

# 2006 JOB COMPLETION REPORT

SPECIES : Mountain Goat  
 HERD UNIT : BEARTOOTH  
 HERD UNIT # : 201  
 HUNT AREAS : 1, 514

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

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
<b>1. PREHUNT SEX AND AGE RATIO COUNT (per 100 females)</b>					
Juveniles	0	41	23	37	33
Males	0	0	0	0	0
Yearling Males	0	0	0	0	0
Mature Males	0	0	0	0	0
Total Sample Size	0	142	154	108	157
Adequate Sample Size	0	158	114	150	142

<b>2. HARVEST</b>					
Adult Males	11	9	8	9	10
Yearling Males	0	0	2	0	0
Total Males	11	9	10	9	10
Females	4	5	5	7	5
Juveniles	0	0	0	0	0
Totals	15	14	15	16	15

	#	%	#	%	#	%	#	%	#	%
<b>3. AGE STRUCTURE OF FIELD CHECKED ANIMALS</b>										
Juvenile Female	0		0		0		0		0	
Yearling Female	0		0		0		0		0	
Adult Female	4	27	5	36	5	33	7	44	5	33
Juvenile Male	0		0		0		0		0	
Yearling Male	0		2	14	2	13	0		0	
Adult Male	11	73	7	50	8	53	9	56	10	67
Total Sample Size	15		14		15		16		15	

<b>4. POSTHUNT SEX AND AGE RATIO COUNT (per 100 females)</b>					
Juveniles	27	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	79	0	0	0	0
Adequate Sample Size	119	0	0	0	0

	07/31/03	7/04	7/17/06
<b>5. POPULATION TRENDS</b>			
Trend Count Dates:			
Trend Count:	79	142	164
Herd Model Pop Est:	200	200	200
Line Trans Pop Est:	0	0	0

SPECIES : Mountain Goat

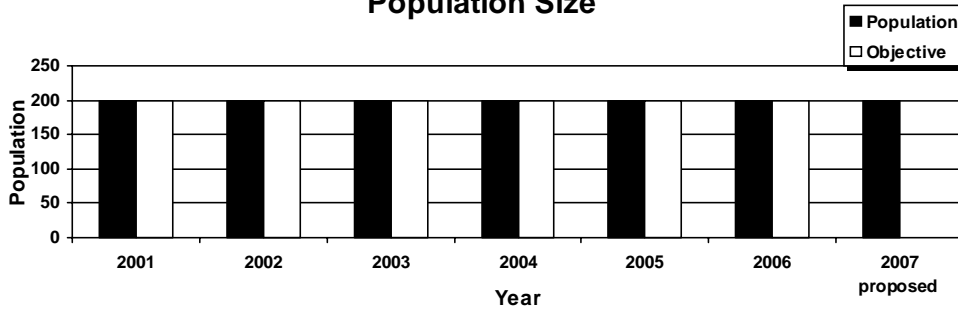
MODEL DATE :

HERD UNIT : BEARTOOTH

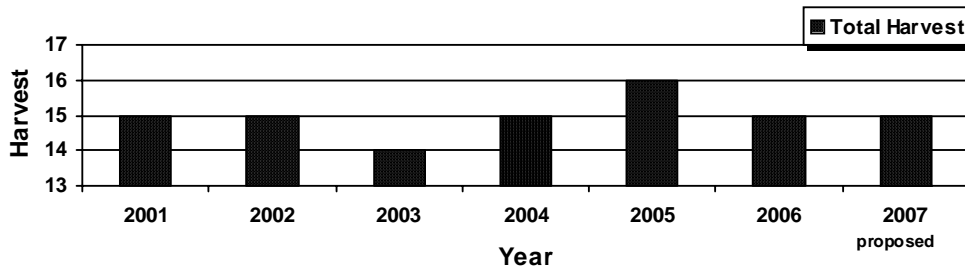
YEAR : 2006

	Averages 2001 - 2005	2006	Proposed 2007	Objective
Population (Est.)	200	200	200	200
Harvest	15	15	15	
Hunters	16	16	16	
Hunter Success	96.2%	93.8%	93.8%	
Active Licenses	16	16	16	
Active Licenses Success	96.2%	93.8%	93.8%	
Recreation Days	74	37	50	
Days/Animal	4.9	2.5	3.3	

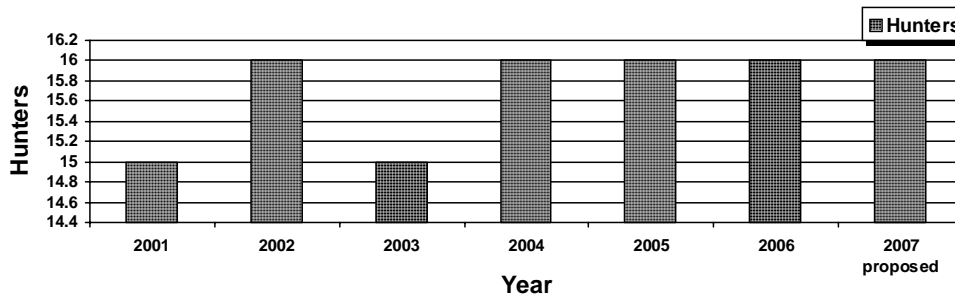
Population Size

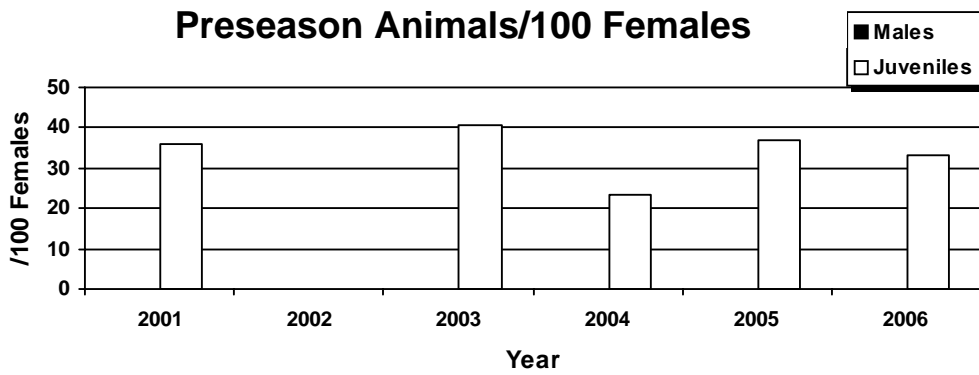
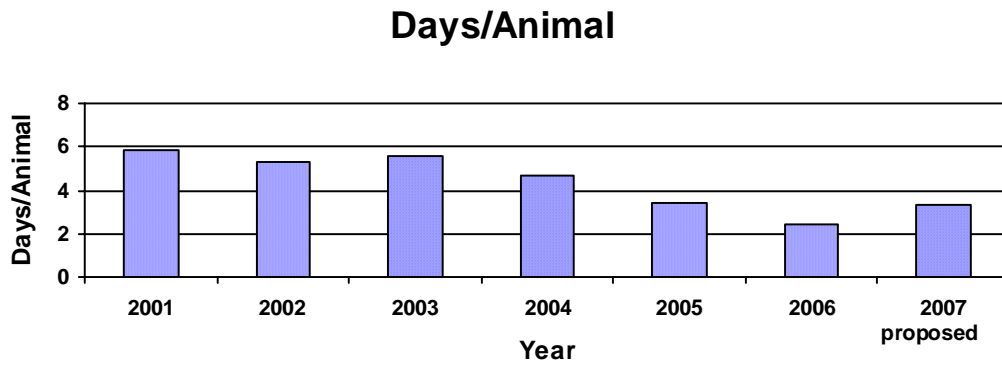
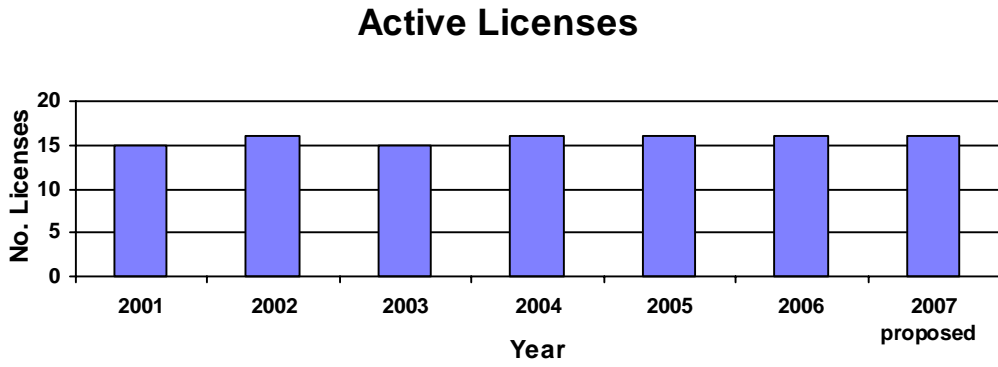
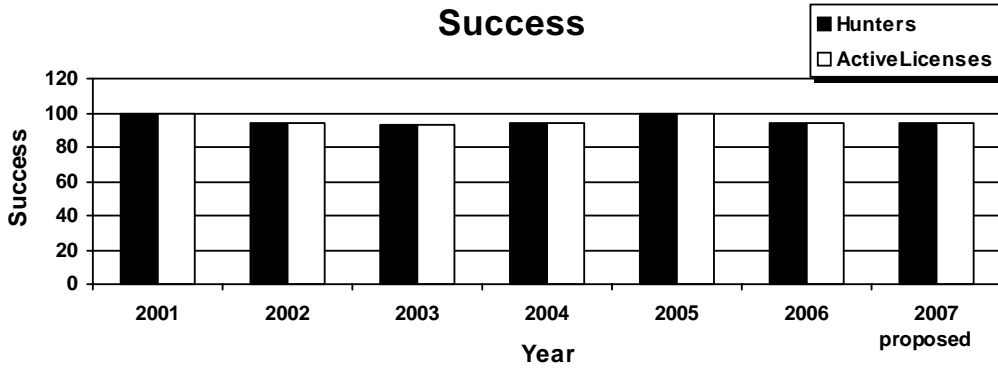


Harvest



# of Hunters





# SEX AND AGE COUNT REPORT

SPECIES : **Mountain Goat**

HERD UNIT : **BEARTOOTH**

YEAR : **2006**

PREPARED BY : **DOUG MCWHIRTER**

**PREHUNT CLASSIFICATION      DATES : July, 2006**

Hunt Area	----- MALES -----			Females	Juveniles	Total
	Yearlings	Adults	Total			
1	0	0	0	118	39	157
<b>Total Sample</b>	0	0	0	118	39	157
<b>Adequate Sample</b>			0	107	35	142
<b>Precision</b>	<b>@ 80 C.L.</b>					

**Juveniles / 100 Females : 33 ± 4**  
**Total Males / 100 Females : 0 ± 0**  
**Adult Males / 100 Females : 0**  
**Yearlings / 100 Females : 0**

# 2006 HUNTING SEASON

SPECIES : **Mountain Goat**

HERD UNIT :

**BEARTOOTH**

## HUNT

AREA	TYPE	SEASON DATES	LIMITATIONS
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1

1 Sept 1-Oct 31

Limited quota; 12 licenses any goat

## ARCHERY :

1 Aug 15-Aug 31

Refer to Section 4 of this Chapter

# HARVEST REPORT

SPECIES **Mountain Goat**

HERD UNIT : **BEARTOOTH**

YEAR : **2006**

PERIOD COVERED : **Aug 15-Oct 31**

Prepared By : **DOUG MCWHIRTER**

Hunt Area	License Type	L.Q. Licenses	No. Hunters		Ylg. Males	Adult Males	Females	Juveniles	Total	Percent Success	Days/Animal Taken
	<b>Resident</b>	9	9		0	7	2	0	9	100.0	1.8
<b>1</b>	<b>Non-Resident</b>	3	3		0	2	1	0	3	100.0	4.0
	<b>Total</b>	12	12	(12)*	0	9	3	0	12	100.0 ( 100.0 )*	2.3
	<b>Resident</b>	4	4		0	1	2	0	3	75.0	3.0
<b>514</b>	<b>Non-Resident</b>	0	0		0	0	0	0	0	0.0	0.0
	<b>Total</b>	4	4	(4)*	0	1	2	0	3	75.0 ( 75.0 )*	3.0
	<b>Resident</b>	13	13		0	8	4	0	12	92.3	2.1
<b>Total</b>	<b>Non-Resident</b>	3	3		0	2	1	0	3	100.0	4.0
	<b>Total</b>	16	16	(16)*	0	10	5	0	15	93.8 ( 93.8 )*	2.5

\* Active Licenses

## 2006 AGE STRUCTURE OF FIELD CHECKED ANIMALS

SPECIES : Mountain Goat  
 HERD UNIT : BEARTOOTH

PREPARED BY : DOUG MCWHIRTER

Hunt Area	Sex	Young	1+	2+	3+	4+	5+	6+	7+	Older	Unaged Adults *	Total
1	Male	0	0	1	2	2	3	0	1	0	0	9
	Female	0	0	2	0	0	0	1	0	0	0	3
514	Male	0	0	0	0	0	0	1	0	0	0	1
	Female	0	0	1	0	0	0	0	1	0	0	2
Totals :	Male	0	0	1	2	2	3	1	1	0	0	10
	Female	0	0	3	0	0	0	1	1	0	0	5

\* Unaged animals older than yearlings

Total Aged : 15

# TREND COUNT REPORT

YEAR : 2006

SPECIES : Mountain Goat

HERD UNIT : BEARTOOTH

METHOD : Helicopter/Ground

DATE : 7/17/06

CONDITIONS : Good Weather

OBSERVERS : McWhirter, Queen

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Hunt Area	Count Block	Flight H : M	Number Counted	Photo	Comments
1	0	2 : 30	157		Aerial Survey 118 adults, 39 kids
<b>Totals</b>		2 : 30	157		

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# 2007 PROPOSED HUNTING SEASON

SPECIES : Mountain Goat

HERD UNIT : BEARTOOTH

## HUNT

AREA	TYPE	SEASON DATES	LIMITATIONS
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1	1	Sept 1-Oct 31	Limited quota; 12 licenses any goat
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## ARCHERY :

1	Aug 15-Aug 31	Refer to Section 4 of this Chapter
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## SEASON JUSTIFICATION

Population estimates for the Beartooth Mountain Goat herd are difficult to produce. Pre-season aerial classification/trend counts are performed every other year, and pre-season classifications (aerial and/or ground) are performed every year. Sample sizes obtained in years when only ground surveys are performed are generally less than adequate for population estimation purposes, but do provide some insight into goat productivity. In addition, goat surveys only produce ratios of juveniles to adults, as differentiation of sexes is difficult, especially under aerial survey conditions. Collection of juvenile:100 adult ratios is common in the management of mountain goats, but makes population simulation modeling difficult.

Based on an evaluation of recent trend counts, productivity estimates, and composition of harvested animals, the Beartooth Mountain Goat Herd is currently estimated to be near 200 goats. Goat trend counts have varied considerably, but have generally stabilized around 150 goats. A westerly and southerly range expansion by goats has been documented during the last decade, and the boundary for Hunt Area 1 was expanded in 1996 to include all of the Sunlight Creek and Crandall Creek drainages.

Following a decrease in 2004, productivity in 2005 and 2006 returned to a level more commonly seen in recent years. The productivity decrease in 2004 was seen in yearling:adult ratios in 2005, as the yearling:adult ratio dropped from 24:100 in 2004 to 10:100 in 2005. No yearling classifications were obtained in 2006.

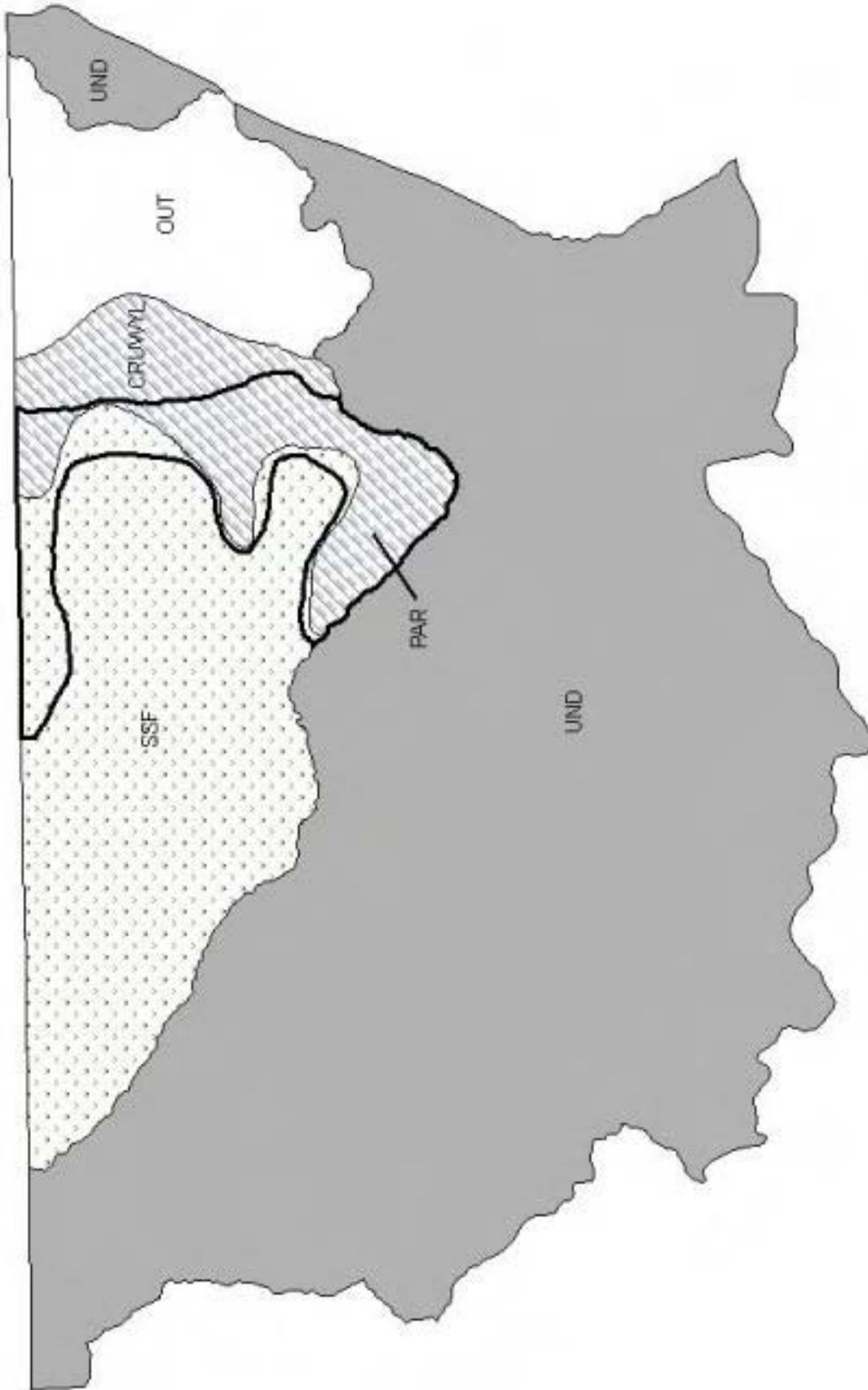
A total of 12 goats were harvested by 12 hunters in Wyoming in 2006, including 9 males and 3 females (100.0% success). Four licenses were issued in Montana for Hunt Area 514 in 2006, which is part of this goat herd. Information from these hunters is not available at this time. Hunter effort for Wyoming goat hunters in 2006 was 2.3 days per goat harvested, which is slightly less than average for goat hunters in this area, as effort usually ranges from 3 to 5 days per goat and the long term (1970-2005) average is 4.2 days/goat harvested.

Information pamphlets have been sent each year to hunters informing them on the methods for determining the sex of goats, and encouraging them to kill male goats (billies). Various studies have shown that goat populations are sensitive to female harvest, and therefore accurate harvest information is vital to proper management of goat populations. The 3 nannies killed in 2006 represent 25% of the total harvest for Hunt Area 1, which is still within the accepted criteria for mountain goat harvest.

This population appears to be fairly stable and is currently estimated to be near the population objective of 200 goats. This assessment is further supported by harvest parameters (average age, hunter success, hunter effort) and the fact that nanny harvest is averaging approximately 30% of the total harvest. Although harvest parameters suggest a healthy population, average age has declined and recent trend count information does not indicate a recent substantial population increase. Therefore, no changes in season recommendations are proposed for 2007.

Table 1. Management parameters for the Beartooth Mountain Goat Herd (Wyoming portion only), 1969-2006.

	1969-1979	1980-1992	1993-2005	2006
Permits	4	8	12	12
Harvest	3.4	7.3	11.7	12
Success	84.1%	95.1%	98.1%	100.0%
Effort	5.4 Days	3.7 Days	4.1 Days	2.3 Days
Avg Age	-	-	4.8 years	4.5 Years
Horn Length	8.6 inches	8.8 inches	8.6 inches	8.9 inches
Horn Bases	-	-	4.6 inches	5.1 inches
% Nannies	23.5%	32.9%	29.9%	25.0%
# Goats Seen	9.3	18.3	28.2	11.0
Trend Counts	19.0	104.7	130.6	157



MG201 - Beartooth  
HA 1  
Revised 10/02