGURES

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Pronghorn Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	3-7	**STUDY NAME:**	Big Game Population Status, Trends, Use, and Associated Habitat Studies
STUDY:	I		
JOB:	7		

PERIOD COVERED: July 1, 2009 to June 30, 2010

STATEWIDE

Summary

A total of 15,799 hunters (15,199 resident hunters and 600 non-resident hunters) applied for 1,465 controlled pronghorn permits offered in 2009. There were 15 fewer permits offered in 2009 than in 2008. Thirty-four different limited controlled hunts were offered in Southwest, Magic Valley, Southeast, Upper Snake, and Salmon regions and generally ran from 25 September to 24 October. In addition, 1,444 hunters participated in unlimited entry controlled archery pronghorn seasons, converted from general season archery hunts in prior years and offered from 15 August through 15 September in 32 Game Management Units (GMUs). Sixty-five permits were offered in 2009 for youth hunters (12-17 years of age) to take pronghorn.

An estimated 2,993 controlled hunt permittees hunted pronghorn. Hunters harvested 1,335 pronghorn in 11,840 days of hunting.

Introduction

Most pronghorn populations in Idaho have densities that vary from low to moderate. In general, Idaho's pronghorn habitats do not support the levels which are characteristic of high-quality habitats in Wyoming and Montana. Low annual precipitation, poor range conditions, and conflicts with private landowners are probably important reasons for the differences. The Camas, Birch Creek, Medicine Lodge, Little Wood, Big Lost, and Little Lost valleys support herds at relatively high densities.

Hunter success in most years exceeds 65% in many controlled hunts. The proportion of bucks harvested in Idaho by permittees in either-sex pronghorn controlled hunts averaged 85% in 2009. A history of pronghorn harvest is presented in Table 1. The 2009 pronghorn season structure is presented in Appendix A.

When Idaho implemented the 1991-1995 Pronghorn Management Plan, the pronghorn GMUs were divided into 5 groups of units with similar attributes and hunting opportunities (Fig 1). Knowledge of the opportunities present in these units will allow hunters to select the type of area and hunting experience they prefer. The Department's objective is to provide a variety of

opportunities allowing hunters to match the setting and experience they desire. Variables used to classify units were hunting pressure, pronghorn density and herd composition, road density and condition, natural condition of the environment, and distance from major human population centers.

In Group 1 GMUs, hunting pressure is light or dispersed and generally occurs in areas of high aesthetic appeal away from major human population centers. Roads often traverse rough terrain, are of poor quality, and are limited in number. Pronghorn numbers may be low or moderate, but the opportunity to harvest a mature buck is high. Management objectives for Group 1 hunts include: 1) maintain an average horn length of 12.0 inches in the firearm buck harvest, and 2) maintain a preseason buck:doe ratio of greater than 50:100.

Group 2 GMUs can provide a full range of opportunities to hunters. Pronghorn numbers are moderate, supporting higher hunter densities, higher harvest, and higher success rates in many GMUs. Doe/fawn pronghorn hunts are often offered in these GMUs for population control. Within many of these GMUs, opportunities exist to participate in Group 1 or Group 3 type hunts if desired. Management objectives for Group 2 hunts include: 1) maintain an average horn length of 12.0 inches in the firearm buck harvest, and 2) maintain a preseason buck:doe ratio of greater than 40:100.

In general, Group 3 GMUs are characterized by variable hunter and pronghorn densities, high road densities, and motorized vehicle use. Availability of pronghorn bucks is limited. Private ownership of, and restricted access to, pronghorn habitat is high in most GMUs and has resulted in depredation problems that often dictate hunting season structure and harvest levels. Management objectives for Group 3 hunts include: 1) maintain a preseason buck:doe ratio of greater than 40:100.

With the exception of GMUs 48 and 54, no hunts are offered in Group 4 and Group 5 GMUs. Although pronghorn are present in GMUs of Group 4, low population numbers and/or low production levels limit harvest opportunity at this time. Portions of Group 5 GMUs were historically pronghorn habitat, but currently support few or no pronghorn.

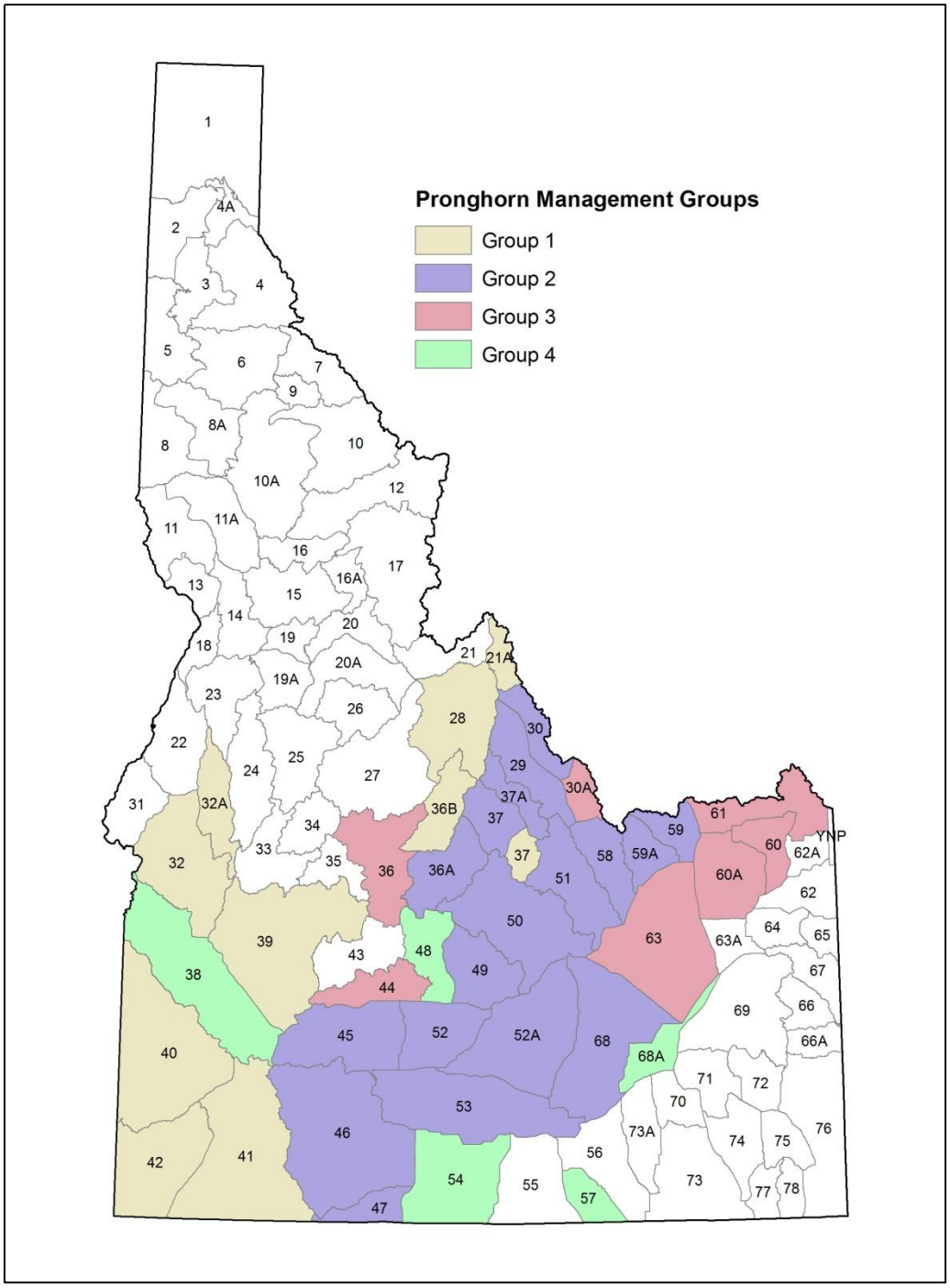


Figure 1. Pronghorn management groups in Idaho.

Table 1. Pronghorn estimated harvest history in Idaho, 1940-present.

Season	Year	Hunters	Harvest	Success (%)	Days hunted
Archery	1982	760	130	17	4,900
	1983	400	100	33	2,600
	1984	230	20	8	1,200
	1985	300	40	14	1,600
	1986	100	40	40	400
	1987	600	200	33	3,300
	1988	800	200	27	4,800
	1989	340	60	18	2,400
	1990	200	80	36	1,300
	1991	170	80	28	900
	1992	600	150	25	2,900
	1993	550	80	15	3,000
	1994	860	235	27	4,800
	1995	790	135	17	4,100
	1996	920	155	17	5,200
	1997-99[a]				
	2000	772	189	24	3,800
	2001	822	245	30	3,450
	2002	1,126	263	23	5,448
	2003	1,036	259	25	4,915
	2004	1,299	291	22	5,599
	2005	1,260	304	24	5,351
	2006	1,584	380	24	7,030
	2007	1,823	429	24	8,216
	2008	1,734	382	22	8,653
	2009	1,444	329	23	7,133
Controlled	1982	2,400	2,000	85	4,500
	1983	2,900	2,300	76	6,400
	1984	2,740	2,050	70	5,600
	1985	2,900	2,150	73	5,900
	1986	3,000	2,500	83	6,200
	1987	2,900	2,400	77	6,300
	1988	3,100	2,600	80	6,800
	1989	2,900	2,240	72	6,900
	1990	2,500	2,000	72	6,600
	1991	3,600	2,870	75	9,600
	1992	3,980	3,000	72	11,100
	1993	3,740	2,390	60	11,500
	1994	3,110	1,600	72	10,900
	1995	2,170	1,360	63	6,500
	1996	1,920	1,260	66	6,000
	1997	2,128	1,305	61	7,200
	1998	1,917	1,153	55	6,600
	1999	1,631	1,149	63	5,285

Table 1. Continued.

Season	Year	Hunters	Harvest	Success (%)	Days hunted
	2000	1,571	1,086	69	4,825
	2001	1,584	1,118	71	4,615
	2002	1,500	1,076	72	4,554
	2003	1,379	989	72	4,338
	2004	1,453	963	66	4,542
	2005[b]	1,592	1,104	69	4,859
	2006[b]	1,591	1,096	69	4,636
	2007[b]	1,507	1,036	69	5,049
	2008[b]	1,479	1,046	71	4,715
	2009	2,993	1,335	45	11,840
Extra doe/fawn	1989	1,400	1,200	86	3,200
	1990	1,300	1,100	85	3,400
Total	1940		400		
	1941				
	1942		700		
	1943				
	1944		1,470		
	1945		650		
	1946				
	1947		461		
	1948		419		
	1949		383		
	1950		539		
	1951		1,349		
	1952		1,520		
	1953		1,254		
	1954		970		
	1955		822		
	1956		919		
	1957		1,001		
	1958		821		
	1959		679		
	1960		701		
	1961		579		
	1962		549		
	1963		774		
	1964		839		
	1965		977		
	1966		1,219		
	1967		1,286		
	1968		1,294		
	1969		1,472		
	1970		1,551		
	1971		1,465		

Table 1. Continued.

Season	Year	Hunters	Harvest	Success (%)	Days hunted
	1972		1,486		
	1973		1,237		
	1974		1,301		
	1975		1,314		
	1976		1,380		
	1977		1,250		
	1978		1,345		
	1979		1,430		
	1980		1,498		
	1981		1,837		
	1982	3,160	2,130	67	9,400
	1983	3,300	2,400	73	9,000
	1984	2,970	2,070	70	6,800
	1985	3,200	2,190	68	7,500
	1986	3,100	2,540	82	6,600
	1987	3,500	2,600	74	9,600
	1988	3,900	2,800	72	11,600
	1989	4,640	3,540	75	12,500
	1990	4,000	3,180	79	11,300
	1991	3,770	2,950	78	10,500
	1992	4,600	3,150	68	13,000
	1993	4,290	2,470	58	14,500
	1994	3,110	1,835	59	10,900
	1995	2,960	1,495	51	10,600
	1996	2,780	1,410	51	11,200
	1997[a]	2,128	1,305	61	7,200
	1998[a]	1,917	1,153	55	6,600
	1999[a]	1,631	1,149	63	5,285
	2000	2,343	1,275	54	8,625
	2001	2,406	1,363	57	8,065
	2002	2,626	1,339	51	10,002
	2003	2,415	1,248	52	9,253
	2004	2,752	1,254	46	10,141
	2005[b]	2,852	1,408	49	10,210
	2006[b]	3,054	1,476	48	11,666
	2007[b]	3,330	1,465	44	13,265
	2008[b]	3,213	1,427	44	13,382
	2009[b]	2,993	1,335	45	11,840

[a] Due to budget limitations, no survey was conducted to estimate number of pronghorn harvested by archery hunters during general season.

[b] Controlled harvest information includes Super Hunts, Landowner Appreciation Permits, and depredation hunts.

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Pronghorn Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	3	**STUDY NAME:**	Big Game Population Status, Trends, Use, and Associated Habitat Studies
STUDY:	I		
JOB:	7		

PERIOD COVERED: July 1, 2009 to June 30, 2010

SOUTHWEST REGION

Abstract

Group 1 - A total of 408 permits were issued and 217 pronghorn were harvested in controlled hunts in 2009, including 14 pronghorn harvested by 28 landowner appreciation permit holders. Hunter success averaged 53%. Average horn length met the minimum management objective of 12 inches in GMUs 32, 39, and 42. Additionally, 2 pronghorn were taken by super tag permit holders in GMU 39.

An estimated 513 hunters harvested 119 antelope (23% success rate) during the 15 August-15 September unlimited controlled archery season in GMUs 40, 41, and 42.

Group 4 - No hunts or surveys took place in this area during the reporting period.

Group 1

Game Management Units 32, 39, 40, 41, 42

Habitat Issues – In Owyhee County, pronghorn habitat is characterized by sagebrush uplands bisected by deep canyons. Domestic livestock grazing is prevalent on most range shared by pronghorn. Much of the pronghorn habitat in GMUs 32 and 39 are under private ownership and many have been converted from native rangeland to plantings of crested wheat or other species to benefit livestock. Additionally, the private land and adjacent public land is grazed heavily and annual grasses have taken over as the dominate plant in a significant portion of habitat.

Pronghorn habitat is largely impacted by range fire, livestock grazing, and low precipitation. Any vegetation manipulation has the ability to impact pronghorn, especially those practices that remove/alter the forb component of the understory and native brush communities. Invasion of noxious weeds and annual grasses is a major threat to pronghorn habitat and these threats should continue to be addressed with the appropriate land management agencies.

In GMUs 32 and 39, the conversion of private land into ranchettes and planned communities has the ability to significantly reduce the effectiveness of remaining available pronghorn habitat.

Several proposed communities in the Mayfield area could potentially bring over 40,000 residents into the area. This huge development, coupled with increased public utilities and roads would severely impact this pronghorn herd.

Additional threats to pronghorn habitat could come in the form of power transmission lines that are planned to cross the Region, wind power development, and potential effects of military training in the area. Fencing that is not wildlife compatible can impede pronghorn migration throughout the region.

Occasionally a complaint is received about pronghorn depredations, usually during winter in the Little Jacks area or near Jordan Valley, but complaints are rare and generally not considered a significant issue for this region.

Population Surveys - In August, 2009, aerial line transect surveys were completed with a fixed-wing aircraft for pronghorn in portions of GMUs 39 and 42 (based on methods developed in Wyoming) to better ascertain the dynamics of local pronghorn herds. Nearly 150 were counted in GMU 39, and over 1,500 pronghorn were observed in GMU 42. The area surveyed in GMU 39 comprised the flats between Blacks Creek and Mountain Home and between Interstate 84 and the base of the foothills. The survey area in GMU 42 was bound by the Mud Flat Road on the north, Deep Creek on the west, Blue Creek to the east, and Battle Creek to the south. Approximately 249 (95% CI 132-471) pronghorn were estimated in the survey area in GMU 39, whereas, 2,602 (95% CI 1985-3410) pronghorn were estimated in the survey area in GMU 42. Having baseline information will allow better monitoring of pronghorn populations, and setting reasonable seasons and tag quotas.

A herd composition survey (ground count) was conducted in the Big Springs area of GMU 42 in July 2009. A total of 276 pronghorn were seen, comprising 31 bucks and 94 fawns:100 does, respectively.

Harvest - Based upon harvest reports, controlled hunt harvest (rifle and muzzleloader) remained relatively stable with 217 pronghorn harvested in 2009 (Table 1) compared with 254 in 2008 (50 fewer permits offered in 2009) for a success rate of 53%. The muzzleloader hunt in GMU 41 had a success rate of 28% with a harvest of 10 pronghorn. Average horn length met the minimum management objective of 12 inches in GMUs 32 ($\bar{x}$ = 12.3 in, n = 12), 39 ($\bar{x}$ = 12.8 in, n = 23) and 42 ($\bar{x}$ = 12.4 in, n = 92), but failed to meet objective in GMUs 40 and 41 (Table 2).

An estimated 513 hunters harvested 119 antelope (23% success rate), and hunted 2,273 days during the 15 August-15 September unlimited controlled archery season in GMUs 40, 41 and 42. Average horn length was under the 12 inch mark in GMU 40, 41, and 42 ($\bar{x}$ = 11.7 in, n = 100) for pronghorn taken by archery hunters (Table 2).

Translocation - No translocations occurred in 2009.

Management Implications – Interest in the general season archery hunt in GMUs 40, 41, and 42 has increased in recent years and participation has nearly doubled since 2000. This increase

in archery hunters has led to conflicts as hunters contend over a limited number of watering holes and lowered the quality of the hunting experience for many. Additionally, controlled hunt tag numbers were not adjusted to account for an increase in harvest from archery hunters. To address some of these concerns, the general season archery hunt was changed to an unlimited controlled hunt in 2009. This did not achieve intended goals as an increase in hunters (620 applicants) applied for this hunt in 2009. This hunt was again changed in 2010, with 200 permits offered in a controlled hunt from 15 August – 30 August, and an unlimited controlled hunt offered from 10 September – 24 September. Applications again were higher than anticipated as 492 hunters applied for the unlimited controlled hunt.

The use of off-road vehicles has dramatically increased in recent years and new trails have been pioneered into pronghorn habitat, but especially in the Murphy area of GMU 40. Off-road vehicle use has the potential to displace pronghorn from important habitat, cause undue stress to the animals during critical times of the year, as well as potentially impact habitat with weed introduction and fire.

Group 4

Game Management Unit 38

No hunts or surveys took place in this area during the reporting period. Most of the habitat in GMU 38 has been converted to housing developments or agriculture. The remaining area that could potentially sustain pronghorn has largely been altered to a monoculture of annual grasses and is of little value for pronghorn.

Table 1. Pronghorn harvest, Group 1, Southwest Region, 1984-present.

GMU	Year[a]	Permits	Harvest			Male (%)	Success (%)
			Male	Female	Total		
32	2000	10	6	2	8	75	80
	2001	10	7	0	7	100	70
	2002	15	12	0	12	100	80
	2003	15	11	4	15	73	100
	2004	15	9	1	10	90	67
	2005	15	9	2	11	82	73
	2006	15	7	0	7	100	47
	2007	15	6	2	8	80	53
	2008	14	8	0	8	100	57
	2009	15	12	0	12	100	80
39	1996	10	8	1	9	89	90
	1997	10	9	0	9	100	90
	1998	10	10	0	10	100	100
	1999	10	8	1	9	89	90
	2000	20	16	1	17	94	85
	2001	20	17	0	17	100	85
	2002	50	41	2	43	95	86
	2003	28	22	2	24	92	86
	2004	28	21	1	22	95	79
	2005	28	25	0	25	100	89
	2006	28	20	3	23	87	82
	2007	28	26	0	26	100	93
	2008	28	22	1	23	96	85
	2009	28	25	0	25	100	89
40	1984	50	28	8	36	78	72
	1985	50	27	3	30	90	60
	1986	50	32	8	40	80	80
	1987	50	38	5	43	88	86
	1988	50	35	6	41	85	82
	1989	50	37	4	41	90	82
	1990	100	70	16	86	81	86
	1991	100	77	9	86	90	86
	1992	125	76	13	89	85	71
	1993	125	74	6	80	93	64
	1994	150	82	15	97	85	65
	1995	150	61	20	81	75	54
	1996	150	63	12	75	84	50
	1997	150	48	22	70	69	47
	1998	150	77	13	90	86	60
	1999	150	87	10	97	90	65
	2000	150	67	15	82	82	55
	2001	150	74	13	87	85	58
	2002	150	69	23	92	75	61

Table 1 Continued

GMU	Year[a]	Permits	Harvest			Male (%)	Success (%)
			Male	Female	Total		
	2003	154	73	12	85	86	55
	2004	164	81	16	97	84	59
	2005	163	81	6	87	93	53
	2006	165	77	14	91	85	55
	2007	165	62	12	74	84	45
	2008	157	66	13	80	83	51
	2009	110	44	9	53	83	48
41	1984	10	4	1	5	80	50
	1985	10	5	0	5	100	50
	1986	15	6	0	6	100	40
	1987	15	5	0	5	100	33
	1988	15	10	3	13	77	87
	1989	15	4	1	5	80	33
	1990	25	12	0	12	100	48
	1991[b]	25	10	2	12	83	48
	1992	25	9	1	10	90	40
	1993	25	5	1	6	83	24
	1994	25	6	0	6	100	24
	1995	25	4	3	7	57	28
	1996	25	7	0	7	100	28
	1997	25	5	0	5	100	20
	1998	25	7	0	7	100	28
	1999	25	11	1	12	92	48
	2000	40	12	0	12	100	30
	2001	40	15	3	18	83	45
	2002	40	12	1	13	92	33
	2003	41	12	2	14	86	34
	2004	40	16	0	16	100	40
	2005	39	18	2	20	90	51
	2006	40	26	5	31	84	78
	2007	44	15	1	16	94	36
	2008	41	12	1	13	92	32
	2009	41	11	0	11	100	27
42	1984	55	22	2	24	92	44
	1985	55	18	1	19	95	35
	1986	75	35	7	42	83	56
	1987	75	32	4	36	89	48
	1988	75	47	2	49	96	65
	1989	75	49	2	51	96	68
	1990	100	48	15	63	76	63
	1991	100	82	4	86	95	86
	1992	125	82	15	97	85	78
	1993	125	82	6	88	93	70

Table 1 Continued

GMU	Year[a]	Permits	Harvest			Male (%)	Success (%)
			Male	Female	Total		
	1994	200	107	23	130	82	65
	1995	200	131	0	131	100	66
	1996	200	121	16	137	88	69
	1997	200	110	15	125	88	63
	1998	200	93	5	98	95	49
	1999	200	100	23	123	81	62
	2000	200	95	16	111	86	56
	2001	200	106	22	128	83	64
	2002	200	103	16	119	87	60
	2003	203	104	12	116	90	57
	2004	209	93	14	107	87	51
	2005	210	115	10	125	92	60
	2006	220	141	10	151	93	69
	2007	220	129	11	141	91	64
	2008	213	118	12	130	91	61
	2009	214	101	15	116	87	54

[a] Data from 2003 and later includes Landowner Appreciation Hunt permits and harvest.
[b] Muzzleloader only.

Table 2. Average horn length of harvested pronghorn, Group 1, Southwest Region, 2005-present.

GMU	Year	Sample Size	Average horn length (inches)	
			Archery	Controlled Hunt
32	2005		ND	11.6
	2006		ND	12.8
	2007		ND	11.2
	2008		ND	12.3
	2009		ND	12.3
39	2005		ND	12.3
	2006		ND	12.9
	2007		ND	12.3
	2008		ND	13.6
	2009		ND	12.8
40	2005		11.6	12.1
	2006		11.4	12.5
	2007		11.5	11.8
	2008		12.4	11.7
	2009		11.7	11.5
41	2005		11.4	12.3
	2006		12.3	12.9
	2007		11.6	10.9
	2008		11.7	11.7
	2009		11.6	11.9
42	2005		11.8	12.7
	2006		12.1	12.6
	2007		11.8	12.2
	2008		12.3	12.2
	2009		11.9	12.4

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Pronghorn Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	4	**STUDY NAME:**	Big Game Population Status, Trends, Use, and Associated Habitat Studies
STUDY:	I		
JOB:	7		

PERIOD COVERED: July 1, 2009 to June 30, 2010

MAGIC VALLEY REGION

Abstract

In 2009, all pronghorn archery hunts were converted to controlled hunts. While most (26) GMUs in Idaho are grouped into a single controlled hunt area with unlimited permits, a few GMUs were placed in more discrete controlled hunt areas (still with unlimited permits) to address hunter crowding issues. A portion of GMU 45 and all of GMU 52 comprise a single controlled hunt area, and GMUs 46 and 47 comprise another controlled hunt area. Despite the fact that converting archery hunts to unlimited controlled hunts undoubtedly affected participation and harvest rates in some GMUs, archery harvest data are still presented in the archery tables (rather than controlled hunt tables) below.

Group 2 – Pronghorn populations have generally remained lower than the levels achieved in the late 1980s and early 1990s. Hunting opportunity has been substantially curtailed since 1994 to encourage population growth and meet management objectives. Permit levels in 2009 were only 38% of 1993 levels. Observed reproductive performance in August 2008 was 0.39 fawns/doe in GMU 47 and 0.74 fawns/doe in GMU 49. Horn lengths of hunter-killed pronghorn reported in 2009 met the 12-inch objective in all GMUs except GMUs 49, 52 and 52A. Observed buck ratios from 1991-2009 have averaged 0.32 and 0.39 bucks/doe in GMUs 49 and 46/47, respectively.

Group 3 - Fawn production measured during August surveys averaged 0.83 fawns/doe from 1999-2009, the highest in the region. In August 2009, the observed ratio was .75 fawns/doe. A ratio of 0.59 bucks/doe was observed in August 2009.

Group 4 - GMUs 54 and 57 have relatively low numbers of pronghorn and have been managed for quality opportunity. From 1996-2009, 248 hunters in GMU 54 have harvested 215 pronghorn with a mean horn length of 13.7 in. The hunt in GMU 57 was discontinued in 2002 because of low numbers.

Group 2

Game Management Units 45, 46, 47, 49, 52, 52A, 53

Management - Pronghorn populations in Group 2 GMUs have fluctuated widely during the past 25 years. After declining to low levels in the early 1980s, pronghorn populations increased to relatively high levels in the late 1980s and early 1990s before declining again in 1993. Successive years of drought followed by severe conditions during winter 1992-1993 resulted in population declines estimated at 30-50%. Following the 1993 decline, hunts and permit levels were adjusted to encourage population recovery. Hunting seasons were eliminated in GMUs 45, 52, and 52A, and doe-fawn hunts were eliminated in all GMUs except GMU 46. Since 1994, pronghorn populations have increased moderately in GMUs 45, 49, 52, and 52A, and hunts have been restored in all GMUs. Pronghorn numbers in GMUs 46 and 47 have declined since 1994, and numbers have remained low in GMU 53.

Harvest - Overall, the number of controlled hunt permits offered in Group 2 GMUs in 2009 (291) was only 42% of 1993 levels (695). For all controlled hunts combined, 255 hunters harvested 155 pronghorn (131 bucks and 24 does or fawns). Hunter success in any-pronghorn hunts in 2009 ranged from 11% in the GMU 47 muzzleloader hunt to 92% in GMU 52A and averaged 53% for all controlled hunts combined (Table 1). The popular youth-only hunt in GMU 52 was continued for the tenth year. Fourteen of 24 youth hunters who participated harvested a pronghorn.

The number of bowhunters pursuing pronghorn in Group 2 GMUs increased from 285 hunters in 2002 to 536 in 2008, then decreased to 379 in 2009 when unlimited controlled archery hunts were implemented. Bowhunters harvested an estimated 78 pronghorn (73% bucks) in 2009 for an overall success rate of 21%. Bowhunter success was 24% in 2004, 25% in 2005, 2006, and 2007, and 22% in 2008. Fifty-one percent of the archery harvest was from GMU 46 (Table 2).

One of the goals in the 1991-1995 Pronghorn Management Plan is to maintain a minimum mean horn length of 12 inches for firearm hunts. Horn lengths reported in 2009 were above the 12-inch objective in GMUs 45, 46, and 47, and were slightly below objective in GMUs 49, 52 and 52A (Table 3).

Population Surveys - Sex and age composition data are collected annually on ground surveys during August in GMUs 46, 47, and 49. In GMUs 46/47, the observed ratio of 0.39 fawns/doe was lower than the 1982-2008 mean of 0.51 fawns/doe. In GMU 49, the observed ratio of 0.74 fawns/doe was similar to the 1976-2008 mean of 0.79 fawns/doe.

An objective in the 1991-1995 plan is to maintain an August ratio of 0.40 bucks/doe. From 1991-2008, observed August buck to doe ratios have averaged 0.39 bucks/doe in GMUs 46/47 and 0.33 bucks/doe in GMU 49. In 2009, the observed bucks/doe ratios were above objective in GMUs 46/47; (0.48 bucks/doe) and below objective in GMU 49 (0.28 bucks/doe).

Group 3

Game Management Unit 44

Management - GMU 44 is the only Group 3 GMU in Magic Valley Region. Pronghorn on the Camas Prairie (GMU 44, the Camas Creek drainage in GMU 45, and the northwest corner of GMU 52) are migratory and subsidized by agriculture, primarily alfalfa. During the late 1970s to mid-1980s, depredation complaints on Camas Prairie were common, and the management objective was to maintain the pronghorn population below 100 head. However, depredation complaints have been minimal during the past 15 years, indicating increased landowner tolerance for pronghorn use of private lands. The number of pronghorn observed on the August 2008 and 2009 herd composition surveys suggests a current pronghorn population of more than 400 head. Camas Prairie pronghorn migrate to winter range north of Bliss, where the habitat is in generally poor condition and is considered the primary population-limiting factor.

Harvest - Camas Prairie pronghorns suffered high losses during the 1992-1993 winter. Doe-fawn hunting was curtailed from 1994-1998 to encourage population growth. Since 1999, doe-fawn seasons have been authorized to control the population and minimize depredations. In 2009, 35 permits were offered in the any-pronghorn hunt and 20 permits were authorized in the doe-fawn hunt. Since 1999, hunter success in the 2 hunts combined has averaged 74% (Table 4). The minimum mean horn length reported by hunters in 2009 was 11.4 inches. From 1991-2009, mean horn length met the 12-inch plan objective in 6 years (Table 5).

Population Surveys - The Camas Prairie pronghorn population typically exhibits high August fawn/doe ratios, presumably a function of their high nutritional status from use of agricultural lands. From 1999-2008, observed ratios have averaged 0.83 fawns/doe, higher than any other pronghorn population in Magic Valley Region. In 2009, the observed fawn/doe ratio was 0.75; similar to the previous 9 years' average. The observed ratio of 0.59 bucks/doe is higher than the objective of 0.40 bucks/doe. From 1996-2009, observed August ratios averaged 0.49 bucks/doe. August herd composition surveys are conducted by driving standardized routes that sample most of the pronghorn habitat and serve as a rough index to pronghorn numbers. Since 1996, total pronghorn observed on August herd composition surveys has varied from 65 in 1996 to 378 in 2008 and suggest an increasing trend.

Group 4

Game Management Units 48, 54, 57

Management - In 1989, the Department transplanted 29 pronghorn from the Mud Lake area (GMU 63) to the Shoshone Basin area of GMU 54. In addition, the Nevada Division of Wildlife released pronghorn east of Jackpot, Nevada, near Shoshone Basin in the late 1980s. This interstate population has increased and provides hunting opportunity in Idaho and Nevada.

Harvest - A small controlled hunt has been authorized in GMU 54 since 1996. From 1996-2009, 248 hunters harvested 215 pronghorn for an overall success rate of 87%. Horn lengths

have ranged from 13.1 in. to 14.8 in. with a mean of 13.8 in. (n = 14, SD = 0.590) (Tables 6 and 7).

Population Surveys - In GMU 54, no formal population surveys were conducted. Casual observations by hunters and agency personnel indicate the population has expanded its distribution north of Shoshone Basin to include the area around Nat-Soo-Pah and the foothill areas adjacent to Rock Creek. Pronghorn have been observed as far east as Oakley and are also commonly observed in the cultivated lands near Hub Butte.

In GMU 57, the resident pronghorn population has remained relatively low. A standardized ground survey is conducted annually in September to help monitor herd numbers. In 2008, 71 pronghorn were counted; the highest count since the survey was implemented in 1999. This survey was discontinued in 2009. A hunt with 5 permits was authorized from 1996-2001 to allow some opportunity to harvest the mature bucks this small population supports. The hunt was discontinued in 2002 because of low pronghorn numbers.

Pronghorn numbers in GMU 48 have increased in recent years, allowing this GMU to be included in a hunt area with GMU 52.

Magic Valley Region Management

From 1987-1992, pronghorn populations in Magic Valley Region increased due to a series of mild winters and improved summer-fall habitat in some GMUs. Hunting opportunity was increased substantially during this period and summer depredation problems were common. Both permit levels and harvest increased more than 500% from 1984 to 1992 (Table 8). The combined effects of drought and the harsh conditions of the 1992-1993 winter resulted in a substantial decline in pronghorn numbers region-wide, although populations south of Snake River did not experience the magnitude of decline that occurred in GMUs in the northern portion of the region. Following the 1993 decline, pronghorn numbers increased in the Camas Prairie area through 2004. However, 2005 and 2006 surveys indicated a possible population decline; 2007 and 2008 permits were adjusted downward in response, and this population will continue to be monitored closely. Since the 1993 decline, pronghorn numbers have remained low in GMUs 52A and 53 and have declined slightly in GMUs 46 and 47. The small pronghorn population in GMU 54 is expanding its distribution north and east and will continue to be managed to provide quality-hunting opportunity.

There is a high demand for pronghorn hunting in the region as evidenced by the difficult drawing odds for permits. There were 3,676 first-choice applicants for the 210 permits offered in the region for any-pronghorn rifle hunts in 2009 (5.7% drawing odds).

During the past 20 years, fires have removed more than a million acres of sagebrush-dominated habitat in Magic Valley Region. While these fires may have improved spring, summer, and fall pronghorn habitat in some areas, there have been long-term negative effects on winter range and fawning habitat. These fires will likely hinder recovery of pronghorn populations in GMUs 46, 47, 49, and 52A to the high levels of the late 1980s and early 1990s.

Table 1. Pronghorn any-weapon controlled hunt harvest, Magic Valley Region, Group 2, 1988-present.

			Harvest[a]				
GMU	Year	Permits	Male	Female	Total	Male (%)	Success (%)
45[b]	1988	30	22	2	24	92	80
	1989	50	13	13	26	50	52
	1990	50	23	15	38	61	76
	1991	50	18	18	36	50	72
	1992	50	13	9	22	59	44
	1993	50	6	13	19	32	38
	2001	10	7	1	8	88	80
	2002	10	7	0	7	100	70
	2003	9	9	0	9	100	100
	2004	9	8	0	8	100	89
	2005	10	8	0	8	100	80
	2006	13	5	0	5	100	38
	2007	13	10	0	10	100	77
	2008	13	7	0	7	100	54
	2009	13	8	0	8	100	62
46	1988	50	40	4	44	91	88
	1989	75	60	5	65	92	87
	1990	75	33	20	53	62	71
	1991	100	35	43	78	45	78
	1992	160	53	69	122	43	76
	1993	160	48	58	106	45	66
	1994	110	48	38	86	56	78
	1995	110	45	31	76	59	69
	1996	160	34	54	88	39	55
	1997	160	45	47	92	49	58
	1998	160	47	55	102	46	64
	1999	110	53	37	90	59	82
	2000	110	28	35	63	44	57
	2001	82	42	20	62	68	76
	2002	77	30	23	53	57	69
	2003	78	43	20	63	68	81
	2004	81	46	23	69	67	85
	2005	61	46	2	48	96	79
	2006	67	39	6	46	85	69
	2007	65	52	1	53	98	82
	2008	66	41	6	47	87	76
	2009	66	47	1	48	98	73
47	1988	20	3	2	5	60	25
	1989	20	4	1	5	80	25
	1990	40	8	1	9	89	23
	1991	40	12	5	17	71	43
	1992	40	11	1	12	92	30

Table 1. Continued.

GMU	Year	Permits	Harvest[a]			Male (%)	Success (%)
			Male	Female	Total		
	1993	40	14	3	17	82	43
	1994	40	9	2	11	82	28
	1995	40	9	4	13	69	33
	1996	40	10	0	10	100	25
	1997	40	9	1	10	90	25
	1998	40	10	1	11	91	28
	1999	40	12	4	16	75	40
	2000	40	11	1	12	92	30
	2001	65	13	0	13	100	20
	2002	32	8	4	12	67	38
	2003	37	12	3	15	80	41
	2004	64	19	6	25	76	39
	2005	74	11	2	13	85	18
	2006	75	21	4	25	84	33
	2007	79	19	6	26	73	33
	2008	77	18	1	19	95	25
	2009	83	6	1	7	86	8
49	1988	110	83	13	96	86	87
	1989	110	70	13	83	84	75
	1990	150	84	30	114	74	76
	1991	150	86	33	119	72	79
	1992	175	108	18	126	86	72
	1993	175	72	45	117	62	67
	1994	100	41	26	67	61	67
	1995	100	49	17	66	74	66
	1996	50	30	3	33	91	66
	1997	50	39	7	46	85	92
	1998	50	36	6	42	86	84
	1999	50	27	14	41	66	82
	2000	50	28	8	36	78	72
	2001	50	31	15	46	67	92
	2002	46	30	7	37	81	80
	2003	45	34	4	38	89	84
	2004	45	33	8	41	80	91
	2005	50	31	5	36	86	73
	2006	55	33	9	42	79	76
	2007	53	27	17	44	61	83
	2008	54	23	13	36	64	67
	2009	56	31	8	39	80	70
52[c]	1988	30	22	4	26	85	87
	1989	30	16	3	19	84	63
	1990	30	20	3	23	87	77
	1991	30	22	3	25	88	83

Table 1. Continued.

GMU	Year	Permits	Harvest[a]			Male (%)	Success (%)
			Male	Female	Total		
	1992	30	15	8	23	65	77
	1993	30	7	8	15	47	50
	1994	15	12	0	12	100	80
	1995	15	9	1	10	90	67
	1999	10	8	0	8	100	80
	2000	20	13	1	14	93	70
	2001	25	12	2	14	86	56
	2002	24	20	2	22	91	92
	2003	17	13	0	13	100	76
	2004	39	26	2	28	93	72
	2005	45	31	2	33	94	73
	2006	45	35	3	38	92	84
	2007	47	15	17	32	47	68
	2008	46	21	15	36	58	78
	2009	47	16	13	29	55	62
52A[d]	1988	30	19	6	25	76	83
	1989	60	39	8	47	83	78
	1990	60	40	8	48	83	80
	1991	60	44	4	48	92	80
	1992	150	58	63	121	48	81
	1993	150	17	13	30	57	20
	1994	25	8	2	10	80	40
	1995	25	6	1	7	86	28
	2000	20	14	1	15	93	75
	2001	23	14	3	17	82	74
	2002	19	2	2	4	50	21
	2003	20	14	2	16	88	80
	2004	22	9	1	10	90	45
	2005	25	19	1	20	95	80
	2006	28	11	4	15	73	54
	2007	28	15	0	15	100	54
	2008	27	15	5	20	75	75
	2009	28	23	1	24	96	86
53[e]	1988	30	27	3	30	90	100
	1989	50	35	5	40	88	80
	1990	50	38	9	47	81	94
	1991	80	27	23	50	54	63
	1992	90	30	32	62	48	69
	1993	90	14	18	32	44	36
	1994	30	11	3	14	79	47
	1995	30	15	1	16	94	53
	1996	30	10	4	14	71	47
	1997	30	8	4	12	67	40

Table 1. Continued.

GMU	Year	Permits	Harvest[a]			Male (%)	Success (%)
			Male	Female	Total		
	1998	30	8	4	12	67	40
	1999	30	14	6	20	70	67
	2000	30	5	1	6	83	20

[a] Prior to 2006, harvest does not include landowner appreciation permits/harvest.
[b] GMU 45 was closed from 1994-2000.
[c] GMU 52 was closed from 1996-1998.
[d] GMU 52A was closed from 1996-1999.
[e] GMU 53 was closed in 2001 and added to GMU 52A in 2002.

Table 2. Pronghorn archery harvest, Magic Valley Region, Group 2, 2001-present.

GMU	Year	Hunters	Harvest			Male (%)	Success (%)
			Male	Female	Total		
45	2001	36	7	1	8	88	22
	2002	45	12	0	12	100	27
	2003	70	9	1	10	90	14
	2004	100	15	5	20	75	20
	2005	82	18	2	20	90	25
	2006	92	16	2	18	89	20
	2007	89	15	2	17	88	19
	2008	120	19	5	24	79	20
	2009	79	11	4	15	73	19
46	2001	95	28	9	37	76	39
	2002	121	35	5	40	88	33
	2003	145	37	13	50	74	34
	2004	148	46	11	57	81	39
	2005	125	34	11	45	76	26
	2006	178	50	11	62	81	35
	2007	195	54	17	71	76	36
	2008	205	37	12	49	76	24
	2009	158	29	11	40	73	25
47	2001	19	2	2	4	50	21
	2002	26	6	0	6	100	23
	2003	29	0	1	1	0	3
	2004	17	2	0	2	100	12
	2005	23	4	1	5	80	22
	2006	37	11	0	11	100	30
	2007	39	7	1	8	88	21
	2008	30	4	0	4	100	13
	2009	45	5	1	6	83	13
49	2001	41	11	3	14	79	34
	2002	67	5	1	6	83	9
	2003	61	7	4	11	64	18
	2004	60	9	1	10	90	17
	2005	50	7	3	10	70	20
	2006	63	5	0	5	100	8
	2007	78	11	4	15	73	19
	2008	79	11	7	18	61	23
	2009	60	9	5	14	64	23
52	2004	23	0	0	0	0	0
	2005	36	3	3	6	50	17
	2006	67	9	2	11	82	16
	2007	58	7	4	11	64	19
	2008	44	9	2	11	82	25
	2009	1	0	0	0	0	0
52A	2001	18	5	0	5	100	28

Table 2. Continued.

GMU	Year	Hunters	Harvest			Male (%)	Success (%)
			Male	Female	Total		
	2002	18	1	1	2	50	11
	2003	21	4	0	4	100	19
	2004	30	2	2	4	50	13
	2005	6	0	0	0	0	0
	2006	9	1	1	2	50	22
	2007	37	9	0	9	100	24
	2008	31	4	1	5	80	16
	2009	19	3	0	3	100	16
53	2002	7	0	0	0	0	0
	2003	11	0	0	0	0	0
	2004	8	1	0	1	100	13
	2005	6	0	0	0	0	0
	2006	21	6	1	8	75	39
	2007	21	3	0	3	100	14
	2008	27	3	0	3	100	11
	2009	14	0	0	0	0	0

Table 3. Pronghorn horn length for controlled hunts, Magic Valley Region, Group 2, 1991-present.

GMU	Year	Permits	Sample size	Mean maximum horn length (inches)
45[a]	1991	20	4	12.9
	1992	20	8	12.7
	1993	20	6	12.9
	2001	10	7	12.5
	2002	10	7	12.3
	2003	10	9	13.1
	2004	10	8	12.8
	2005	10	8	12.7
	2006	10	5	10.4
	2007	13	10	13.8
	2008	13	7	13.4
	2009	13	8	13.3
46	1991	50	30	12.2
	1992	60	24	12.2
	1993	60	20	12.0
	1994	60	38	12.2
	1995	60	41	11.4
	1996	60	18	11.4
	1997	60	31	13.1
	1998	60	29	13.5
	1999	60	53	12.3
	2000	60	24	13.4
	2001	60	42	11.5
	2002	60	35	12.5
	2003	60	32	12.4
	2004	60	44	10.9
	2005	61	46	12.7
	2006	61	38	11.8
	2007	66	47	11.6
	2008	66	41	12.1
	2009	66	41	12.3
47	1991	40	9	10.9
	1992	40	3	12.2
	1993	40	6	12.6
	1994	40	8	11.4
	1995	40	8	12.6
	1996	40	6	6.5
	1997	40	6	11.5
	1998	40	8	12.3
	1999	40	12	10.9
	2000	40	9	15.2
	2001	65	13	11.4

Table 3. Continued.

GMU	Year	Permits	Sample size	Mean maximum horn length (inches)
	2002	40	8	11.5
	2003	40	12	11.0
	2004	40	18	9.5
	2005	74	11	12.3
	2006	75	34	11.3
	2007	75	19	10.6
	2008	77	16	12.0
	2009	83	6	13.8
49	1991	150	43	11.2
	1992	175	47	12.0
	1993	175	29	11.3
	1994	100	35	12.5
	1995	100	43	10.0
	1996	50	21	9.9
	1997	50	30	10.8
	1998	50	27	11.0
	1999	50	27	11.4
	2000	50	23	13.4
	2001	50	31	10.8
	2002	50	30	11.5
	2003	50	32	9.9
	2004	50	32	11.0
	2005	50	31	10.9
	2006	50	33	11.2
	2007	39	24	11.6
	2008	38	21	11.6
	2009	38	22	10.8
52[b]	1991	30	11	12.7
	1992	15	5	10.4
	1993	15	2	13.0
	1994	15	9	12.0
	1995	15	7	12.0
	1999	10	8	12.3
	2000	20	13	11.6
	2001	25	12	12.5
	2002	25	22	11.4
	2003	45	31	12.4
	2004	45	26	10.0
	2005	45	31	12.0
	2006	20	18	11.2
	2007	22	13	11.6
	2008	22	18	12.4
	2009	22	9	11.6

Table 3. Continued.

GMU	Year	Permits	Sample size	Mean maximum horn length (inches)
52A[c]	1991	60	20	13.2
	1992	75	26	11.6
	1993	75	8	10.9
	1994	25	6	13.8
	1995	25	5	10.6
	2000	20	11	12.4
	2001	25	14	10.7
	2002	25	2	11.5
	2003	45	31	12.5
	2004	25	9	10.8
	2005	25	19	12.0
	2006	25	10	13.0
	2007	28	10	11.8
	2008	27	15	12.4
	2009	28	18	11.3
53[d]	1991	50	13	11.7
	1992	30	13	11.5
	1993	30	5	12.5
	1994	30	8	14.0
	1995	30	14	11.1
	1996	30	7	10.6
	1997	30	6	10.6
	1998	30	7	10.7
	1999	30	14	11.4
	2000	30	4	12.5

[a] GMU 45 was closed from 1994-2000.
[b] GMU 52 was closed from 1996-1998.
[c] GMU 52A was closed from 1996-1999.
[d] GMU 53 was closed in 2001 and added to GMU 52A in 2002.

Table 4. Pronghorn controlled hunt harvest, Magic Valley Region, Group 3, 1987-present.

GMU	Year	Permits	Harvest[a]			Male (%)	Success (%)
			Male	Female	Total		
44	1987	20	20	0	20	100	100
	1988	20	15	2	17	88	85
	1989	30	11	16	27	41	90
	1990	30	8	15	23	35	77
	1991	30	13	13	26	50	87
	1992	50	18	24	42	43	84
	1993	50	16	17	33	48	66
	1994	20	15	1	16	94	80
	1995	20	14	1	15	93	75
	1996	20	17	1	18	94	90
	1997	20	17	3	20	85	100
	1998	40	34	2	36	94	90
	1999	80	32	32	64	50	80
	2000	120	27	50	77	35	64
	2001	120	35	59	94	37	78
	2002	123	29	76	105	28	85
	2003	126	25	75	100	25	79
	2004	134	39	52	91	43	68
	2005	149	34	66	100	34	71
	2006	165	46	66	112	42	68
	2007	59	32	12	44	73	75
	2008	61	28	15	43	65	70
	2009	61	32	12	44	73	72

[a] Prior to 2006, harvest does not include landowner appreciation permits/harvest.

Table 5. Hunter-harvested pronghorn horn length, Magic Valley Region, Group 3, 1991-present.

Hunt area	Year	Permits	Sample size	Mean maximum horn length (inches)
44	1991	10	5	13.2
	1992	20	6	11.0
	1993	20	6	13.1
	1994	20	12	10.3
	1995	20	12	11.5
	1996	20	11	10.1
	1997	20	12	10.5
	1998	40	22	12.2
	1999	40	31	10.7
	2000	40	24	11.9
	2001	40	35	13.2
	2002	40	29	11.9
	2003	40	25	12.4
	2004	50	38	10.7
	2005	50	34	11.6
	2006	50	40	10.7
	2007	39	25	11.2
	2008	39	26	12.1
	2009	39	26	11.4

Table 6. Pronghorn controlled hunt harvest, Magic Valley Region, Group 4, 1996-present.

GMU	Year	Permits	Harvest[a]			Male (%)	Success (%)
			Male	Female	Total		
54	1996	10	9	0	9	100	90
	1997	10	10	0	10	100	100
	1998	10	9	0	9	100	90
	1999	10	9	0	9	100	90
	2000	10	9	0	9	100	90
	2001	15	8	2	10	80	67
	2002	22	19	1	20	95	91
	2003	21	18	1	19	95	90
	2004	23	18	1	19	95	83
	2005	25	22	0	22	100	88
	2006	28	23	0	23	100	82
	2007	28	18	0	18	100	64
	2008	28	21	0	21	100	75
	2009	28	19	0	19	100	68
57[b]	1996	5	4	0	4	100	80
	1997	5	5	0	5	100	100
	1998	5	3	0	3	100	60
	1999	5	4	0	4	100	80
	2000	5	5	0	5	100	100
	2001	5	2	0	2	100	40

[a] Prior to 2006, harvest does not include landowner appreciation permits/harvest.
[b] GMU 57 was closed in 2002 due to low pronghorn numbers.

Table 7. Hunter-harvested pronghorn horn length, Magic Valley Region, Group 4, 1996-present.

GMU	Year	Permits	Sample size	Mean maximum horn length (inches)
54	1996	10	9	13.9
	1997	10	5	14.7
	1998	10	6	14.7
	1999	10	9	13.6
	2000	10	9	14.8
	2001	15	8	13.1
	2002	25	19	13.2
	2003	25	17	14.3
	2004	25	18	13.4
	2005	25	22	13.2
	2006	28	21	13.6
	2007	25	17	13.5
	2008	28	20	13.5
	2009	29	18	13.7
57[a]	1996	5	3	16.0
	1997	5	5	12.2
	1998	5	2	14.5
	1999	5	4	14.7
	2000	5	5	11.7
	2001	5	2	13.8

[a] GMU 57 was closed in 2002 due to low pronghorn numbers.

Table 8. Pronghorn controlled hunt harvest, Magic Valley Region, 1976-present.

Year	Permits available	Harvest[a]			Male (%)	Success (%)
		Male	Female	Total		
1976	120	55	19	74	74	62
1977	120	69	8	77	90	64
1978	100	65	18	83	78	83
1979	110	73	16	89	82	81
1980	160	87	35	120	73	75
1981	216	111	69	180	62	83
1982	120	84	27	111	76	92
1983	115	92	11	103	89	90
1984	120	81	5	86	94	72
1985	160	91	43	134	68	84
1986	190	118	28	146	81	77
1987	240	166	39	205	81	85
1988	320	231	36	267	87	83
1989	415	251	66	317	79	76
1990	485	254	101	355	72	73
1991	540	257	142	399	64	74
1992	745	306	224	530	58	71
1993	745	194	175	369	53	50
1994	310	144	72	216	67	70
1995	340	147	56	203	72	60
1996	315	114	62	176	65	56
1997	315	133	62	195	68	62
1998	335	147	68	215	68	64
1999	335	158	93	251	63	75
2000	445	140	100	240	58	54
2001	420	164	92	256	64	61
2002	400	122	115	237	51	59
2003	420	185	108	293	63	70
2004	465	197	96	293	67	63
2005	465	202	94	296	68	64
2006	476	213	92	306	70	64
2007	372	188	53	242	78	65
2008	382	174	55	229	76	60
2009	339	182	36	218	83	64

[a] Prior to 2006, harvest does not include landowner appreciation permits/harvest.

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Pronghorn Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	5	**STUDY NAME:**	Big Game Population Status, Trends, Use, and Associated Habitat Studies
STUDY:	I		
JOB:	7		

PERIOD COVERED: July 1, 2009 to June 30, 2010

SOUTHEAST REGION

Abstract

Group 2 - Fifty any-pronghorn permits were issued for GMU 68 in 2009. Seventy five percent of hunters in the controlled hunt reported harvesting a pronghorn; this was greater than the success rate in 2008. Four females and 37 male pronghorn were harvested. Harvested males had an average maximum horn length of 12.9 inches. Archery hunters (62) reported taking 12 pronghorn (Table 2). Population information is limited for the GMU because of low density and wide dispersion.

Group 2

Game Management Unit 68

Harvest - The GMU 68 any-pronghorn permit level (50) remained the same in 2009 as in 2008 (Table 1). Additionally, GMU 68 has 5 landowner appreciation permits available. Hunter report cards were used to estimate harvest, participation, and horn length. Hunter success was 75% in 2009, an increase from 2008. All 50 permits were issued.

Sixty-two archery hunters reported hunting an average of 5.7 days per hunter and harvesting 12 pronghorn (12 male) (Table 2).

Mean maximum horn length for the 2009 harvest was 12.9 inches, this exceeds the 12.0-inch objective established in the 1991-1995 Pronghorn Management Plan.

Population Surveys - In the past, little population data has been available on size and trend of this pronghorn herd. Subjective observations by Department personnel and other observers suggest the population increased from the most recent low reached during spring 1993 through 2001; however, significant losses may have occurred during winter 2001-2002.

Approximately 70-80 pronghorn are believed to have crossed American Falls reservoir on the ice during the 2001-2002 winter to the vicinity of the Pocatello Regional Airport. Extensive efforts to haze the animals away from the airport were only partially effective. Observed numbers

declined to around 15 by winter 2002. A fencing project to exclude wildlife from the airport property was undertaken in spring 2004.

Past estimates of the pronghorn population on the Big Desert have been obtained through fixed-wing surveys using line-transect methodology based on Burnham et al. (1980) and modified by Johnson and Lindzey (1990). Line-transect surveys in GMU 68 were flown in autumn 1987 and in spring 1988, 1990, and 1991.

Population estimates calculated for the Big Desert have varied greatly. Confidence limits for the population estimates have been unacceptably wide due to the low density of pronghorn in the area and their unpredictable distribution.

The application of line-transect surveys and use of the TRANSECT II program for pronghorn in areas that have low level, dispersed populations such as the Big Desert has definite limitations (Laake et al. 1979, White 1986). The technique can still provide a systematic method to survey pronghorn over large areas; however, the inability to increase sample sizes easily and cost-efficiently prevents generation of population estimates with acceptable confidence limits.

An aerial survey for pronghorn was conducted during August 1999 within GMU 68. The intent of the survey was to collect distribution and minimum known count data for pronghorn. Strip transects, each 1,500 m, were flown north-south across the GMU. A total of 7.5 hours of flight time was used. Six groups of pronghorn were located with a total count of 64.

Trapping and Transplanting - In December 2004, Southeast Region assisted Utah Division of Wildlife Resources in capturing 56 pronghorn near Torrey, Utah. These animals were transported to GMU 68 in Southeast Region for release. The 56 pronghorn transferred were composed of 36 adults (16 male, 19 female), 6 yearlings (3 male, 3 female), and 14 fawns (6 male, 8 female). Ten of 56 pronghorn released were fitted with radio collars; currently, 7 of 10 are still alive.

Historical Perspective – The SE Region only has one GMU with a significant antelope population, GMU 68. Harvest within the SE Region has been extremely conservative with a controlled hunt in GMU 68 with 50 permits plus 5 LAP permits.

Archery harvest has typically been low averaging around 12 antelope annually. Recently, however, archery antelope harvest increased in harvest in 2007 and in hunter numbers for the past few years (Table 2). In order to prevent over harvest of a population with little population data available, GMU 68 was placed in an unlimited controlled hunt in 2008 with several other GMU's within the state to keep archery antelope hunting growth in check. This step was also taken to preserve hunting quality; during regional big game meetings we received numerous complaints of increased archery hunting pressure.

Literature Cited

Burnham, K. P., D. R. Anderson, and J. L. Laake. 1980. Estimation of density from line transect sampling of biological populations. Wildlife Monographs 72:1-202.

Johnson, B., and F. Lindzey. 1990. Guidelines for estimating pronghorn numbers using line transects. Wyoming Game and Fish Department, Cheyenne, USA.

Laake, J. L., K. P. Burnham, and D. R. Anderson. 1979. User's manual for Program TRANSECT. Utah State University Press, Logan, USA.

White, G. C. 1986. Program TRANSECT II. Colorado State University, Fort Collins, USA.

Table 1. Pronghorn controlled hunt harvest, Southeast Region, Group 2, 1982-present.

GMU	Year	Permits	Harvest[a]			% Male	% Success
			Male	Female	Total		
68	1982	50	36	5	41	88	82
	1983	50	32	16	48	67	96
	1984	50	37	3	40	93	80
	1985	50	35	7	42	83	84
	1986	50	44	4	48	92	96
	1987	75	59	10	69	86	92
	1988	75	59	3	62	95	83
	1989	350	72	214	286	25	82
	1990	225	58	101	159	36	71
	1991	300	82	84	166	49	55
	1992	300	73	65	138	53	46
	1993	100	29	6	35	83	35
	1994	50	16	3	19	84	38
	1995	50	16	4	20	80	40
	1996	50	17	5	22	77	44
	1997	50	19	0	19	100	38
	1998	50	19	1	20	95	40
	1999	50	22	1	23	96	46
	2000	50	29	4	33	88	66
	2001	50	30	5	35	86	70
	2002	50	25	9	34	74	68
	2003	50	29	5	34	85	68
	2004	50	24	4	28	86	61
	2005	50	38	1	39	97	79
	2006	55	27	3	30	90	55
	2007	55	34	3	37	92	67
	2008	55	38	2	40	95	73
	2009	55	37	4	41	84	75

[a] Prior to 2006, harvest does not include landowner appreciation permits/harvest.

Table 2. Hunter-harvested pronghorn horn length, Southeast Region, Group 2, 1992-present.

Hunt area	Year	Permits	Sample size	Mean maximum horn length (inches)
68	1992	100	30	12.4
	1993	100	12	11.8
	1994	50	12	13.7
	1995	50	13	12.3
	1996	50	10	10.8
	1997	50	12	12.3
	1998	50	14	12.4
	1999	50	20	12.8
	2000	50		11.5
	2001	50		12.6
	2002	50		11.1
	2003	50	27	10.9
	2004	50	24	12.2
	2005	50	38	12.8
	2006	50	25	12.8
	2007	50	32	11.9
	2008	50	32	12.9
	2009	50	29	12.94

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Pronghorn Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	6	**STUDY NAME:**	Big Game Population Status, Trends, Use, and Associated Habitat Studies
STUDY:	I		
JOB:	7		

PERIOD COVERED: July 1, 2009 to June 30, 2010

UPPER SNAKE REGION

Abstract

Controlled hunt permit numbers were increased to 527 in 2009 (Table 1). Estimated pronghorn harvest has risen every year beginning in 2004; estimated harvest in 2009 was 381 for the Upper Snake Region (Table 1). These estimates do not include *Access Yes!* super hunt permits or general archery harvest.

Group 2 - No composition or population survey was conducted in Group 2 GMUs during this reporting period. Permit numbers were reduced in GMUs 50 and 51 for the 2009 hunting season. Harvest estimates and horn length data were collected by a mandatory mail-in report of pronghorn tag buyers that was followed by a telephone survey sample of non-responders. The average horn length was at the 12-inch management plan objective in all Group 2 GMUs except for GMU 59 (Table 3). No pronghorn depredation complaints were received in Group 2 GMUs during this reporting period.

Group 3 - No composition or population survey was conducted in Group 3 GMUs during this reporting period. Permit numbers were reduced in GMUs 60A and 61 for the 2009 hunting season; while permit numbers were increased in GMU 63. Harvest estimates and horn length data were collected by a mandatory mail-in report of pronghorn tag buyers that was followed by a telephone survey sample of non-responders. The average horn length was below the 12-inch management plan objective in all Group 3 GMUs (Table 7). One pronghorn depredation complaint was received from Group 3 GMUs during this reporting period.

Group 2

Game Management Units 50, 51, 58, 59, 59A

Management - These mountain-valley GMUs support the most productive pronghorn herds in the region. The Bureau of Land Management and U.S. Forest Service manage most of the land with limited private cultivated land occurring along the major stream corridors. Pronghorn occurring in these GMUs are seasonally migratory and frequently migrate into GMU 63 during winter months.

Minor depredations on hay and grain crops are common during summer, but landowners tolerate most problems when they receive assistance from the Department. Major depredation complaints are received during extremely dry years when pronghorn congregate on irrigated fields. Under these conditions, the Department has authorized additional depredation hunts and paid for crop damage.

Harvest - One of the objectives of the 1991-1995 pronghorn plan for this group of GMUs is to maintain an average horn length of 12 inches in the firearm either-sex harvest. This information was collected by telephone survey from 1994-2000. From 2001-2009, the harvest estimate (Table 2) and horn length estimate (Table 3) were collected by a mandatory report of tag buyers that was followed by a telephone survey of a sample of non-responders. These estimates do not include permits, harvest estimates, or horn length estimates for super hunt harvest. The average horn length was at the 12-inch management plan objective in all Group 2 GMUs except for GMU 59 during this reporting period (Table 3).

Population Surveys - No herd composition or population trend survey was conducted in any Group 2 GMUs during this reporting period. Table 4 provides a summary of composition estimates for GMUs 37/51 and 30A/58 and Table 5 provides a summary of composition estimates for GMUs 59/59A from the 1970s through present. Unfortunately the Department does not currently have sufficient money to conduct aerial surveys for pronghorn.

Depredation - No depredation complaints were received from any Group 2 GMUs during this reporting period.

Group 3

Game Management Units 60, 60A, 61, 63

Management - These GMUs provide important pronghorn habitat but are difficult to manage. GMUs 60, 60A, and the west part of GMU 61 have productive summer range, but access to traditional winter range from these GMUs was blocked when Interstate 15 (I-15) was built. Under current conditions, the herd increases during light to moderate winters but is decimated during hard winters.

Pronghorn summering on the Henrys Lake Flat area of GMU 61 winter in the Madison River Valley, Montana. These pronghorn are managed for non-consumptive value, to minimize landowner depredation and hunter access concerns during summer, and consistent with winter pronghorn population objectives of Montana Fish, Wildlife, & Parks.

GMU 63 provides important wintering habitat for pronghorn summering in Group 2 GMUs. Pronghorn summering in GMU 63 are managed to minimize depredations on hayfields around the Idaho National Laboratory (INL).

Habitat Conditions - Pronghorn habitat in the eastern portion of GMU 61 is restricted to summer range on the Henrys Lake Flat area. These pronghorn winter in the Madison River

Valley of Montana. Summer range is predominantly privately owned. Montana experiences some winter depredation problems involving these pronghorn. Therefore, the Department's goal is to manage this herd for non-consumptive value and use sport harvest to prevent it from increasing and causing more severe depredations.

Habitat in the western portion of GMU 61 is primarily confined to the Beaver Creek and Camas Creek drainages and their tributaries. These pronghorn winter southeast of Dillon, Montana, and currently are not causing any winter depredation problems.

Pronghorn that summer in GMUs 60 and 60A historically migrated across what is now I-15 into GMU 63 to winter. However, with the construction of I-15, this traditional migration route was blocked, forcing them to winter in GMUs 60A and 63A. Consequently, during winters of heavy snowfall, this small herd of pronghorn suffers severe winter loss.

GMU 63 provides winter range for pronghorn summering in Group 2 GMUs and year-round habitat for resident pronghorn. Approximately half the GMU is controlled by the U.S. Department of Energy as INL and is closed to hunting. In several areas, irrigated crops are grown on private lands that abut the INL. Consequently, some of the pronghorn summering in GMU 63 cause depredation problems on private lands. These pronghorn are unavailable to sportsmen for harvest. Summer crop depredations occur on other private land in the GMU but are easier to control with hunting. Fall and winter depredations on stored hay are common from pronghorn summering in, and migrating from, Group 2 GMUs.

Harvest - Permit numbers were reduced in GMUs 60A and 61 for the 2009 season; while permit numbers were increased in GMU 63. The average horn length for reported hunter harvest in 2009 was less than 12 inches for all Group 3 GMUs during this reporting period (Table 7). Although the 1991-1995 pronghorn plan does not include a minimum average horn length goal for this group of GMUs, the plan does note, as a management consideration, that mature buck numbers were below desired levels.

Depredation – One depredation complaint was received from GMU 63 during this reporting period; and that claim was paid. There were no depredation hunts during this reporting period. In order to address the depredation issues in the northern half of GMU 63, two temporary water tanks were placed 1.5 miles onto the Idaho National Laboratory property. These sites are being evaluated for the placement of permanent guzzlers.

Population Surveys - No composition or population trend survey was conducted in Group 3 GMUs during this reporting period. Table 5 provides a summary of pronghorn surveys conducted in GMU 63 since 1983. Unfortunately, the Department does not currently have sufficient money to conduct aerial surveys for pronghorn.

The Environmental Science and Research Foundation, Inc., and, since July 2000, Stoller Corporation, have conducted pronghorn population estimates following methodology described by Johnson and Lindzey (1990). Table 8 shows summer and winter pronghorn population estimates (Transect II; Johnson and Lindzey 1990, Pojar et al. 1995) for INL, 1994-2005.

Summer flights were conducted during July or August; winter flights were conducted during January or February. Stoller Corporation did not calculate population estimates in 2007 due to concern over generating erroneous estimates with the current methodology available.

Pronghorn in GMUs 60 and 60A appear to have recovered from heavy winter mortality suffered during the hard winters of 1983-1984, 1984-1985, and 1992-1993.

Literature Cited

Autenreith R. E. 1982. Antelope-sage grouse ecology [W-160-R-9], Idaho Department of Fish and Game, Boise, USA.

Johnson, B., and F. Lindzey. 1990. Guidelines for estimating pronghorn antelope numbers using line transects. Wyoming Game and Fish Department, Cheyenne, USA.

Pojar, T. M., D. C. Bowden, and B. R. Gill. 1995. Aerial counting experiments to estimate pronghorn density and herd structure. Journal of Wildlife Management 59(1):117-128.

Table 1. Pronghorn harvest, Upper Snake Region, 1977-present.

Year	Permits	Harvest[a]			Male (%)	Success (%)
		Male	Female	Total		
1977	855	440	141	581	76	68
1978	930	502	203	705	71	76
1979	1,030	597	181	778	77	76
1980	1,120	660	164	824	80	74
1981	1,290	870	250	1,120	78	87
1982	1,365	1,025	234	1,259	81	92
1983	2,215	1,009	515	1,524	66	69
1984	2,115	879	354	1,233	71	58
1985	2,000	944	396	1,340	70	67
1986	2,090	1,035	547	1,582	65	76
1987	1,910	979	425	1,404	70	74
1988	2,095	1,156	504	1,660	70	79
1989	2,680	769	1,195	1,964	39	73
1990	2,385	783	1,008	1,791	44	75
1991	1,750	617	668	1,285	48	73
1992	1,555	551	654	1,205	55	65
1993	1,555	454	491	945	48	61
1994	730	379	110	489	78	67
1995	755	362	83	445	81	59
1996	755	354	111	465	76	62
1997	855	255	68	323	79	38
1998	830	353	128	481	73	58
1999	805	375	154	529	71	66
2000	680	328	95	423	78	62
2001	685	344	87	431	80	63
2002	590	293	77	370	79	63
2003	425	245	38	283	87	67
2004	425	231	47	281	82	70
2005	425	245	50	295	83	73
2006	470	276	30	309	89	66
2007[b]	521	286	51	337	84	64
2008	507	340	25	365	93	71
2009	527	327	53	381	86	72

[a] Prior to 2006, harvest does not include landowner appreciation permits/harvest.
[b] Includes depredation permits/harvest.

Table 2. Pronghorn harvest, Upper Snake Region, Group 2, 1995-present.

			Harvest[a]				
GMU	Year	Permits[a]	Male	Female	Total	Male (%)	Success (%)
50	1995	180	97	21	118	82	66
	1996	180	79	24	103	77	57
	1997	180	89	22	111	80	62
	1998	180	75	25	100	75	56
	1999	180	72	30	102	71	57
	2000	130	58	22	80	73	62
	2001	120	53	11	64	83	53
	2002	75	46	8	54	85	79
	2003	75	45	6	51	88	80
	2004	75	48	7	55	87	79
	2005	75	50	8	58	86	81
	2006	83	54	4	58	93	70
	2007	83	68	4	72	94	86
	2008	83	62	6	68	91	81
	2009	81	55	5	60	92	74
51	1995	125	85	4	89	96	71
	1996	125	79	14	93	85	74
	1997	175	89	23	112	79	64
	1998	175	85	29	114	75	65
	1999	175	93	26	119	78	68
	2000	175	88	17	105	84	60
	2001	155	80	20	100	80	65
	2002	105	54	11	65	83	73
	2003	75	48	4	52	92	74
	2004	75	45	4	49	92	71
	2005	75	46	8	54	85	74
	2006	83	52	4	58	90	70
	2007	83	47	3	50	94	60
	2008	83	64	2	66	96	79
	2009	81	57	4	61	93	75
58	1995	50	26	10	36	72	72
	1996	50	25	10	35	71	70
	1997	50	34	4	38	89	76
	1998	50	29	14	43	67	86
	1999	50	36	1	37	97	74
	2000	50	37	8	45	82	90
	2001	75	51	6	57	89	76
	2002	75	45	4	49	92	70
	2003	50	30	7	37	81	84
	2004	50	33	7	40	83	80
	2005	50	29	5	34	85	68
	2006	55	38	5	44	86	80
	2007	55	40	2	42	95	76

Table 2. Continued.

GMU	Year	Permits[a]	Harvest[a]			Male (%)	Success (%)
			Male	Female	Total		
	2008	55	42	3	45	93	81
	2009	55	48	0	48	100	87
59	1995	100	72	11	83	87	83
	1996	100	75	15	90	83	90
	1997	100	80	4	84	95	84
	1998	100	67	16	83	81	83
	1999	100	61	14	75	81	75
	2000	100	58	14	72	81	72
	2001	100	62	10	72	86	72
	2002	100	54	16	70	77	76
	2003	50	30	3	33	91	69
	2004	50	28	10	39	72	78
	2005	50	33	4	37	89	79
	2006	55	44	4	48	92	87
	2007	55	38	8	46	82	83
	2008	55	44	2	46	95	83
	2009	55	40	2	42	95	76

[a] Prior to 2006, harvest does not include landowner appreciation permits/harvest.

Table 3. Hunter-harvested pronghorn horn lengths, Upper Snake Region, Group 2, 1995-present.

GMU	Year	Permits[a]	Sample size	Mean maximum horn length (inches)[a]
50	1995	180	64	11.9
	1996	180	39	11.7
	1997	180	53	10.9
	1998	180	52	11.5
	1999	180	72	11.2
	2000	130	102	11.1
	2001	120	53	10.4
	2002	75	46	10.8
	2003	75	40	11.6
	2004	75	48	10.6
	2005	75	50	12.4
	2006	83	46	12.1
	2007	83	68	13.2
	2008	83	62	12.05
	2009	81	41	12.2
51	1995	125	73	12.1
	1996	125	41	12.2
	1997	175	64	12.1
	1998	175	63	13.3
	1999	175	93	11.8
	2000	175	138	10.5
	2001	155	80	10.5
	2002	105	49	11.9
	2003	75	45	11.7
	2004	75	45	11.8
	2005	75	46	12.0
	2006	83	48	12.5
	2007	83	47	13.4
	2008	83	61	12.2
	2009	81	44	12.5
58	1995	50	20	11.6
	1996	50	15	11.3
	1997	50	28	13.2
	1998	50	19	12.4
	1999	50	36	14.3
	2000	50	42	9.5
	2001	75	51	11.0
	2002	75	45	11.1
	2003	50	29	12.3
	2004	50	33	11.3
	2005	50	29	10.9
	2006	55	35	12.1
	2007	55	40	13.2

Table 3. Continued.

GMU	Year	Permits[a]	Sample size	Mean maximum horn length (inches)[a]
	2008	55	42	12.09
	2009	55	33	12.8
59	1995	100	40	11.5
	1996	100	30	10.6
	1997	100	45	11.6
	1998	100	42	12.8
	1999	100	61	12.1
	2000	100	73	10.7
	2001	100	62	10.6
	2002	100	54	10.6
	2003	50	28	10.9
	2004	50	28	8.5
	2005	50	33	12.1
	2006	55	39	11.7
	2007	55	38	11.8
	2008	55	44	12.4
	2009	55	32	11.8

[a] Prior to 2006, harvest does not include landowner appreciation permits/harvest.

Table 4. Pronghorn surveys in GMUs 37/51 and 30A/58, Upper Snake Region, 1973-present.

GMU(s)	Year	Bucks	Does	Fawns	Total	Bucks:100 does	Fawns:100 does
37/51	1973	90	235	125	450	38.3	53.2
	1974	43	109	86	238	39.4	78.9
	1975	58	171	105	334	33.9	61.4
	1976	97	145	98	340	66.9	67.6
	1977	113	288	170	571	39.2	59.0
	1978	107	354	203	664	30.2	57.3
	1979	114	301	178	593	37.9	59.1
	1980	94	293	152	539	32.1	51.9
	1981	172	504	299	975	34.1	59.3
	1982	176	500	232	908	35.2	46.4
	1983	134	495	284	913	27.1	57.4
	1984	309	830	462	1,601	37.2	55.7
	1986	241	596	342	1,179	40.4	57.4
	1989[a]				4,062		
	1996[b]	309	1,565	506	2,380	19.7	32.3
	2001[c]	149	417	137	703	35.7	32.9
	2003[d]	68	232	96	396	29.3	41.4
	2004[d]	85	185	68	338	45.9	36.8
30A/58	1973	54	132	84	270	40.9	63.6
	1974	73	164	127	364	44.5	77.4
	1975	58	167	124	349	34.7	74.3
	1976	80	127	76	283	63.0	59.8
	1977	61	130	79	270	46.9	60.8
	1978	80	153	146	379	52.3	95.4
	1979	73	136	126	335	53.7	92.6
	1980	96	147	134	377	65.3	91.2
	1981	81	135	90	306	60.0	66.7
	1982	139	282	156	577	49.3	55.3
	1984	107	336	158	601	31.8	47.0
	1986	114	345	149	608	33.0	43.2
	2000	94	230	102	426	40.9	44.3
	2000[e]	147	321	144	612	45.8	44.9
	2003[f]	68	175	58	301	38.9	33.1
	2004[f]	75	210	61	346	35.7	29.0

[a] Line-transect estimate.
[b] Pojar et al. estimate.
[c] Modified Pojar et al. estimate.
[d] Composition survey of the area south of Double Springs Pass Road in GMU 37 and the area north of Wet Creek and west of the Howe-May-Ellis Road in GMU 51.
[e] Population estimate for all of GMU 58.
[f] Composition survey of GMU 30A south of Eighteen Mile Creek and the area north of Scott Canyon and east of Highway 28 in GMU 58.

Table 5. Pronghorn surveys in GMUs 59/59A and 63, Upper Snake Region, 1974-present.

GMU(s)	Year	Bucks	Does	Fawns	Total	Bucks:100 does	Fawns:100 does
59/59A	1974	23	91	78	192	25.3	85.7
	1975	63	132	77	272	47.7	58.3
	1976	110	189	154	453	58.2	81.5
	1977	105	158	94	357	66.5	59.5
	1978	86	202	173	461	42.6	85.6
	1979	97	221	230	548	43.9	104.1
	1980	53	130	104	287	40.8	80.0
	1981	68	162	149	379	42.0	92.0
	1982	129	251	171	551	51.4	68.1
	1984	105	295	235	635	35.6	79.7
	1986	99	281	269	649	35.2	95.7
	2002	37	194	69	330	19.1	20.1
	2002[a]	42	230	89	390	18.3	38.7
63	1983[b]	32	175	84	291	18.3	48.0
	2002[c]				2,111		
	2003[d]	45	141	70	256	31.9	59.6
	2004[d]	47	163	117	327	28.8	71.8

[a] Population estimate for all of GMUs 59 and 59A.

[b] Conducted during mid-August with a Hiller 12-E helicopter. Flights were conducted during calm and clear weather only, and early morning and evening work periods are emphasized. Each population was flown until a minimum of 135 does were counted, or no more animals could be located (Autenreith 1982).

[c] Line-transect estimate.

[d] Composition survey of GMU 63 north of Highway 33 and around the agricultural lands south and east of Mud Lake-Terreton was surveyed with 2 observers and pilot using a Bell G-47 helicopter 4 August 2003.

Table 6. Pronghorn harvest, Upper Snake Region, Group 3, 1996-present.

GMU	Year	Permits	Harvest[a]			Male (%)	Success (%)
			Male	Female	Total		
60A	1996	75	20	8	28	71	37
	1997	75	19	28	47	40	63
	1998	50	17	6	23	74	46
	1999	50	22	11	33	67	66
	2000	50	24	9	33	73	66
	2001	50	26	10	36	72	72
	2002	50	32	7	39	82	89
	2003	25	16	2	18	89	78
	2004	25	19	3	22	86	88
	2005	25	15	4	19	79	86
	2006	28	14	3	17	82	61
	2007	28	21	1	22	95	78
	2008	28	21	1	22	95	78
	2009	26	23	1	24	96	92
61	1996	50	5	11	16	31	32
	1997	50	15	9	24	63	48
	1998	50	1	12	13	8	26
	1999	25	12	10	22	55	88
	2000	25	2	4	6	33	24
	2001	25	9	7	16	56	64
	2002	25	8	9	17	47	74
	2003	25	13	5	18	72	82
	2004	25	9	3	13	69	62
	2005	25	10	9	19	53	76
	2006	28	4	4	8	50	29
	2007	28	7	2	9	77	32
	2008	28	9	6	15	60	53
	2009	25	11	8	19	58	76
63	1996	175	71	29	100	71	57
	1997	225	95	23	118	81	52
	1998	225	79	26	105	75	47
	1999	225	79	32	111	71	60
	2000	150	61	21	82	74	63
	2001	160	63	23	86	73	61
	2002	160	29	13	42	69	31
	2003	125	63	11	74	85	63
	2004	125	49	13	63	78	58
	2005	125	62	12	74	84	65
	2006	138	70	6	76	92	56
	2007[b]	194	65	19	84	77	43
	2008	190	101	5	106	53	55
	2009	204	93	33	127	73	62

[a] Prior to 2006, harvest does not include landowner appreciation permits/harvest.
[b] Includes depredation permits/harvest.

Table 7. Hunter-harvested pronghorn horn lengths, Upper Snake Region, Group 3, 1996-present.

GMU	Year	Permits	Sample size	Mean maximum horn length (inches)[a]
60A	1996	75	10	8.9
	1997	75	13	10.1
	1998	50	14	10.4
	1999	50	22	8.9
	2000	50	37	9.1
	2001	50	26	10.0
	2002	50	32	9.9
	2003	25	16	10.9
	2004	25	19	9.8
	2005	25	15	10.9
	2006	28	13	11.8
	2007	28	21	11.6
	2008	28	21	12.9
	2009	26	19	10.2
61	1996	50	3	10.7
	1997	50	8	10.9
	1998	50	1	3.0
	1999	25	12	9.8
	2000	25	21	8.3
	2001	25	9	6.0
	2002	25	8	9.7
	2003	25	11	9.4
	2004	25	9	9.3
	2005	25	10	10.5
	2006	28	4	8.5
	2007	28	7	9.9
	2008	28	9	9.8
	2009	25	11	6.9
63	1996	175	31	11.1
	1997	225	44	10.8
	1998	225	38	11.3
	1999	225	79	11.8
	2000	150	115	11.6
	2001	160	63	10.8
	2002	160	54	10.8
	2003	125	60	10.7
	2004	125	49	10.4
	2005	125	62	11.0
	2006	138	67	11.0
	2007[b]	194	65	10.5
	2008	190	101	11.7
	2009	204	79	11.3

[a] Prior to 2006, harvest does not include landowner appreciation permits/harvest.
[b] Includes depredation permits/harvest.

Table 8. Estimates of pronghorn on INL, Upper Snake Region, 1994-present.

	Summer			Winter		
	Number		Population	Number		Population
Year	Observed	Groups	estimate	Observed	Groups	estimate
1994[a]	123	39	250±138			
1995[a]	198		474±260	1,093	23	
1996[b]	256	8	1,247±1,212			
1997[a]	64	28	401±190	1,986	82	3,286±692
1998[a]				911	36	3,161±997
1999[a]	52	23	479±112	1,398	21	2,939±1,226
2000[a]	199	58	556±151	1,190	74	3,717±702
2001[a]	98	29	1,307±165	1,341	36	4,126±1,311
2002[a]	51	12	246±98	866	19	7,005±3,624
2003[a]	94	24	185±79	702	45	2,315±542
2004[a]	113	27	216±55	432	50	3,052±907
2005[a]	162	30	174±99	797	55	2,195±786
2006[a]	219	34	1267±474	283	21	734 ± 270
2007[a,c]	119	23		1,130	53	
2010 [a,c]	205	52		494	8	

[a] Line-transect estimate.

[b] Pojar et al. estimate.

[c] As of 2007, Stoller Corp. is no longer calculating population estimates due to concerns over generating erroneous estimates with the current methodology.

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Pronghorn Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	7	**STUDY NAME:**	Big Game Population Status, Trends, Use, and Associated Habitat Studies
STUDY:	I		
JOB:	7		

PERIOD COVERED: July 1, 2009 to June 30, 2010

SALMON REGION

Abstract

There were 154 pronghorn harvested in Salmon Region in 2009, including archery harvest of 22 (16 M, 5 F, 1 unknown) (Table 1). In 2009, pronghorn archery became unlimited controlled hunts across the state because archery harvest had been increasing over the years. Overall harvest in 2009 remained well below harvest levels prior to the mid-1990s. Reductions in recent harvest reflect significant decreases in permits available throughout Salmon Region since the early 1990s. Success for active rifle hunters in regular controlled hunts was 78%; bucks comprised 93% of harvested pronghorn. Average horn lengths met minimum 12-inch criterion in 4 of 6 GMUs: 29, 30A, 36B, and 37. Sample sizes for monitoring horn length were small for all areas.

All doe/fawn permits were eliminated in 1998, compared to 100 issued in 1997 and 825 in seasons during 1992-1993. In 2004, the any-weapon season in GMU 30A was converted to a traditional muzzleloader hunt to maintain hunting opportunity. In 2009, Unit 36A was added as a muzzleloader hunt with 10 tags. Because of changes in GMUs (combination and elimination), comparisons and summaries based on pronghorn-plan groups over time are less meaningful than in previous years. Therefore, for purposes of this section, assignment of GMUs to groups is modified to represent current GMUs and group-specific comparisons are limited. Under current pronghorn densities, most hunting opportunities in Salmon Region would likely be classified into Group 1.

Ground surveys were conducted in the Upper Lemhi and Pahsimeroi valleys to estimate fawn and buck ratios in late August – early September of 2009. In the Upper Lemhi, 278 pronghorn were classified with a fawn ratio of 45.6 fawns/100 does and a buck ratio of 26.5 bucks/100 does. In the Pahsimeroi, 244 pronghorn were classified with a fawn ratio of 40.2 fawns/100 does and a buck ratio of 38.6 bucks/100 does.

Approximately 329 pronghorn were observed incidentally during surveys of other ungulates in GMUs 21A, 28, 36B, and 37.

Group 1

Game Management Units 28, 36B, 37 (Part)

Combination and elimination of all or part of some GMUs has reduced the area of Management Group 1. Only GMU 36B (all of GMU 36B and extreme southeastern GMU 28) remains clearly distinguishable as a Group 1 area. Harvest from this area was 7 pronghorn in 2009, 2 by archers and 5 during the any-weapon hunt (Table 2). Harvest was the similar to 2007 and 2008. Reported mean horn length of 12.75 inches was above the plan criterion of 12 inches (Table 3).

Group 2

Game Management Units 21A (Part), 29, 30, 36A, 37 (Part), 37A

Hunt combinations now incorporate all of GMUs 29, 30, 36A, 37, 37A, and extreme southern GMU 21A in Group 2. Hunters harvested 128 animals in these GMUs (Table 4). For comparable open GMUs, number harvested was slightly less than in 2008. Males comprised 90% of the harvest. Mean horn length met or exceeded pronghorn-plan criterion of 12 inches (Table 5) in GMUs 29 and 37 (12.0 and 13.5 respectively).

Group 3

Game Management Unit 30A

Consolidation of hunt areas left GMU 30A as the only distinguishable GMU in Group 3. Harvest in the single GMU was 18 males in 2009, including 5 by archers. Reduced harvest in both 2004 and 2005 was assumed to result from restricting hunters to traditional muzzleloading equipment (Table 6). However, hunter success increased during 2006 and 2007 before dropping to 52% in 2008 and 43% in 2009. Average horn length of 12.3 inches exceeded the plan goal of 12 inches (Table 7).

Archery

Interest in archery hunting for pronghorn increased significantly over the last several years (+140% from 2001-03 to 2007-09), to the point where general season archery hunter numbers approached those allowed in controlled hunts (Figure 1). Archery harvest also increased (+186%), but accounted for only 15-20% of total harvest. Beginning in 2009, general archery season was replaced with an unlimited controlled hunt. Salmon Region GMUs with pronghorn were included in Hunt Area 21A*. Harvest by approximately 154 archers within Salmon Region amounted to 22 animals (~14% success).

Table 1. Pronghorn controlled hunt harvest (firearms hunts), Salmon Region, 1970-present.

		Harvest[a]				
Year	Permits	Male	Female	Total	Male (%)	Success[b] (%)
1970	855	414	232	646	64	76
1971	855	402	188	590	68	69
1972	885					
1973	875	353	204	557	63	64
1974	835	371	180	551	67	66
1975	765	296	157	453	65	59
1976	725	238	120	358	66	49
1977	610	260	111	371	70	61
1978	460	256	95	351	73	76
1979	445	270	88	358	75	80
1980	445	283	61	344	82	77
1981	495	350	53	403	87	81
1982	565	414	61	475	87	84
1983	670	469	89	558	84	83
1984	745	486	90	576	84	77
1985	745	426	137	563	76	76
1986	760	460	136	596	77	78
1987	760	435	153	588	74	77
1988	760	470	133	603	78	79
1989	968	464	309	773	60	80
1990	774	341	271	612	56	79
1991	995	429	373	802	53	81
1992	1,345	416	561	977	43	73
1993	1,345	372	499	871	43	65
1994	1,010	321	342	663	48	66
1995	915	286	200	486	59	53
1996	620	270	114	384	70	62
1997	620	240	107	347	69	56
1998	510	162	73	235	69	51
1999	245	87	36	123	71	57
2000	245	108	40	148	73	70
2001	220	115	24	139	83	73
2002	195	104	24	128	81	76
2003	195	105	22	127	82	73
2004	195	93	19	112	83	63
2005	180	105	9	114	92	70
2006	196	117	14	131	89	67
2007	193	133	6	139	96	78
2008	198	132	5	138	96	77
2009	203	123	9	132	93	77

[a] Prior to 2006 harvest does not include landowner appreciation permits and harvest.
[b] Before 1998, success calculated as number harvested divided by number of permits available.

Table 2. Pronghorn controlled hunt harvest, Salmon Region, Group 1, 1993-present.

GMU	Year	Permits	Harvest[a]			Male (%)	Success[b] (%)
			Male	Female	Total		
21A	1993	30	3	12	15	20	50
	1994	10	3	1	4	75	40
	1995	10	9	0	9	100	90
	1996	10	2	2	4	50	40
	1997	10	7	0	7	100	70
36A	1993	15	4	4	8	50	53
	1994	15	8	2	10	80	67
	1995	15	6	3	9	67	60
	1996	15	4	1	5	80	33
	1997	15	6	0	6	100	40
	1998	15	4	2	6	67	43
36B	1993	50	18	12	30	60	60
	1994	50	15	10	25	60	50
	1995	50	17	9	26	65	52
	1996	25	16	1	17	94	68
	1997	25	15	0	15	100	60
	1998	25	17	0	17	100	73
	1999	25	11	7	18	61	79
	2000	25	10	0	10	100	42
	2001	25	14	2	16	88	73
	2002	25	8	4	12	75	55
	2003	25	13	0	13	100	57
	2004	25	7	0	7	100	30
	2005	10	4	0	4	100	40
	2006	11	6	1	7	86	64
	2007	10	5	1	6	83	75
	2008	10	5	0	5	100	63
	2009	10	4	1	5	80	56
37-1	1993	175	50	60	110	45	63
	1994	150	51	46	97	53	65
	1995	150	44	27	71	62	47
	1996	100	43	16	59	73	59
	1997	100	33	23	56	59	56
	1998	75	21	13	34	62	51
	1999	25	5	7	12	42	58
	2000	25	11	3	14	79	77
	2001	25	13	2	15	87	67

[a] Prior to 2006 and in 2009, harvest does not include landowner appreciation permits/harvest.
[b] Before 1998, success calculated as number harvested divided by number of permits available.

Table 3. Hunter-harvested pronghorn horn length, Salmon Region, Group 1, 1993-present.

GMU	Year	Permits	Sample size	Mean maximum horn length (inches)
21A	1993	10	2	13.2
	1994	10	2	14.5
	1995	10	9	12.9
	1996	10	2	15.0
	1997	10	5	13.4
36A	1993	15	3	12.9
	1994	15	5	12.4
	1995	15	5	11.8
	1996	15	3	10.0
	1997	15	4	13.4
	1998	15	4	11.5
36B	1993	25	13	11.4
	1994	25	13	13.5
	1995	25	12	14.3
	1996	25	11	13.4
	1997	25	9	12.4
	1998	25	11	13.4
	1999	25	11	12.0
	2000	25	8	12.2
	2001	25	14	12.5
	2002	25	7	12.4
	2003	25	11	12.6
	2004	25	7	10.1
	2005	10	4	8.1
	2006	11	6	11.7
	2007	10	5	12.2
	2008	10	5	11.9
	2009	10	4	12.8
37	1993	75	26	12.4
	1994	75	35	14.0
	1995	75	34	13.6
	1996	75	21	12.3
	1997	75	23	14.3
	1998	75	15	10.8
	1999	25	5	15.7
	2000	25	10	12.3
	2001	25	12	10.8

Table 4. Pronghorn controlled hunt harvest, Salmon Region, Group 2, 1993-present.

GMU	Year	Permits	Harvest[a]			Male (%)	Success[b] (%)
			Male	Female	Total		
29	1993	150	41	46	87	47	58
	1994	100	30	32	62	48	62
	1995	75	27	17	44	61	59
	1996	50	26	5	31	84	62
	1997	50	12	8	20	60	40
	1998	50	9	7	16	56	33
	1999	50	12	11	23	52	47
	2000	50	13	12	25	52	62
	2001	50	16	7	23	70	56
	2002	40	18	6	24	75	77
	2003	40	18	9	27	67	77
	2004	40	23	7	31	74	84
	2005	40	21	2	23	91	62
	2006	44	22	5	27	81	61
	2007	45	26	2	28	93	72
	2008	44	34	1	35	94	95
	2009	44	32	1	33	97	87
30	1993	130	24	63	87	28	67
	1994	80	29	27	56	52	70
	1995	55	23	18	41	56	75
	1996	30	21	6	27	78	90
	1997	30	22	1	23	96	77
	1998	30	26	2	28	93	93
	1999	30	22	0	22	100	77
	2000	30	26	2	28	93	100
	2001	30	23	0	23	100	88
	2002	30	23	2	25	92	83
	2003	30	16	2	18	89	67
	2004	30	20	1	21	95	81
	2005	30	26	1	27	96	96
	2006	33	23	2	25	92	76
	2007	32	27	1	28	96	90
	2008	33	31	1	30	100	94
	2009	30	21	4	25	84	96
36A	1993	150	34	59	93	37	62
	1994	100	32	20	52	62	52
	1995	100	23	22	45	51	45
	1996	75	12	12	24	50	32
	1997	75	21	16	37	57	49
	1998	50	12	4	16	75	35
	1999	25	5	0	5	100	29
	2000	25	3	6	9	33	47
	2009[c]	10	4	0	4	100	50

Table 4. Continued.

GMU	Year	Permits	Harvest[a]			Male (%)	Success[b] (%)
			Male	Female	Total		
37	1993	225	86	87	173	50	77
	1994	200	71	96	167	43	84
	1995	200	59	46	105	56	53
	1996	150	72	49	121	60	81
	1997	150	49	38	87	56	58
	1998	100	20	15	35	57	39
	1999	25	7	2	9	78	47
	2000	25	10	5	15	67	71
	2001	25	13	5	18	72	75
	2002	60	33	8	41	80	82
	2003	60	30	9	40	77	74
	2004	60	35	8	43	81	74
	2005	60	41	6	47	87	82
	2006	64	45	2	47	96	73
	2007	66	52	1	53	98	84
	2008	66	43	1	45	93	75
	2009	65	49	3	52	94	87
37A	1993	150	45	51	96	47	64
	1994	125	30	39	69	43	55
	1995	125	28	23	51	55	41
	1996	75	26	11	37	70	49
	1997	75	24	9	33	73	44
	1998	75	16	13	29	55	45
	1999	25	5	3	8	63	42
	2000	25	8	3	11	73	56
	2001	25	9	3	12	75	71

[a] Prior to 2006 harvest does not include landowner appreciation permits/harvest.
[b] Before 1998, success calculated as number harvested divided by number of permits available.
[c] Muzzleloading equipment only.

Table 5. Hunter-harvested pronghorn horn length, Salmon Region, Group 2, 1993-present.

GMU	Year	Permits	Sample size	Mean maximum horn length (inches)
29	1993	50	15	12.5
	1994	50	22	14.0
	1995	50	23	12.0
	1996	50	15	11.5
	1997	50	8	10.4
	1998	50	7	12.1
	1999	50	12	9.9
	2000	50	12	11.8
	2001	50	16	10.9
	2002	40	16	10.9
	2003	40	15	11.9
	2004	40	23	10.9
	2005	40	21	11.7
	2006	44	19	10.3
	2007	45	25	11.1
	2008	44	25	12.5
	2009	40	23	12.0
30	1993	30	16	12.2
	1994	30	16	12.7
	1995	30	17	13.1
	1996	30	15	11.0
	1997	30	20	12.0
	1998	30	17	12.0
	1999	30	22	11.9
	2000	30	18	12.2
	2001	30	21	12.5
	2002	30	21	13.1
	2003	30	16	12.3
	2004	30	20	11.9
	2005	30	26	12.2
	2006	33	18	12.4
	2007	32	25	12.6
	2008	33	26	12.9
	2009	30	19	11.7
36A	1993	50	9	13.5
	1994	50	23	13.0
	1995	50	20	12.3
	1996	50	7	11.1
	1997	50	17	13.4
	1998	50	9	13.8
	1999	25	5	12.5
	2000	25	3	12.6
	2009	10	4	10.7

Table 5. Continued.

GMU	Year	Permits	Sample size	Mean maximum horn length (inches)
37	1993	100	30	11.8
	1994	100	40	13.2
	1995	100	32	12.3
	1996	100	28	10.3
	1997	100	27	12.4
	1998	100	12	11.8
	1999	25	7	11.0
	2000	25	8	10.9
	2001	25	12	13.1
	2002	60	31	12.8
	2003	60	28	12.8
	2004	60	35	11.2
	2005	60	41	13.0
	2006	64	42	12.3
	2007	66	46	12.9
	2008	66	36	12.1
	2009	60	40	13.5
37A	1993	75	18	12.3
	1994	75	25	11.1
	1995	75	24	11.7
	1996	75	16	12.4
	1997	75	17	11.7
	1998	75	11	12.1
	1999	25	5	11.3
	2000	25	7	10.8
	2001	25	8	11.4

Table 6. Pronghorn controlled hunt harvest, Salmon Region, Group 3, 1993-present.

GMU	Year	Permits	Harvest[a]			Male (%)	Success[b] (%)
			Male	Female	Total		
29	1993	150	38	72	110	35	73
	1994	100	30	44	74	41	74
	1995	75	27	22	49	55	65
	1996	50	28	7	35	80	70
	1997	50	28	8	36	78	72
	1998	50	15	13	28	54	66
30A	1993	120	29	33	62	47	52
	1994	80	22	25	47	47	59
	1995	60	23	13	36	64	60
	1996	40	20	4	24	83	60
	1997	40	23	4	27	85	68
	1998	40	22	3	25	88	71
	1999	40	20	6	26	77	71
	2000	40	27	9	36	75	92
	2001	40	27	5	32	84	87
	2002	40	22	4	26	85	74
	2003	40	28	2	30	93	79
	2004[c]	40	8	3	11	73	31
	2005[c]	40	13	0	13	100	41
	2006[c]	44	21	4	25	84	57
	2007[c]	41	23	1	24	96	65
	2008[c]	44	21	1	21	95	52
	2009[c]	42	13	0	13	100	43

[a] Prior to 2006 and in 2009, harvest does not include landowner appreciation permits/harvest.
[b] Before 2000, success calculated as number harvested divided by number of permits available.
[c] Muzzleloading equipment only.

Table 7. Hunter-harvested pronghorn horn length, Salmon Region, Group 3, 1993-present.

GMU	Year	Permits	Sample size	Mean maximum horn length (inches)
29	1993	50	17	11.0
	1994	50	26	12.8
	1995	50	23	12.2
	1996	50	17	11.1
	1997	50	21	11.2
	1998	50	13	10.2
30A	1993	40	15	11.2
	1994	40	16	12.1
	1995	40	19	10.1
	1996	40	13	11.6
	1997	40	20	11.7
	1998	40	15	12.3
	1999	40	20	10.3
	2000	40	20	10.8
	2001	40	26	10.8
	2002	40	20	11.6
	2003	40	26	11.6
	2004	40	8	9.6
	2005	40	13	12.0
	2006	44	19	10.9
	2007	41	20	11.4
	2008	44	17	12.0
	2009	40	13	12.3

APPENDIX A

IDAHO

2009 SEASON

PRONGHORN RULES

Idaho Big Game Seasons and Rules 2009

Idaho Fish and Game photo

Deer, Elk, Pronghorn
August 2009 - January 2010

Black Bear, Mountain Lion
August 2009 - July 2010

Including Controlled Hunts for
Deer, Elk, Pronghorn, and Black Bear

2009 Pronghorn Hunting Seasons

New for 2009: All pronghorn hunting, including archery seasons, is by controlled hunt. All general archery pronghorn hunts have been changed to controlled hunts. Controlled hunt permits and tags issued for pronghorn controlled hunts may be used only in the hunt for which the permittee was drawn.

Attention Pronghorn Archery Hunters! Don't give your sport a black eye. Did you know that leaving blind material is considered littering? And, digging pits on federal land is a violation of federal law? For more information on how to construct a legal blind, see page 63, or contact your local Bureau of Land Management office.

For details on controlled hunt rules and restrictions please see pages 70-73.

Doe or fawn only: Only pronghorn without a black cheek patch or with horns less than 3 inches long may be taken during doe or fawn only pronghorn seasons. To participate in an archery only pronghorn hunting season, hunters must have on their possession an archery permit in addition to required license, permit, and tag.

2009 Controlled Hunts (1,540 Permits Plus Unlimited Permits)
Either Sex Pronghorn

Hunt No.	Controlled Hunt Areas	Permits	Season Dates	Notes
4001	29	40	Sep 25 - Oct 24	*Motorized Vehicle Restriction, See note 1, Page 52*
4002	30* (see pg 53)	30	Sep 25 - Oct 24	*Motorized Vehicle Restriction in Unit 30, See note 1, Page 52*
4003	36B* (see pg 53)	10	Sep 25 - Oct 24	
4004	37* (see pg 53)	60	Sep 25 - Oct 24	*Motorized Vehicle Restriction, See note 1, Page 52*
4005	39	25	Sep 25 - Oct 24	
4006	40-1	100	Sep 25 - Oct 24	
4007	42* (see pg 53)	200	Sep 25 - Oct 24	
4008	44* (see pg 53)	35	Sep 25 - Oct 24	*Motorized Vehicle Restriction Unit 45, See note 1, Page 52*
4009	45-1	10	Sep 25 - Oct 24	*Motorized Vehicle Restriction, See note 1, Page 52*
4010	46-1	60	Sep 25 - Oct 24	
4011	49	35	Sep 25 - Oct 24	*Motorized Vehicle Restriction, See note 1, Page 52*
4012	50	75	Sep 25 - Oct 24	*Motorized Vehicle Restriction, See note 1, Page 52*
4013	51* (see pg 53)	75	Sep 25 - Oct 24	*Motorized Vehicle Restriction Unit 51, See note 1, Page 52*
4014	52* (see pg 53)	20	Sep 25 - Oct 24	*Motorized Vehicle Restriction, See note 1, Page 52*
4015	52A* (see pg 53)	25	Sep 25 - Oct 24	*Motorized Vehicle Restriction in Unit 53, See note 1, Page 52*
4016	54	25	Sep 25 - Oct 24	
4017	58	50	Sep 25 - Oct 24	*Motorized Vehicle Restriction, See note 1, Page 52*
4018	59* (see pg 53)	50	Sep 25 - Oct 24	*Motorized Vehicle Restriction, See note 1, Page 52*
4019	60A* (see pg 53)	25	Sep 25 - Oct 24	
4020	63-1	50	Sep 25 - Oct 24	
4021	68	50	Sep 25 - Oct 24	

PRONGHORN

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

2009 Controlled Hunts Either Sex Pronghorn Archery Only - Archery Permit Required				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
4022	21A* (see page 53)	Unlimited	Aug 15 - Sep 15	*Motorized Vehicle Restriction in Units 29, 30, 30A, 36A, 37, 37A, 45, 48, 49, 50, 51, 53, 58, 59 & 59A, See Note 1, Page 52*
4023	40-2* (see page 53)	Unlimited	Aug 15 - Sep 15	
4024	45-2* (see page 53)	Unlimited	Aug 15 - Sep 15	*Motorized Vehicle Restriction, See Note 1, Page 52*
4025	46-2* (see page 53)	Unlimited	Aug 15 - Sep 15	*Motorized Vehicle Restriction in Unit 47, See Note 1, Page 52*

2009 Controlled Hunts Doe or Fawn Pronghorn				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
4026	44* (see pg 53)	20	Oct 5 - Oct 24	*Motorized Vehicle Restriction in Unit 45, See note 1, Page 52*
4027	45-3	50	Nov 1 - Dec 31	*Landowner Permission Required, See note 2, Page 52 Private land **only** Motorized Vehicle Restriction, See note 1, Page 52*
4028	46-3* (see pg 53)	25	Aug 15 - Oct 24	*Landowner Permission Required, See note 2, Page 52 Private land **only** Motorized Vehicle Restriction in Unit 47, See note 1, Page 52*
4029	49	15	Oct 5 - Oct 24	*Motorized Vehicle Restriction, See note 1, Page 52*
4030	63-2	25	Nov 1 - Nov 30	

Idaho Fish and Game photo

(continued)

2009 Controlled Hunts Either Sex Pronghorn Muzzleloader Only - Muzzleloader Permit Required				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
4031	30A	40	Sep 25- Oct 24	*Motorized Vehicle Restriction, See note 1, Page 52*
4032	36A	10	Sep 25 - Oct 24	*Motorized Vehicle Restriction, See note 1, Page 52*
4033	41	40	Sep 25 - Oct 24	
4034	47	75	Sep 25 - Oct 24	*Motorized Vehicle Restriction, See note 1, Page 52*
4035	63-2	50	Aug 15- Sep 18	
4036	63-2	50	Sep 19 - Oct 24	

2009 Controlled Hunts Either Sex Pronghorn Short Range Weapon				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
4037	61	25	Sep 25- Oct 24	*Limited Access*

2009 Controlled Hunts Pronghorn Youth Only				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
4038	32* (see pg 53)	15	Sep 25 - Oct 24	*Either sex, Motorized Vehicle Restriction, See note 1, Page 52*
4039	52* (see pg 53)	25	Sep 25 - Oct 24	*Doe or Fawn **only**, Motorized Vehicle Restriction, See note 1, Page 52*
4040	63-2	25	Aug 8 - Oct 24	*Either sex, Muzzleloader **only***

Notes:

1. Motorized vehicle use as an aid to hunting for wildlife is restricted to established roadways open to motorized vehicle traffic capable of travel by full-sized automobiles – any motorized vehicle with a gross vehicle weight in excess of 1,500 pounds. See Page 68.
2. Landowner Permission Hunts. Written permission on a form provided by the Department from a landowner who owns more than 159 acres in the hunt area is required to apply for this hunt. Landowner Permission Hunt Permits will be sold on a first-come, first-served basis at the Jerome and headquarters Fish and Game offices starting July 15. Do not apply for this hunt during the controlled hunt application period.

* *See pronghorn controlled hunt area descriptions.* This hunt includes other units or parts of other units.

Pronghorn Controlled Hunt Area Descriptions

Hunt Area 21A — All of Units 21A, 28, 29, 30, 30A, 36, 36A, 36B, 37, 37A, 44, 48, 49, 50, 51, 52A, 53, 58, 59, 59A, 60, 60A, 61, 68, that portion of Unit 45 within the Camas Creek drainage, and that portion of Unit 63 south of Highway 33. (See Craters of the Moon closure, page 63).

Hunt Area 29 — All of Unit 29 except the Poison Creek drainage.

Hunt Area 30 — All of Unit 30 and that portion of Unit 21A south and east of Carmen Creek Road.

Hunt Area 30A — All of Unit 30A.

Hunt Area 32 — All of Units 32 and 32A.

Hunt Area 36A — All of Unit 36A.

Hunt Area 36B — All of Unit 36B, and that portion of Unit 28 upstream from and including the Iron Creek drainage.

Hunt Area 37— All of Units 37 and 37A, and that part of Unit 29 in the Poison Creek drainage.

Hunt Area 39 — That portion of Unit 39 south and east of Highway 21.

Hunt Area 40-1 — All of Unit 40.

Hunt Area 40-2 — All of Units 40, 41 and 42.

Hunt Area 41 — That portion of Unit 41 east of State Highway 51.

Hunt Area 42 — That portion of Unit 41 west of State Highway 51 and all of Unit 42.

Hunt Area 44 — All of Unit 44 and that portion of Unit 45 within Camas Creek drainage.

Hunt Area 45-1 — All of Unit 45 excluding that portion within Camas Creek drainage.

Hunt Area 45-2 — That portion of Unit 45 excluding the Camas Creek drainage and all of Unit 52.

Hunt Area 45-3 — Private land within Unit 45 excluding that portion within the Camas Creek drainage.

Hunt Area 46-1 — All of Unit 46.

Hunt Area 46-2 — All of Units 46 and 47.

Hunt Area 46-3 — Private land within Units 46 and 54 and private land within that portion of Unit 47 east of Salmon Falls Creek.

Hunt Area 47 — All of Unit 47.

Hunt Area 49 — All of Unit 49.

Hunt Area 50 — All of Unit 50. (See Craters of the Moon closure, page 63).

Hunt Area 51 — All of Unit 51 and that portion of Unit 63 within Butte County.

Hunt Area 52 — All of Units 48 and 52.

Hunt Area 52A — All of Units 52A and 53 (See Craters of the Moon closure, page 63).

Hunt Area 54 — All of Unit 54.

Hunt Area 58 — All of Unit 58.

Hunt Area 59 — All of Units 59 and 59A.

Hunt Area 60A — All of Units 60 and 60A, and that portion of Unit 61 west of Hotel Creek.

Hunt Area 61 — That portion of Unit 61 east of Hotel Creek.

Hunt Area 63-1 — That portion of Unit 63 south of State Highway 33.

Hunt Area 63-2 — That portion of Unit 63 north of State Highway 33, **excluding** the Camas National Wildlife Refuge which is closed.

Hunt Area 68 — All of Unit 68.

For details on controlled hunt rules and restrictions please see pages 70-73.

Submitted by:

Steve Nadeau
Regional Wildlife Manager

Randy Smith
Regional Wildlife Manager

Toby Boudreau
Regional Wildlife Manager

Daryl Meints
Regional Wildlife Manager

Tom Keegan
Regional Wildlife Manager

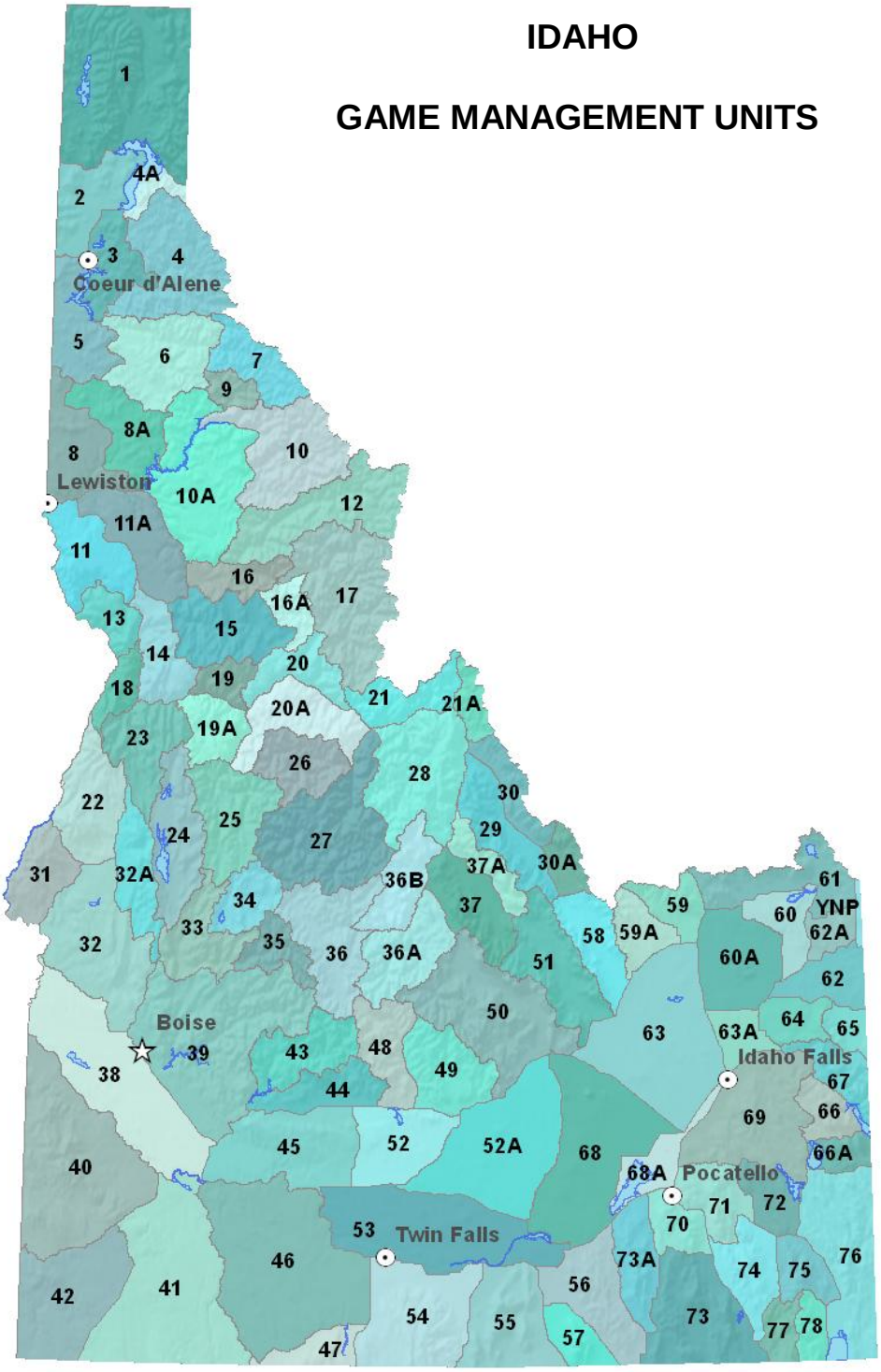
Approved by: IDAHO DEPARTMENT OF FISH AND GAME

Brad Compton, Asst. Chief
Bureau of Wildlife

Jeff Gould, 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.