

2006 JOB COMPLETION REPORT

SPECIES : Pronghorn
 HERD UNIT : COOPER LAKE
 HERD UNIT # : 526
 HUNT AREAS : 43

PERIOD COVERED : 06/01/2006 - 05/31/2007
 WYOMING PROJECT NO. : W-27-R
 PREPARED BY : Rich Guenzel

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
1. PREHUNT SEX AND AGE RATIO COUNT (per 100 females)					
Juveniles	58	58	53	80	69
Males	34	40	38	41	50
Yearling Males	15	10	11	20	23
Mature Males	19	30	27	21	27
Total Sample Size	1,552	1,458	1,643	1,605	2,164
Adequate Sample Size	1,466	1,520	1,328	2,283	2,048

2. HARVEST					
Adult Males	290	309	310	333	327
Yearling Males	0	0	0	0	0
Total Males	290	309	310	333	327
Females	186	222	265	208	251
Juveniles	66	48	40	125	31
Totals	542	579	615	666	609

	#	%	#	%	#	%	#	%	#	%
3. AGE STRUCTURE OF FIELD CHECKED ANIMALS										
Juvenile Female	3	5	8	10	3	6	0		1	4
Yearling Female	3	5	5	6	0		0		0	
Adult Female	8	14	29	37	6	12	0		8	29
Juvenile Male	2	4	6	8	2	4	0		5	18
Yearling Male	8	14	5	6	0		0		2	7
Adult Male	32	57	26	33	38	78	0		12	43
Total Sample Size	56		79		49		0		28	

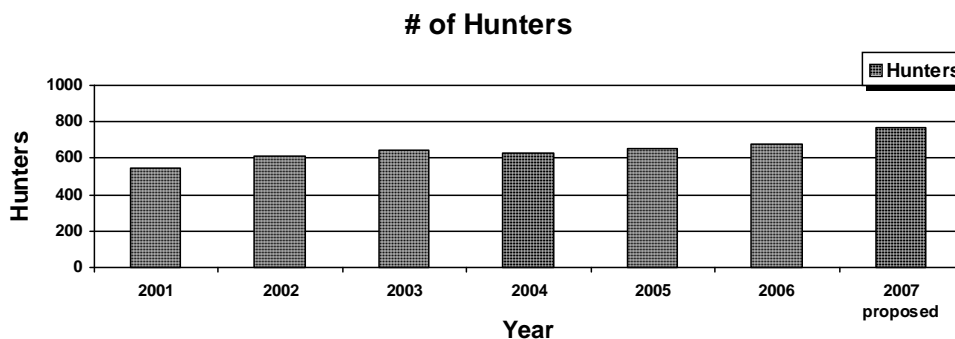
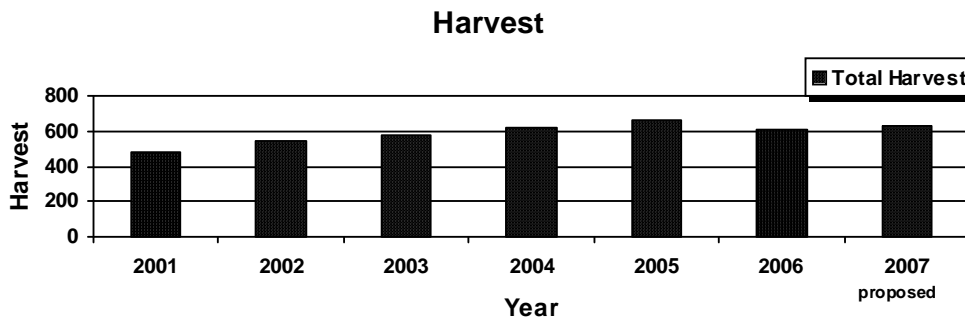
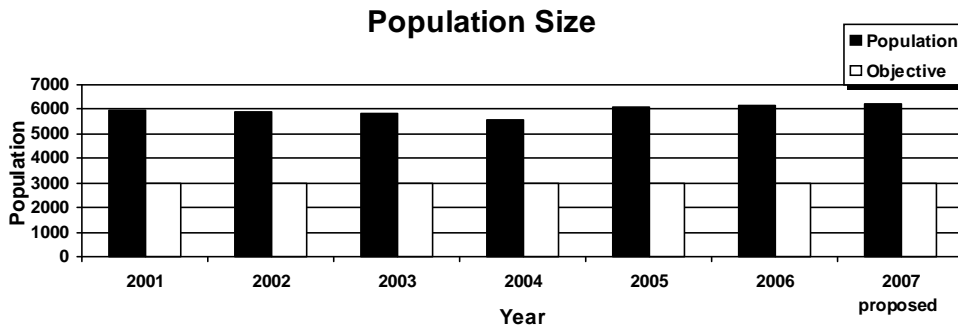
4. POSTHUNT SEX AND AGE RATIO COUNT (per 100 females)					
Juveniles	0	0	0	0	0
Males	0	0	0	0	0
Yearling Males	0	0	0	0	0
Mature Males	0	0	0	0	0
Total Sample Size	0	0	0	0	0
Adequate Sample Size	0	0	0	0	0

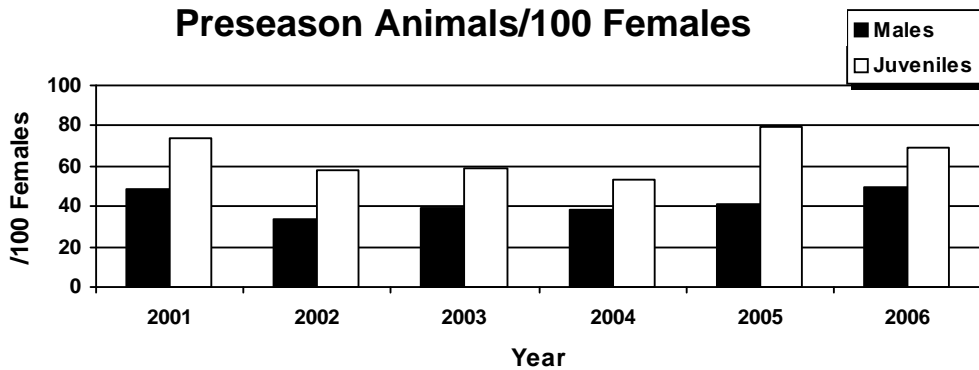
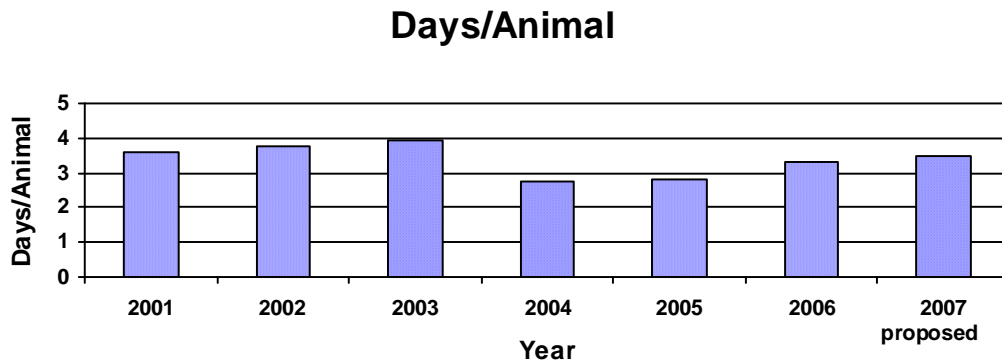
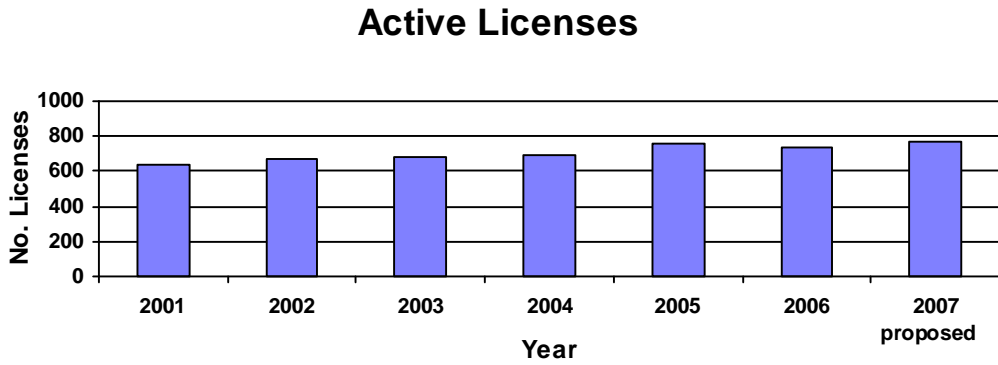
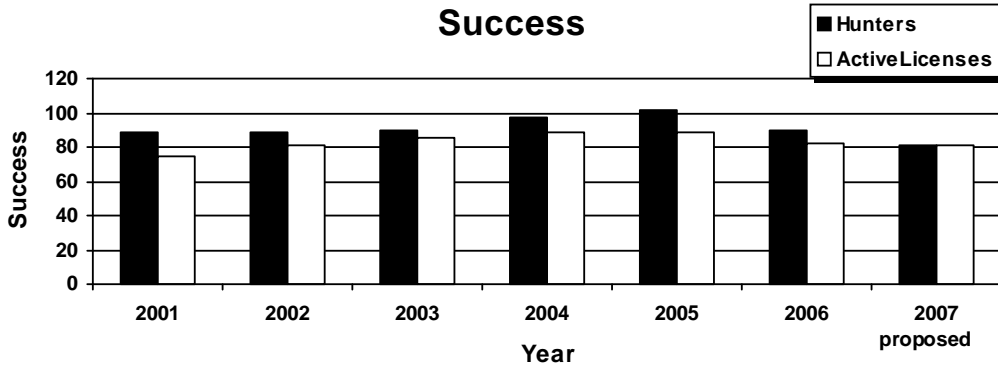
5. POPULATION TRENDS					
Trend Count Dates:					
Trend Count:	0	0	0	0	0
Herd Model Pop Est:	4,958	4,874	4,654	4,899	4,873
Line Trans Pop Est:		4,636			0

SPECIES : Pronghorn
 HERD UNIT : COOPER LAKE
 YEAR : 2006

MODEL DATE : 02/25/07

	Averages 2001 - 2005	2006	Proposed 2007	Objective
Population (Est.)	5,879	6,139	6,197	3,000
Harvest	576	609	630	
Hunters	617	679	772	
Hunter Success	93.3%	89.7%	81.6%	
Active Licenses	688	739	772	
Active Licenses Success	83.7%	82.4%	81.6%	
Recreation Days	1,916	2,030	2,205	
Days/Animal	3.3	3.3	3.5	





JCR **Season Setting** **Evaluation Form** (2004)
(check one)

Year: **2006** Species: **Pronghorn** Herd Unit: **Cooper Lake** Herd unit #: **526** Biologist: **Rich Guenzel**

Management strategy:	<input checked="" type="checkbox"/> Recreational	<input type="checkbox"/> Special	
	5-year average	Current year	Proposed
Population:	5,879	6,139	6,197
Harvest:	576	608	632
Hunters:	688	739	772
% Success:	91%	82%	82%
Rec. Days:	1,916	2,039	2,205
Days/animal:	3.33	3.35	3.49
Population objective			3,000
Percent population is above (+) or below (-) objective:			105%
Number of years population has been + <input checked="" type="checkbox"/> or - <input type="checkbox"/> objective in recent trend:			10
Population estimates tracking with trend counts or line transect results?			Yes
Population trend (incr., stable, decr.):			Increasing
Most recent classification ratio (j/100f/m):			69/100/50
(This classification is: at or above adequate <input checked="" type="checkbox"/> or well below adequate <input type="checkbox"/>)			
Ratio trends (incr., stable, decr.): m/100f:			Stable
	J/100f:		Increasing
Most recent 5-year average classification ratio (j/100f/m):		64/100/40	
(Generally, these classifications have been: at <input checked="" type="checkbox"/> or above adequate <input type="checkbox"/> or well below adequate <input type="checkbox"/>)			
Proposed harvest rates (percent of pre-season estimate of each sex/age group): <input checked="" type="checkbox"/>			
	JCR Year		Proposed
Females ≥ 1 year old:	8.60%		10.20%
Males ≥ 1 year old:	17.20%		17.20%
Juveniles (< 1 year old):	1.50%		0.70%
Total:	8.93%		9.09%

Projected change in post-season population: (+ or -)0.70% (+ or -) 1.56%

Moose: Average age of male harvest:

Rationale provided for season proposals or management data that appear unusual?
Population tightly aligned on LT estimates. B:D alignment somewhat relaxed. Last LT at EOY 2003.

SEX AND AGE COUNT REPORT

SPECIES : Pronghorn

HERD UNIT : COOPER LAKE

YEAR : 2006

PREPARED BY : Rich Guenzel

PREHUNT CLASSIFICATION DATES : Sept. 5-6, 2006

Hunt Area	----- MALES -----			Females	Juveniles	Total
	Yearlings	Adults	Total			
43	228	263	491	988	685	2,164
Total Sample	228	263	491	988	685	2,164
Adequate Sample			448	902	625	1,976
Precision	@ 90 C.L.					

Juveniles / 100 Females : 69 ± 5
Total Males / 100 Females : 50 ± 4
Adult Males / 100 Females : 27
Yearlings / 100 Females : 23

2006 HUNTING SEASON

SPECIES : **Pronghorn**

HERD UNIT : **COOPER LAKE**

HUNT	AREA	TYPE	SEASON DATES	LIMITATIONS
43				
	1		Sept. 16-Oct.14	Limited quota; 400 licenses any antelope
	6		Sept. 16-Oct.14	Limited quota; 400 licenses doe or fawn
ARCHERY :				
43			Sept. 1-Sept.15	Refer to Section 3 of this Chapter

HARVEST REPORT

SPECIES **Pronghorn**

HERD UNIT : **COOPER LAKE**

YEAR : **2006**

PERIOD COVERED : **8/15/06-10/14/06**

Prepared By : **Rich Guenzel**

Hunt Area	License Type	L.Q. Licenses	No. Hunters	Ylg. Males	Adult Males	Females	Juveniles	Total	Percent Success	Days/Animal Taken
	Resident	0	130	0	91	32	0	123	94.6	2.8
43	Non-Resident	0	549	0	236	219	31	486	88.5	3.5
	Total	0	679	(739)*	327	251	31	609	89.7 (82.4)*	3.3
	Resident	0	130	0	91	32	0	123	94.6	2.8
Total	Non-Resident	0	549	0	236	219	31	486	88.5	3.5
	Total	0	679	(739)*	327	251	31	609	89.7 (82.4)*	3.3

* Active Licenses

2006 AGE STRUCTURE OF FIELD CHECKED ANIMALS

SPECIES : Pronghorn
 HERD UNIT : COOPER LAKE

PREPARED BY : Rich Guenzel

Hunt Area	Sex	Young	1+	2+	3+	4+	5+	6+	7+	Older	Unaged Adults *	Total
43	Male	5	2	2	6	0	0	0	0	0	4	19
	Female	1	0	3	4	0	0	0	0	0	1	9
Totals :	Male	5	2	2	6	0	0	0	0	0	4	19
	Female	1	0	3	4	0	0	0	0	0	1	9

* Unaged animals older than yearlings **Total Aged :** 28

**COOPER LAKE PRONGHORN
(A526)
Hunt Area 43
2007 Hunting Seasons**

Hunt Area	Type	Dates of Opens	Season Closes	Limitations
43	1	Sept. 15	Oct. 14	Limited Quota; 400 licenses, any antelope
	6	Sept. 15	Oct. 14	Limited Quota; 400 licenses, doe or fawn
<u>Archery</u> 43		Aug. 15	Sept 14	Refer to Section 3 of this Chapter

Changes for 2007

- Change the opening date for the rifle season to the third Saturday, from Sept 16 to Sept 15, and adjust the closing of the archery season
- Adjust opening date for archery to August 15 Statewide date..

Management Evaluation

The Cooper Lake Herd is estimated to be well above its objective. However, limited public access hinders efforts to increase harvest rates. Most hunting is limited to the Diamond Lake and Laramie River Hunter Management Areas. Drought and poor habitat conditions impact this herd. Habitat measurements on browse production and utilization in adjacent Medicine Bow Herd indicate that production was the second lowest measured since the shrub monitoring was started in 2001 although utilization was in acceptable limits (Appendix 1). The Cooper Lake Herd occurs within the Upper Platte Climatic Region (Appendix 2). Palmer Drought Severity Indices show that the population has endured drought conditions over the past several years. Precipitation at the start of the 2006 biological year was below normal. The 2006-2007 winter had periods of extreme cold and deep snow and may have caused increased winter mortality. However, spring was characterized by generally warmer weather than normal. The current conditions may be limiting the herd since a large portion receives very little hunting pressure. Without improved hunter access it remains difficult to address the objective by harvest. The current level of harvest pressure on the Hunter Management Areas appears to be near the threshold and success rates for doe and fawn hunters have been lower than in surrounding hunt areas. We feel we have saturated hunting on the HMAs. We have proposed no change in quotas as increasing licenses will likely not significantly increase harvest on these HMAs. Pronghorn get displaced to surrounding ranches with more limited hunting pressure.

Population

The 2006 postseason population was estimated at just under 6,150 pronghorn, which is well above the herd's objective of 3,000. We have not been able to maintain the herd at or below this objective through harvest. The 2007 posthunt population is expected to remain about at the same level as in 2006. The herd could decline with the combination of harvest, recent droughts, poorer range conditions, and potentially higher winter mortality in 2006-2007 due to more frequent periods of extreme cold, high winds, and crusted and drifted snow. Fences within Area 43 limit pronghorn movements to escape these effects. Observed herd ratios tend to be better than surrounding areas. We observed 50 bucks/100does/69 fawns in 2006. However, the fawn:doe ratio reached 80/100 in 2005. In the four years prior to 2006, buck:doe ratios ran in the 30s and low 40s/100 does. We have been concerned that our hunting pressure may be affecting buck availability and quality on the HMAs.

Harvest

We have been selling all our Area 43 Type 1 and Type 6 licenses in recent years due to the availability of access through HMAs. Most hunters (80%) are nonresidents. About 8% of license holders did not hunt in 2006. A total of 739 hunters harvested over 608 pronghorn in 2006 with a success rate of 82%. Success is often lower than surrounding herds, especially for doe and fawn hunters. We anticipate about 772 hunters will harvest 630 pronghorn at a rate of 82% in 2007.

PH526 - Cooper Lake
HA 43
Revised - 3/91

