

2011 - JCR Evaluation Form

SPECIES: Bighorn Sheep

PERIOD: 6/1/2011 - 5/31/2012

HERD: BS516 - DOUGLAS CREEK

HUNT AREAS: 18

PREPARED BY: LEE KNOX

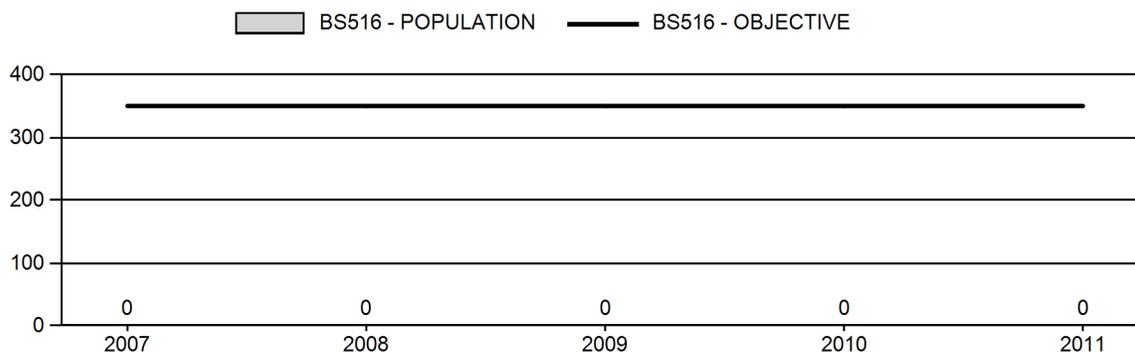
	2006 - 2010 Average	2011	2012 Proposed
Population:	0	N/A	N/A
Harvest:	0	0	2
Hunters:	0	0	2
Hunter Success:	0%	0%	100 %
Active Licenses:	0	0	2
Active License Percent:	0%	0%	100 %
Recreation Days:	1	0	5
Days Per Animal:	0	0	2.5
Males per 100 Females	28	18	
Juveniles per 100 Females	23	36	

Population Objective:	350
Management Strategy:	Special
Percent population is above (+) or below (-) objective:	N/A%
Number of years population has been + or - objective in recent trend:	11
Model Date:	02/28/2012

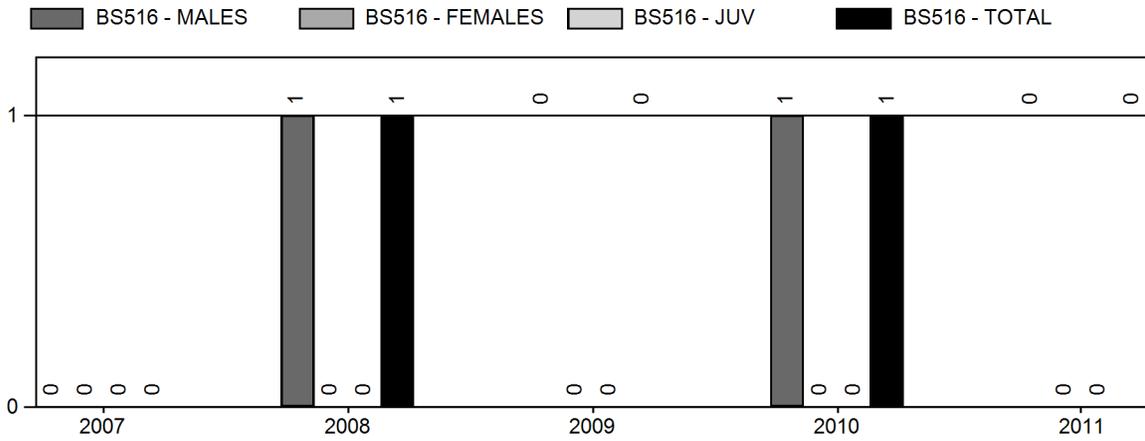
Proposed harvest rates (percent of pre-season estimate for each sex/age group):

	<u>JCR Year</u>	<u>Proposed</u>
Females \geq 1 year old:	0%	0%
Males \geq 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%
Total:	0%	0%
Proposed change in post-season population:	0%	0%

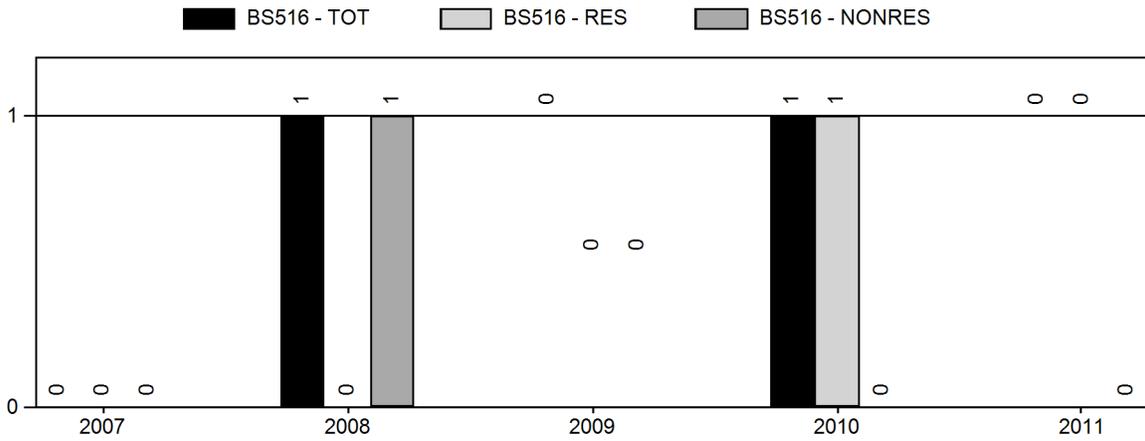
Population Size - Postseason



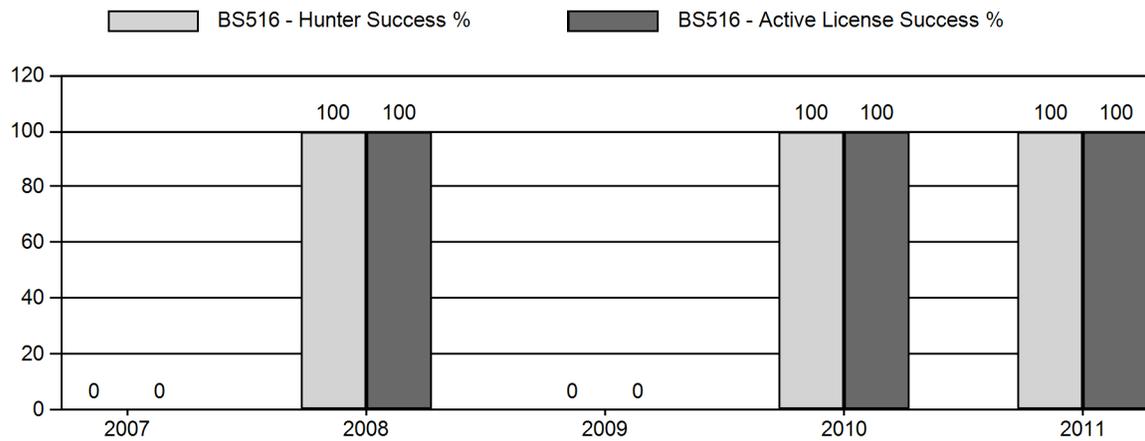
Harvest



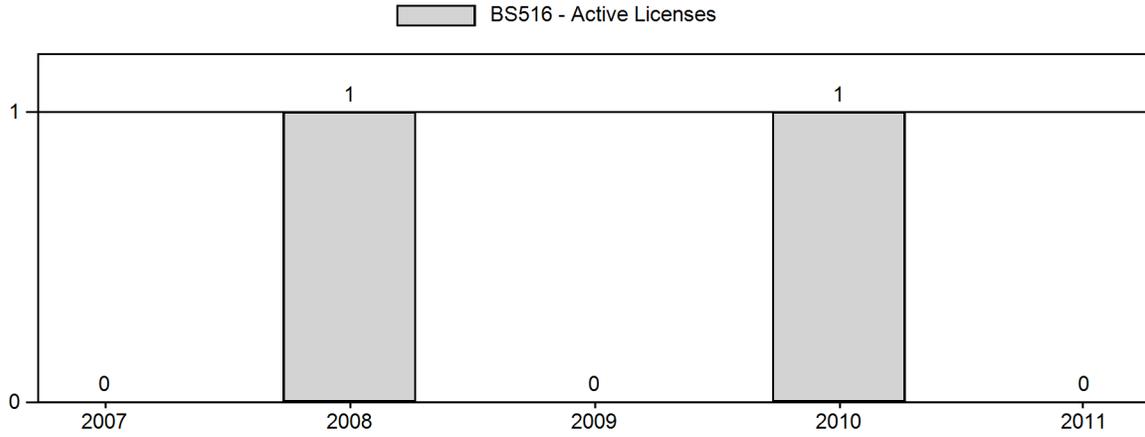
Number of Hunters



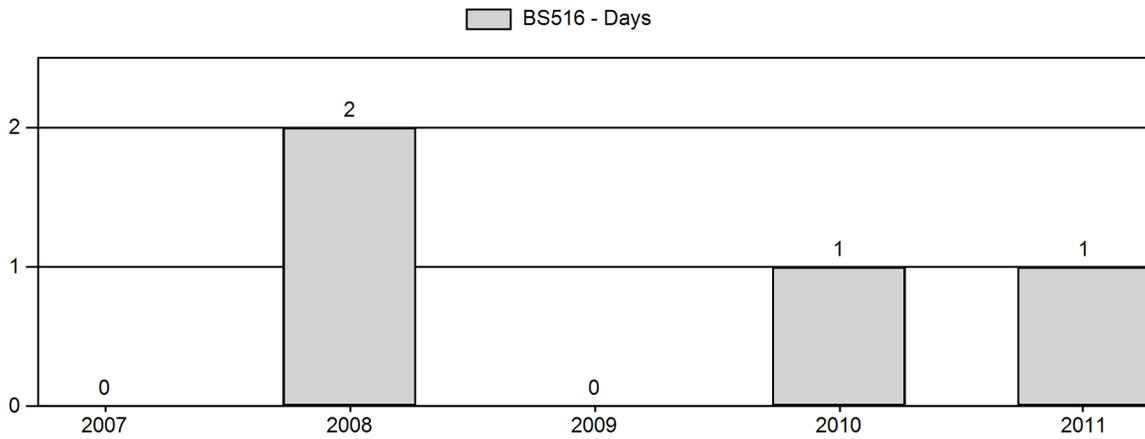
Harvest Success



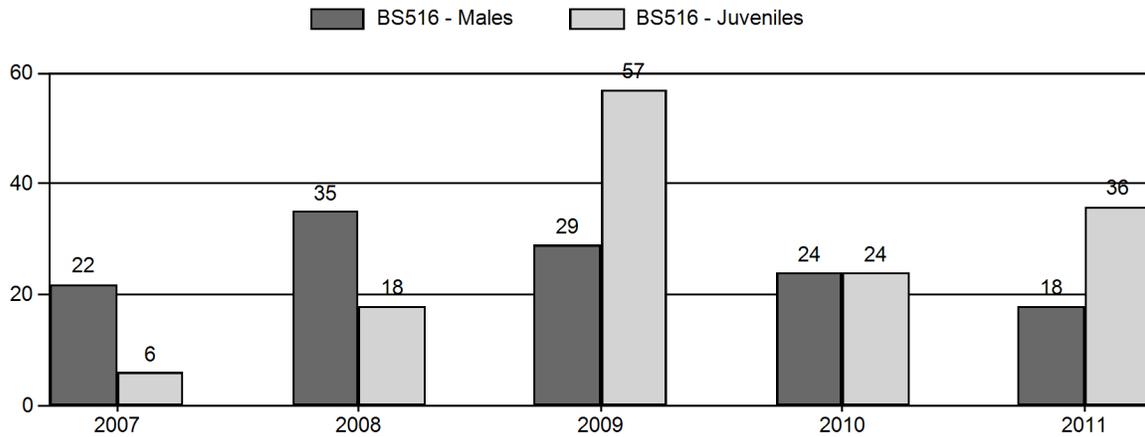
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2007 - 2011 Postseason Classification Summary

for Bighorn Sheep Herd BS516 - DOUGLAS CREEK

Year	Post Pop	MALES				FEMALES		JUVENILES		Tot CIs	Cls Obj	Males to 100 Females				Young to		
		Ylg	Adult	Total	%	Total	%	Total	%			YIng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2007	0	1	3	4	17%	18	78%	1	4%	23	0	6	17	22	±0	6	±0	5
2008	0	1	5	6	23%	17	65%	3	12%	26	0	6	29	35	±0	18	±0	13
2009	0	0	4	4	15%	14	54%	8	31%	26	92	0	29	29	±0	57	±0	44
2010	0	1	3	4	16%	17	68%	4	16%	25	74	6	18	24	±0	24	±0	19
2011	0	0	4	4	12%	22	65%	8	24%	34	0	0	18	18	±0	36	±0	31

Area	Type	Active Lic/ Htrs	Ram	Ewe	Lamb	Total	Success	Days/ Harvest	Days	Licenses Sold
2008										
18 DOUGLAS CREEK										
	Type 1	1	1	0	0	1	100%	2	2	0
Pooled Total		1 (1)*	1	0	0	1	100% (100%)*	2	2	
Pooled Resident		0	0	0	0	0	0	0	0	
Pooled Nonresident		1	1	0	0	1	100%	2	2	
2008 Hunt Area Total		1 (1)*	1	0	0	1	100% (100%)*	2	2	0
2008 Herd Total		1 (1)*	1	0	0	1	100% (100%)*	2	2	0
2010										
18 DOUGLAS CREEK										
	Type 1	1	1	0	0	1	100%	1	1	1
Pooled Total		1 (1)*	1	0	0	1	100% (100%)*	1	1	
Pooled Resident		1	1	0	0	1	100%	1	1	
Pooled Nonresident		0	0	0	0	0	0	0	0	
2010 Hunt Area Total		1 (1)*	1	0	0	1	100% (100%)*	1	1	1
2010 Herd Total		1 (1)*	1	0	0	1	100% (100%)*	1	1	1

**DOUGLAS CREEK BIGHORN SHEEP
(BS516)
Hunt Area 18
2012 Hunting Season**

Hunt Area	Type	Date of Seasons		Limitations
		Opens	Closes	
18				CLOSED
18/21	1	Sept. 1	Oct. 31	Limited Quota, 2 licenses; any ram. 1 license will be issued to a resident and 1 license will be issued to a nonresident.
18,21 Archery		Aug. 15	Aug. 31	Refer to Section 3 of this Chapter

SUMMARY OF CHANGES BY LICENSE NUMBER

Area	Type	Change from 2010
18	1	Limited Quota, 2 licenses; any ram
Herd Totals	1	+2

Changes for 2012

- The season will be open with licenses valid in Area 18 and 21.
- Only one nonresident and one resident will be drawn for these licenses
- Licenses will be valid for any ram

Management Evaluation

The Douglas Creek Herd Unit is under special management guidelines which targets for a mean age of harvested rams to be between 6-and 8 years old. We have taken this direction to provide trophy opportunity to the public and allow this herd to grow. Area 18 was closed from 2004 through 2007 and then again in 2009 and 2011 because this population has remained well-below desired levels due to low lamb recruitment. We will again open Area 18 with Area 21 of the Encampment river Herd to provide some limited opportunity for one nonresident and one resident to hunt a bighorn while we still have some sheep left in these populations.

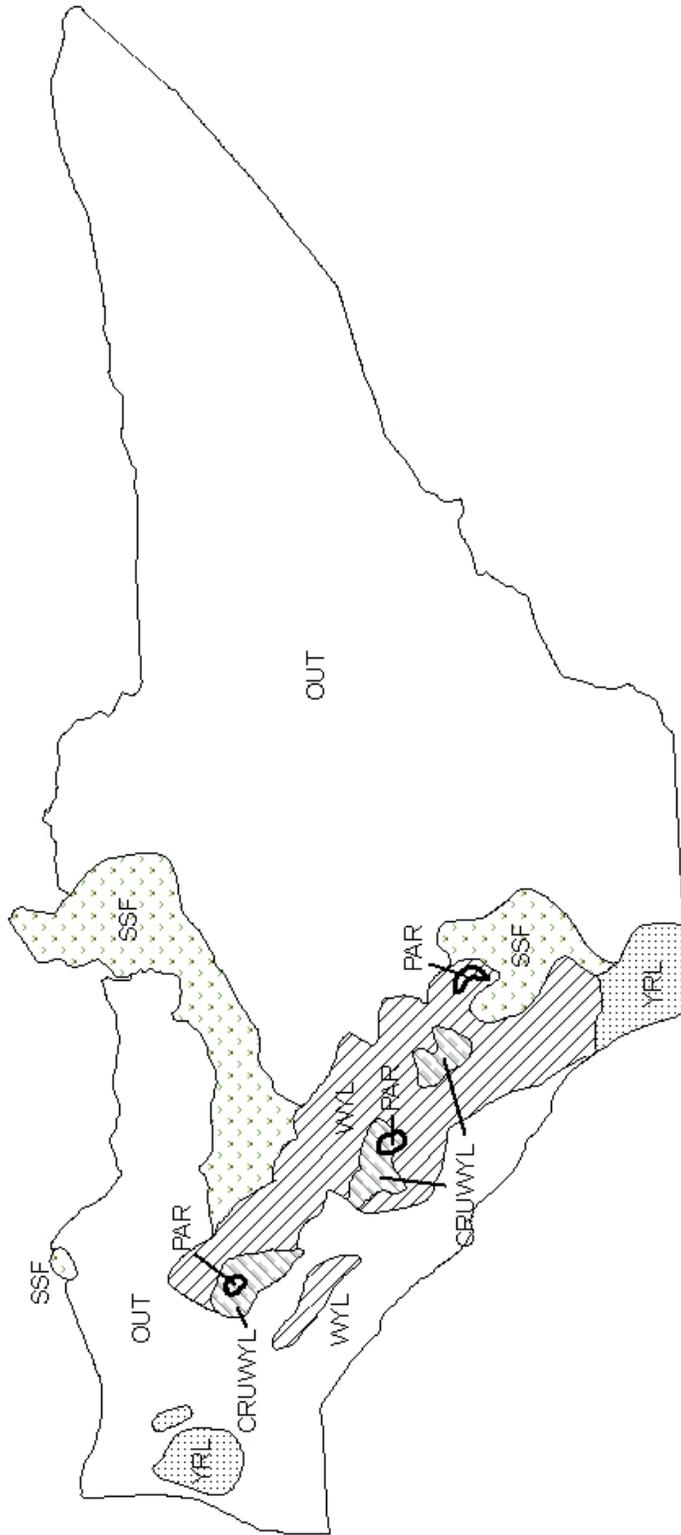
Population

We have very little data on this population. The general public provides a few reports during the summer and hunting seasons. Our field personnel make some effort to document the status of

segments of the herd during other big game surveys and an annual winter ground survey. Data are not adequate for developing a reasonable simulation model. Our observation data consistently document low lamb survival post-weaning. Poor habitat conditions, the lack of well-defined seasonal migrations, and perhaps lingering effects of Pasteurellosis or some other disease may be stagnating this population. We are unable to generate the effort needed to reliably estimate the population size of this sheep herd. Herd numbers are slightly up from 2010 but overall continue to stay depressed. During 2011 fall classifications personnel accounted for 34 different sheep. These included 4 rams, 22 ewes and 8 lambs. This is an increase from the previous year by 5 ewes and 4 lambs. In the 2011-2012 winter helicopter surveys during the Platte Valley Deer Sightability Study, personnel observed a similar number of sheep to that observed during deer and elk classification flights.

Harvest

The combined Areas 18, 21 seasons harvested 1 ram in Area 18 in 2010. The season was closed in 2011.



BHS516 - Douglas Creek
 HA 18
 Revised 7/02

2011 - JCR Evaluation Form

SPECIES: Bighorn Sheep

PERIOD: 6/1/2011 - 5/31/2012

HERD: BS517 - LARAMIE PEAK

HUNT AREAS: 19

PREPARED BY: MARTIN HICKS

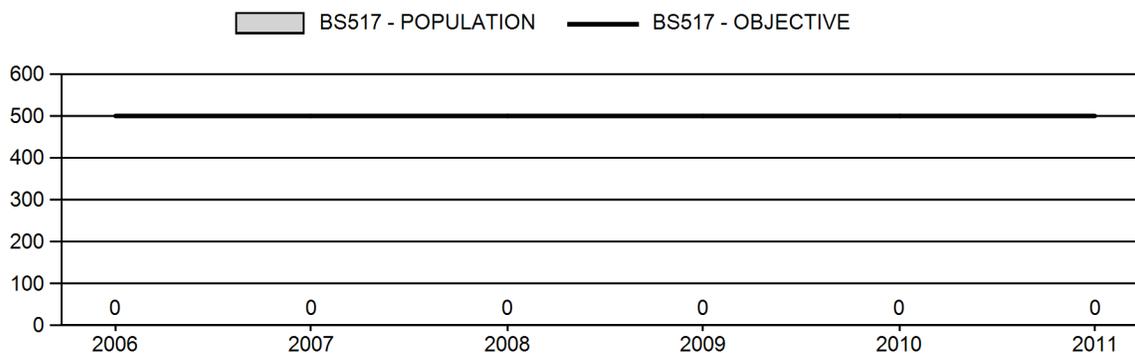
	2006 - 2010 Average	2011	2012 Proposed
Population:	0	N/A	N/A
Harvest:	6	6	8
Hunters:	7	7	8
Hunter Success:	86%	86%	100 %
Active Licenses:	7	7	8
Active License Percent:	86%	86%	100 %
Recreation Days:	66	66	66
Days Per Animal:	11	11	8.2
Males per 100 Females	48	49	
Juveniles per 100 Females	32	33	

Population Objective:	500
Management Strategy:	Special
Percent population is above (+) or below (-) objective:	N/A%
Number of years population has been + or - objective in recent trend:	0
Model Date:	None

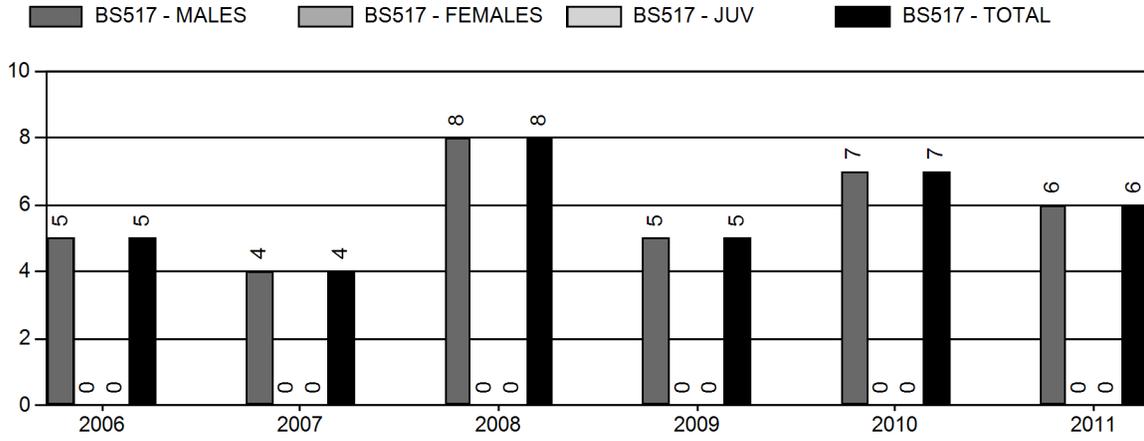
Proposed harvest rates (percent of pre-season estimate for each sex/age group):

	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	NA%	NA%
Males ≥ 1 year old:	NA%	NA%
Juveniles (< 1 year old):	NA%	NA%
Total:	NA%	NA%
Proposed change in post-season population:	NA%	NA%

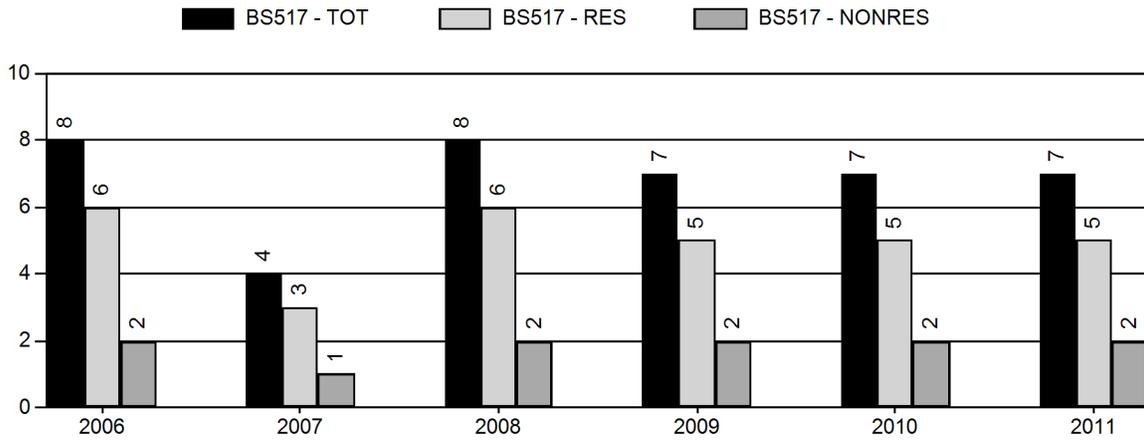
Population Size - Postseason



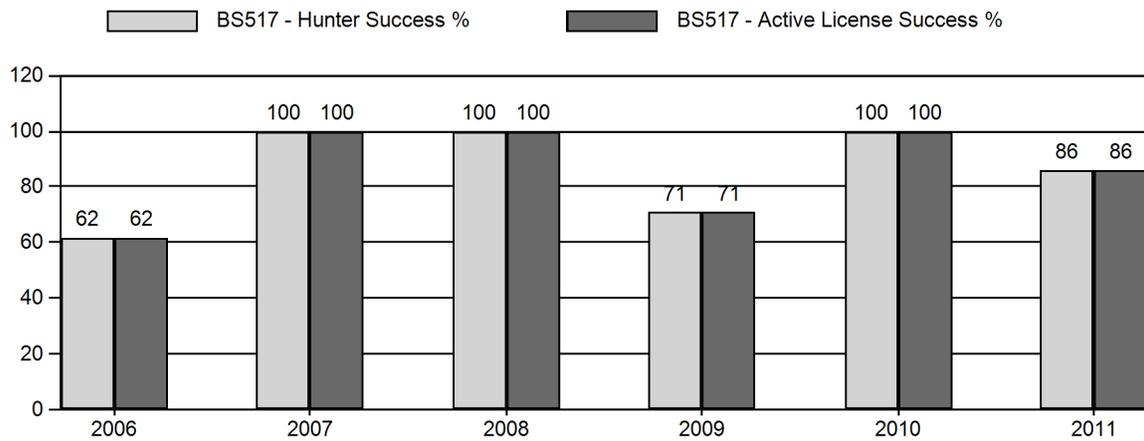
Harvest



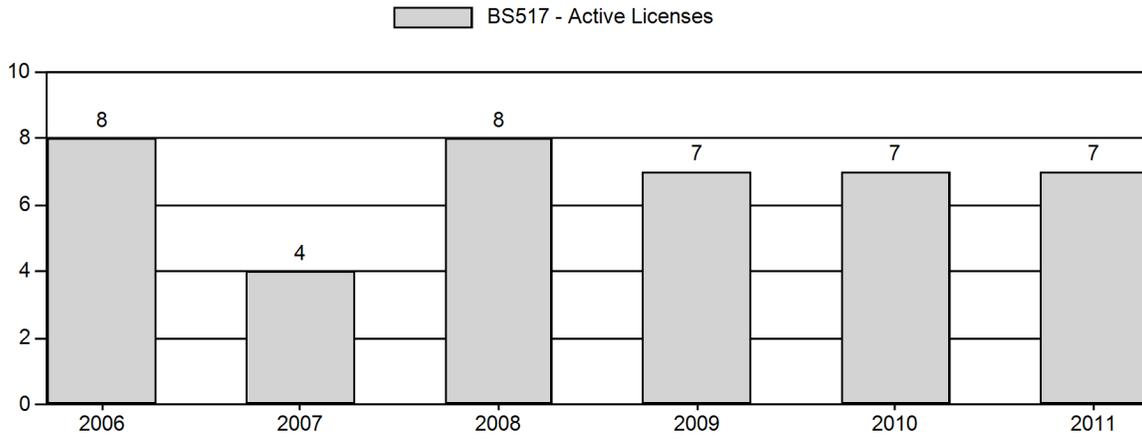
Number of Hunters



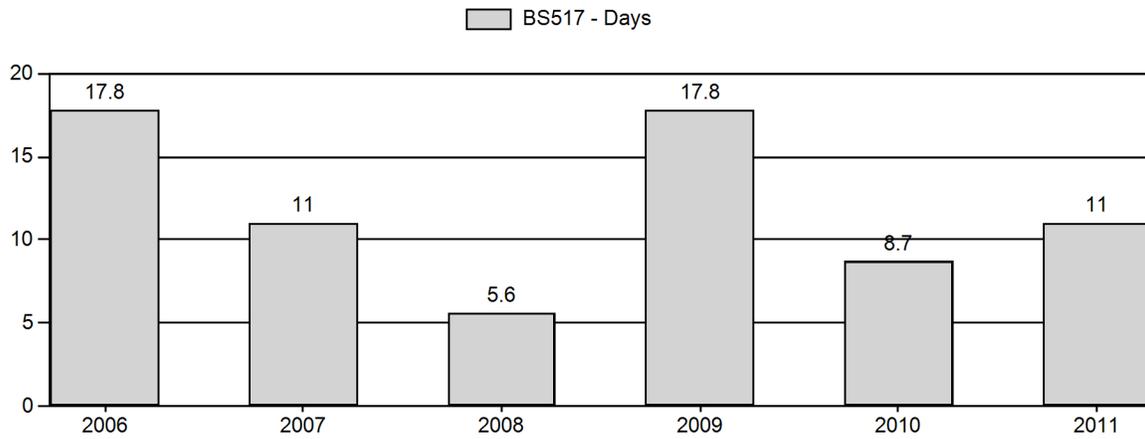
Harvest Success



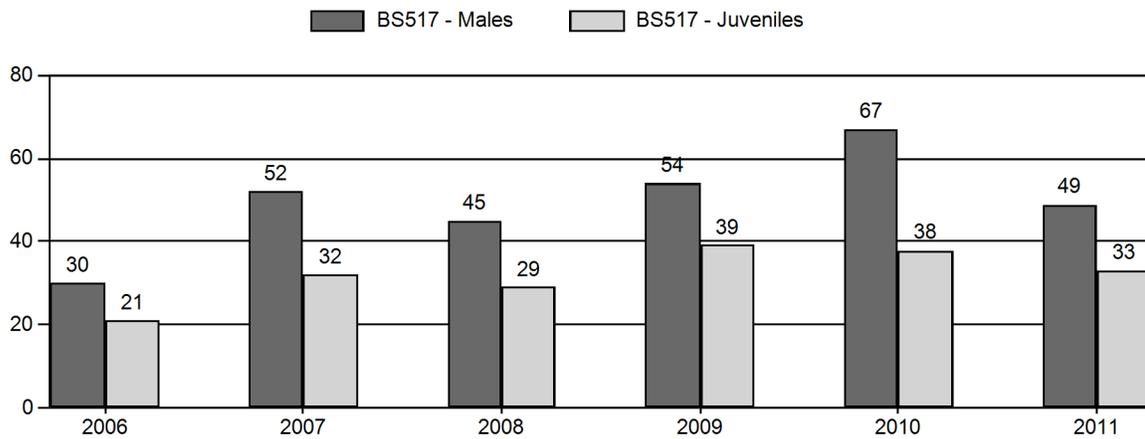
Active Licenses



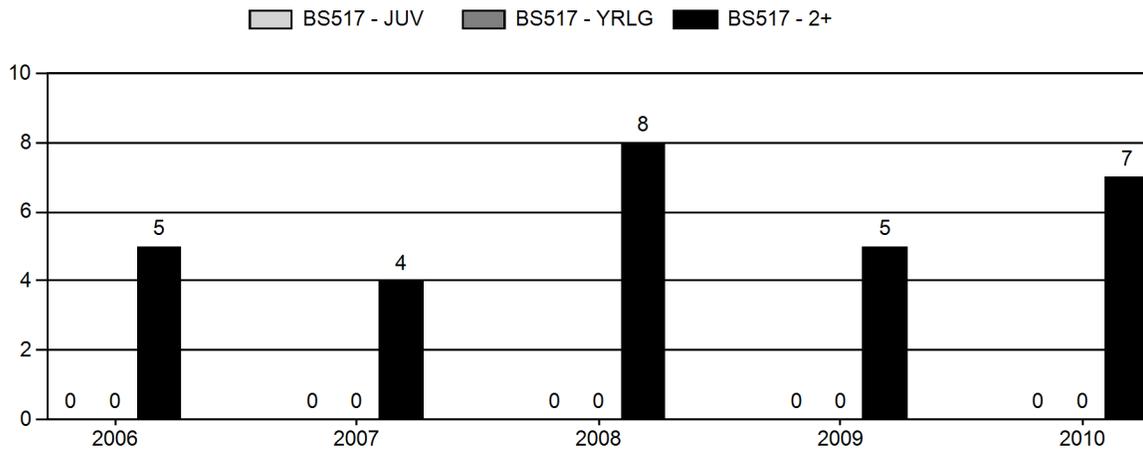
Days per Animal Harvested



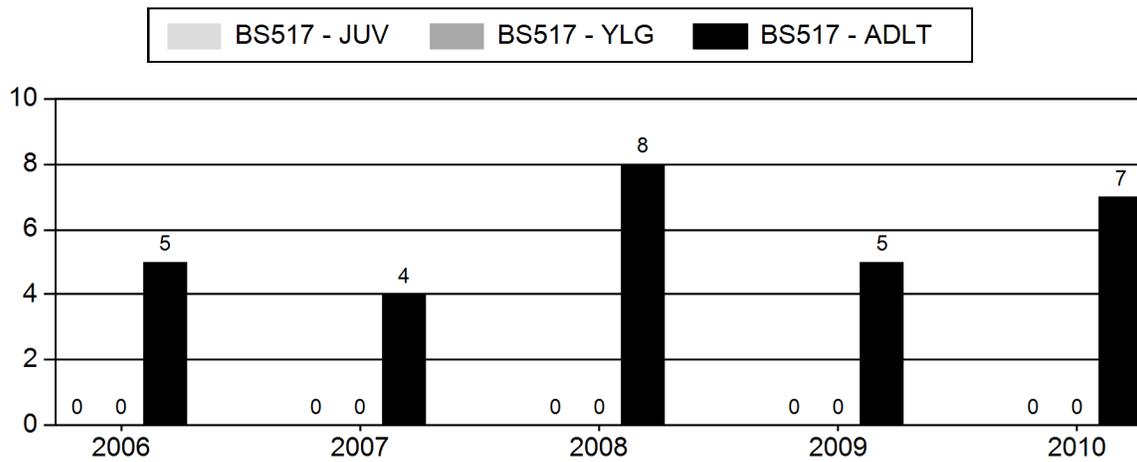
Postseason Animals per 100 Females



Age Structure of Field Checked Males



Age Structure Data (Field and Laboratory) - Male



2006 - 2011 Postseason Classification Summary

for Bighorn Sheep Herd BS517 - LARAMIE PEAK

Year	Post Pop	MALES				FEMALES		JUVENILES		Tot Cls	Cls Obj	Males to 100 Females				Young to		
		Ylg	Adult	Total	%	Total	%	Total	%			Ylng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2006	0	7	9	16	20%	53	66%	11	14%	80	0	13	17	30	± 9	21	± 7	16
2007	0	2	19	21	28%	40	54%	13	18%	74	0	5	48	52	± 0	32	± 0	21
2008	0	3	26	29	26%	65	58%	19	17%	113	0	5	40	45	± 0	29	± 0	20
2009	0	3	33	36	28%	67	52%	26	20%	129	0	4	49	54	± 0	39	± 0	25
2010	0	3	23	26	32%	39	49%	15	19%	80	0	8	59	67	± 0	38	± 0	23
2011	0	4	20	24	27%	49	55%	16	18%	89	0	8	41	49	± 0	33	± 0	22

2011 HUNTING SEASONS

BS517 - LARAMIE PEAK

<u>Hunt Area</u>	<u>Add'l Hunt Areas</u>	<u>Type</u>	<u>Quota</u>	<u>Season Dates</u>	<u>Limitations</u>
19		ARCH		08/15 - 08/31	Refer to Section 3 of this Chapter
19		Type 1	8	09/01 - 10/31	Any

Table 1. BHS 517 Harvest Data, 2011.

Area	Type	Active Lic/Htrs	Ram	Ewe	Lamb	Total	Success	Days/Harv	Days	Licenses Sold	
2011											
19 LARAMIE PEAK											
	Type 1	7	0	6	0	0	6	85.70%	11	66	8
	Pooled Total	7 (7)*	0	6	0	0	6	85.70% (85.7%)*	11	66	
	Pooled Resident	5	0	4	0	0	4	80%	13.5	54	
	Pooled Nonresident	2	0	2	0	0	2	100%	6	12	
2011 Hunt Area Total											
		7 (7)*	0	6	0	0	6	85.70% (85.7%)*	11	66	8
2011 Herd Total											
		7 (7)*	0	6	0	0	6	85.70% (85.7%)*	11	66	8

* Active Licenses

2006 - 2011 Harvest Age Structure

for Bighorn Sheep Herd BS517 - LARAMIE PEAK

Year	Males										Females										Herd
	Juv	1	% 1 *	2	3 ^	% 3 **	Total Aged ++	Not Aged +++	Unk	Total Chkd	Juv	1	% 1 *	2	3 ^	% 3 **	Total Aged ++	Not Aged +++	Unk	Total Chkd	Total
2006	0	0	0%	0	5	100%	5	0	0	5	0	0	0%	0	0	0%	0	0	0	0	5
2007	0	0	0%	0	4	100%	4	0	0	4	0	0	0%	0	0	0%	0	0	0	0	4
2008	0	0	0%	0	8	100%	8	0	0	8	0	0	0%	0	0	0%	0	0	0	0	8
2009	0	0	0%	0	5	100%	5	0	0	5	0	0	0%	0	0	0%	0	0	0	0	5
2010	0	0	0%	0	7	100%	7	0	0	7	0	0	0%	0	0	0%	0	0	0	0	7

* Percent of aged animals (including unaged adults but excluding juveniles) 1 1/2 years old

^ Number of animals three years old and older. Animals aged older than three (excluding unaged adults) are lumped into this three plus category

** Percent of aged animals (not including juveniles or unaged adults) three years old or older

++ includes juveniles

+++ Unaged adults - unaged animals older than yearlings

LARAMIE PEAK BIGHORN SHEEP (BHS517)
HUNT AREA 19
2012 PROPOSED HUNTING SEASONS

HUNT AREA	TYPE	OPENS	CLOSES	LIMITATIONS
19	1	SEPT. 1	OCT. 31	L.Q.; 8 licenses any ram
ARCHERY				
19		AUG. 15	AUG. 31	Refer to Section 3 of this Chapter

CHANGES FOR 2012

There are no changes for the 2012 Season, however there will be one carry over license from the 2011 season for a total of 9 Type 1 licenses.

Management Evaluation

Population: The population objective for the Laramie Peak Bighorn Sheep Herd Unit is 500 wild sheep. The population estimate of 250 bighorn sheep is based on pre- and post-season herd composition surveys (conducted from the ground and air).

Lamb recruitment continues to improve compared to ratios observed prior to the 2007 transplant. In 2011 the lamb ratio of 33 lambs:100 ewes was slightly higher than the five-year average of 31 lambs:100 ewes. There have been no rams harvested from the Montana augmentation (rams had ear tags in both ears, marking the animals). There have also been no documented reports of pneumonia outbreaks.

At the time of this report (July 2012), there has been over 106,000 acres burned within the Laramie Range (Cow Camp Fire=8,500 acres, Russell Camp Fire=5,400 acres, Arapahoe Fire=93,000 acres). A majority falls within occupied bighorn sheep habitat, particularly the North Laramie/Bearhead Mt Sub herds. The Arapahoe Fire is only 30% contained, and has burned extremely hot most likely sterilizing the soil on south and east slopes. Post-fire rehabilitation remains unknown at this time, but it is expected that there will be noxious weed outbreaks (e.g. cheatgrass, *Bromus tectorum* and Canada thistle, *Cirsium arvense*) throughout the majority of the burned area. Based on Sawyer's (2009) study of mountain sheep selection patterns within the Laramie Range, it is expected that these fires will improve overall habitat suitability for wild sheep.

The rest of the herd unit is experiencing above average drought conditions and will most likely see a decrease in lamb survival.

2011 Season: In 2011, only 6 of the 8 sheep were harvested. One hunter was looking for a ten plus year-old ram and passed up on numerous younger rams. The second hunter received a carryover license for medical reasons and therefore will hunt in 2012, putting 9 licensed hunters in the field.

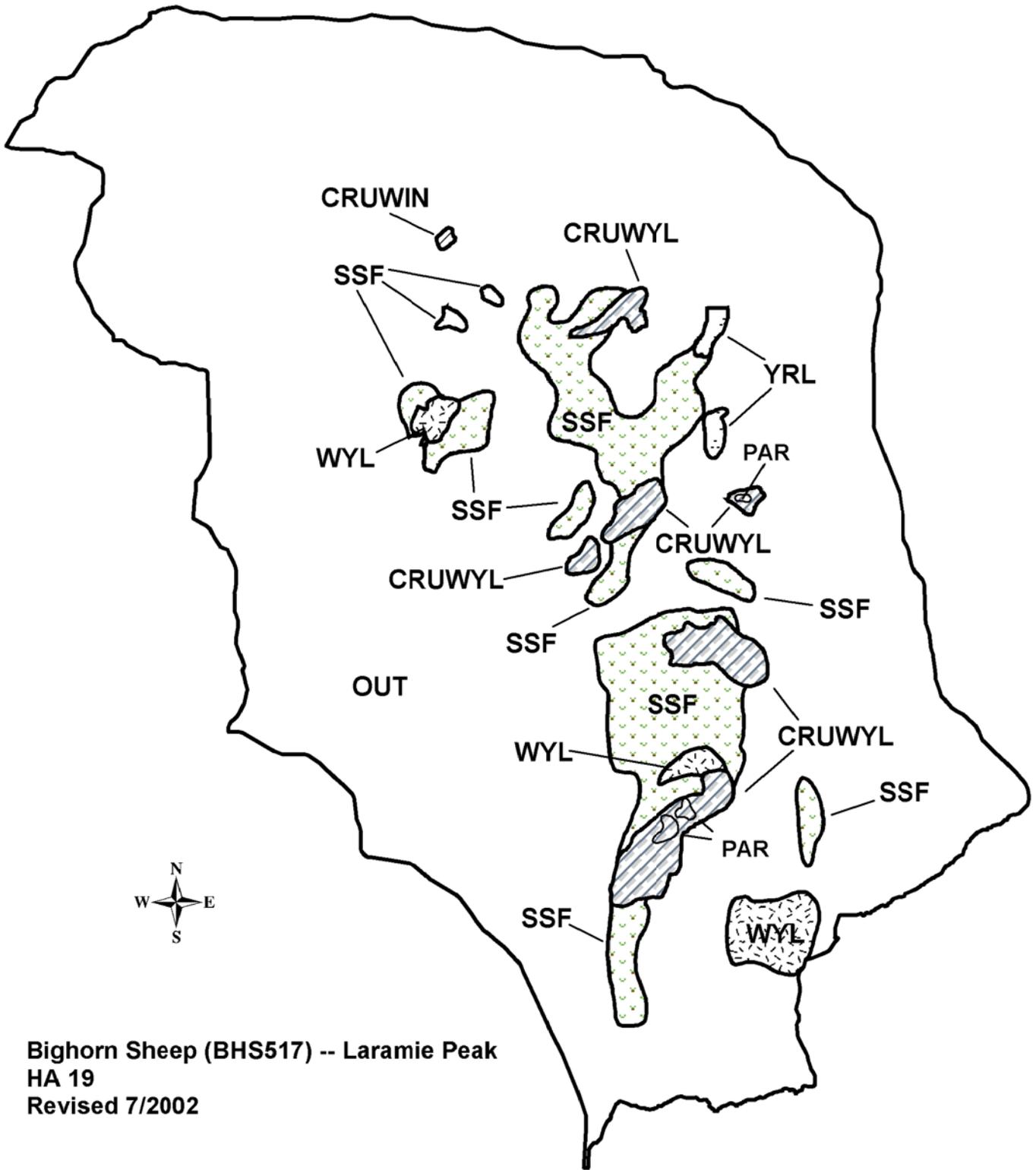
Harvest in 2011 was spread out over the herd unit. There were three rams harvested in the North Laramie sub herd, one ram harvested in the Sybille Canyon sub herd, and two rams harvested in the Duck Creek sub herd.

The average age of the rams harvested in 2011 was 6.6 years, which was lower than the five-year average of 8.5 years. Based on conversations with hunters they appeared to be not as selective this year due to time constraints and other hunting obligations (one hunter also drew a moose tag).

2012 Season: Based on 2011 ram ratios (49 rams:100 ewes), it is expected that hunters should have a good chance of finding a mature ram to harvest in 2012. However, given extreme drought conditions and fire activity, sheep distribution could negatively affect hunters' ability to find sheep in traditional locations. Mature rams that are historically located within the North Laramie drainage will be displaced from Sellers Mountain downstream to Indian Head Rock (approximately 17 miles of river) if the area does not receive summer/fall precipitation. Other subherds are experiencing above average drought conditions and will most likely affect lamb survival and movement patterns.

Literature Cited:

Sawyer, H., R. Nielson, and M. Hicks. 2009. Distribution and habitat selection patterns of mountain sheep in the Laramie Range. Western Ecosystems Technology, Inc. Cheyenne, Wyoming.



Bighorn Sheep (BHS517) -- Laramie Peak
 HA 19
 Revised 7/2002

2011 - JCR Evaluation Form

SPECIES: Bighorn Sheep

PERIOD: 6/1/2011 - 5/31/2012

HERD: BS519 - ENCAMPMENT RIVER

HUNT AREAS: 21

PREPARED BY: WILL SCHULTZ

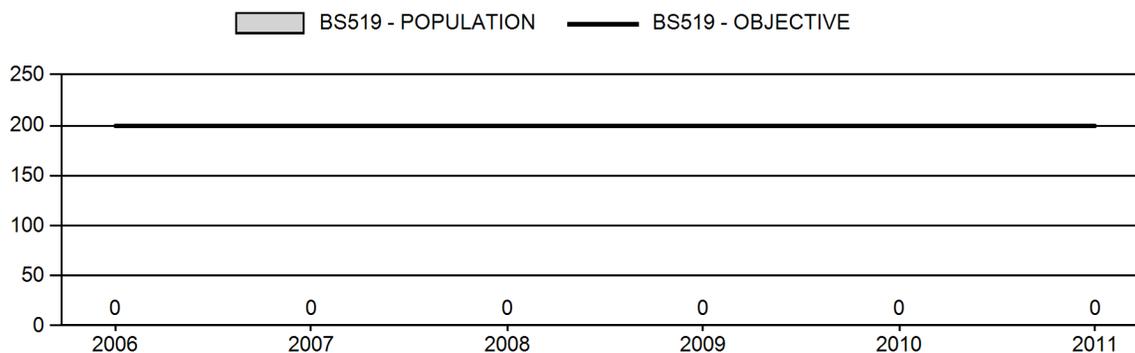
	2006 - 2010 Average	2011	2012 Proposed
Population:	0	N/A	N/A
Harvest:	0	0	2
Hunters:	0	0	2
Hunter Success:	0%	0%	100%
Active Licenses:	0	0	2
Active License Percent:	0%	0%	100%
Recreation Days:	1	0	2
Days Per Animal:	0	0	1
Males per 100 Females	52	83	
Juveniles per 100 Females	23	25	

Population Objective:	200
Management Strategy:	Special
Percent population is above (+) or below (-) objective:	N/A%
Number of years population has been + or - objective in recent trend:	25
Model Date:	None

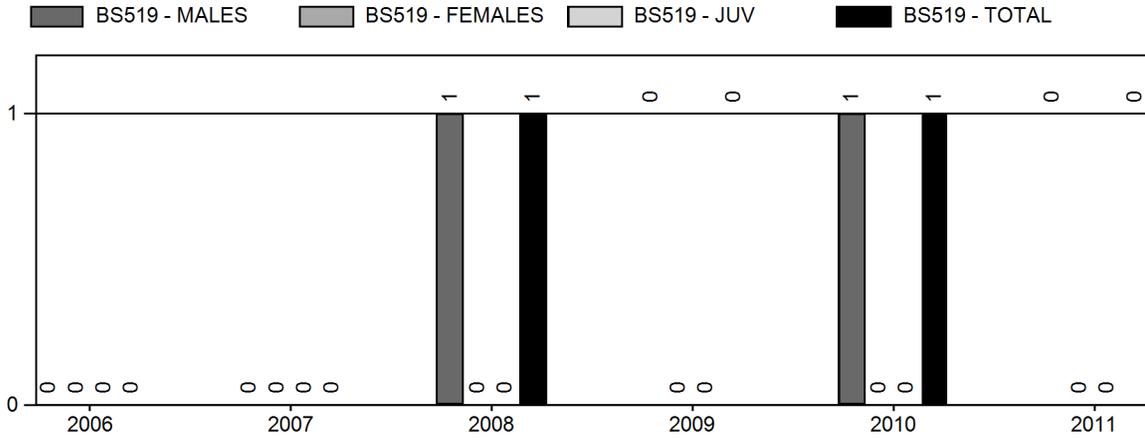
Proposed harvest rates (percent of pre-season estimate for each sex/age group):

	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	NA%	NA%
Males ≥ 1 year old:	NA%	NA%
Juveniles (< 1 year old):	NA%	NA%
Total:	NA%	NA%
Proposed change in post-season population:	NA%	NA%

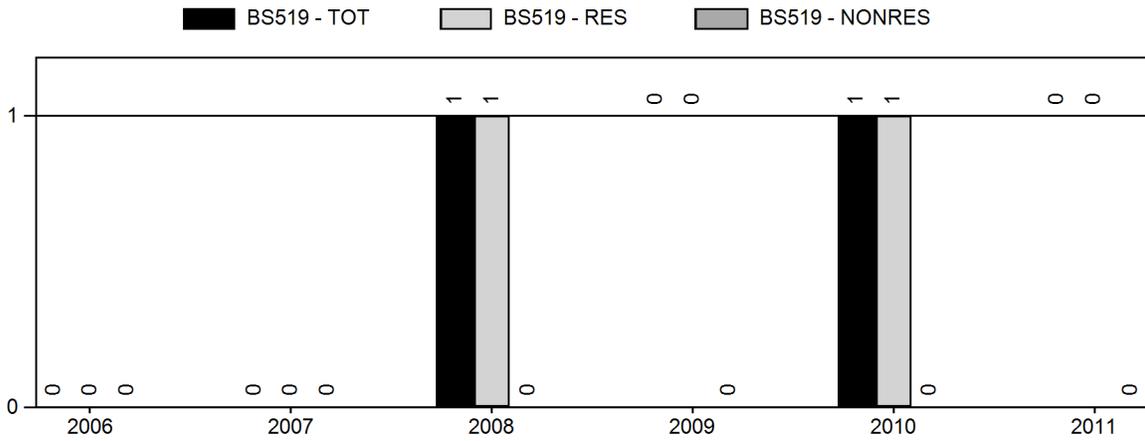
Population Size - Postseason



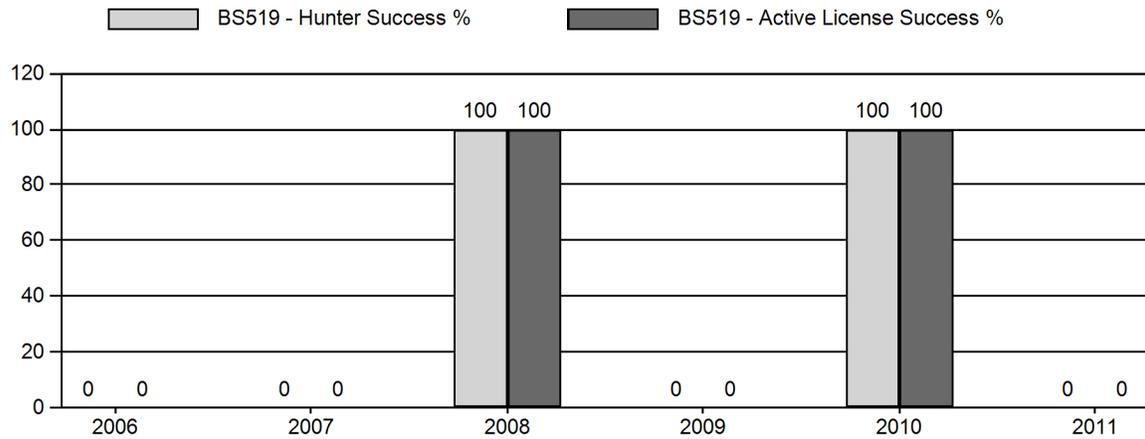
Harvest



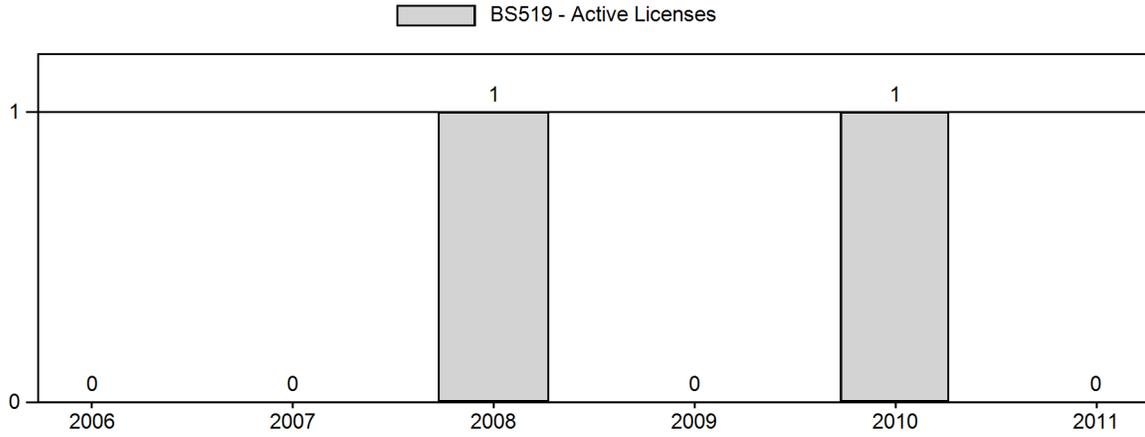
Number of Hunters



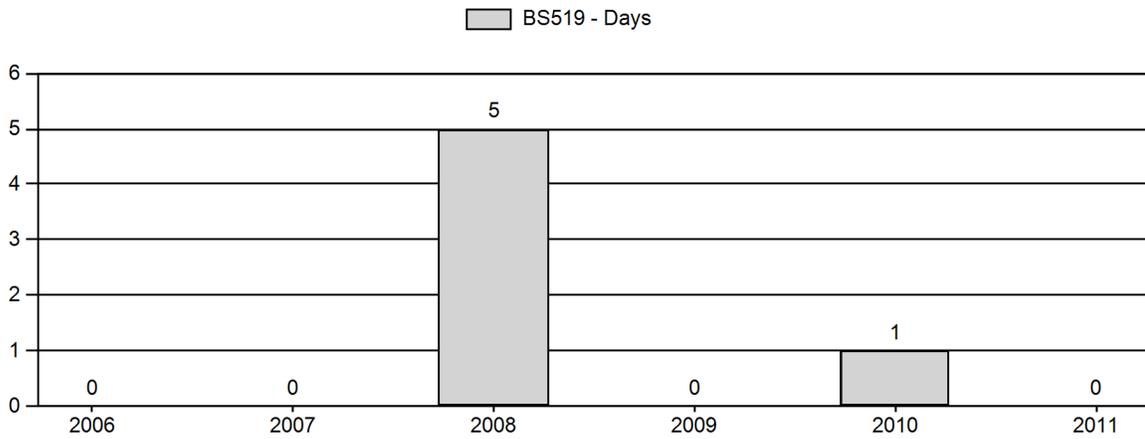
Harvest Success



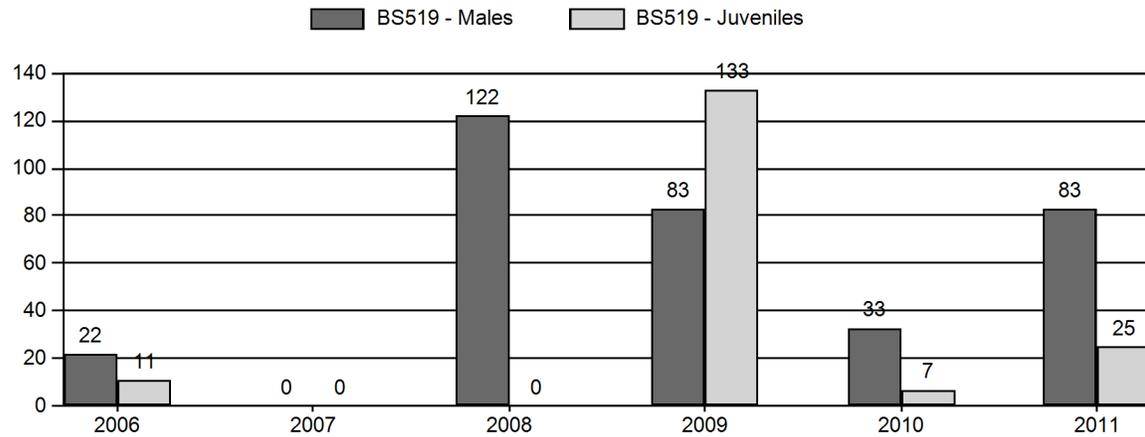
Active Licenses



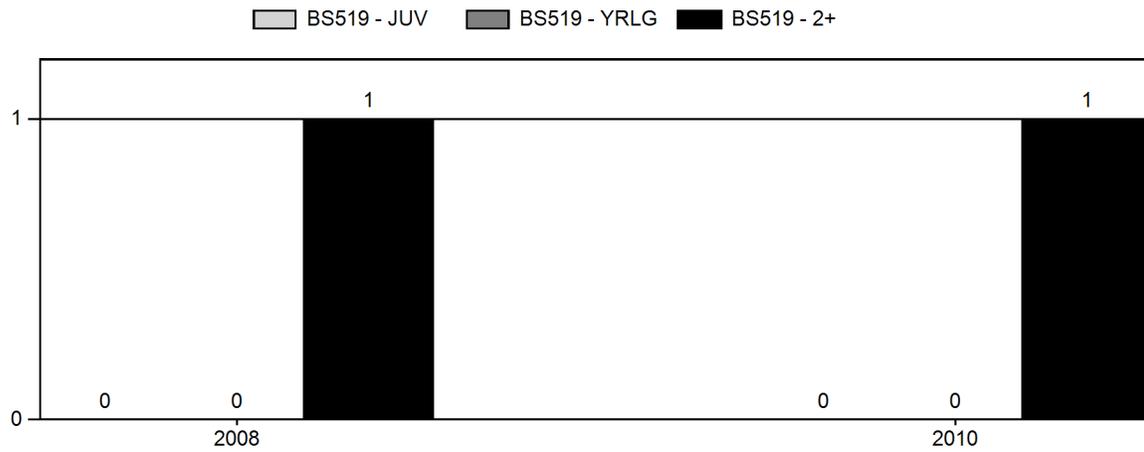
Days per Animal Harvested



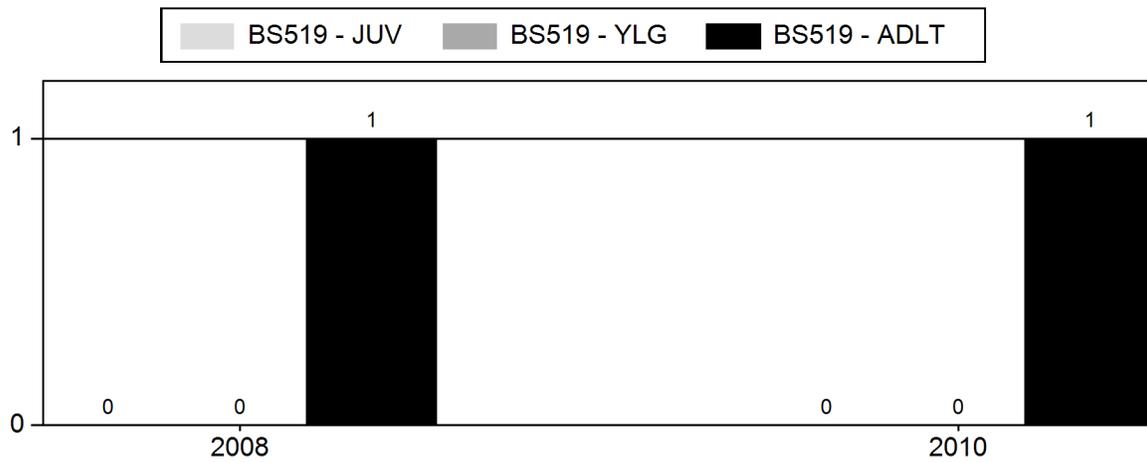
Postseason Animals per 100 Females



Age Structure of Field Checked Males



Age Structure Data (Field and Laboratory) - Male



2006 - 2011 Postseason Classification Summary

for Bighorn Sheep Herd BS519 - ENCAMPMENT RIVER

Year	Post Pop	MALES				FEMALES		JUVENILES		Tot Cls	Cls Obj	Males to 100 Females				Young to		
		Ylg	Adult	Total	%	Total	%	Total	%			YIng	Adult	Total	Int	100 Fem	Conf Int	100 Adult
2006	0	2	2	4	17%	18	75%	2	8%	24	0	11	11	22	± 11	11	± 7	9
2007	0	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0
2008	0	1	10	11	55%	9	45%	0	0%	20	46	11	111	122	± 0	0	± 0	0
2009	0	0	5	5	26%	6	32%	8	42%	19	0	0	83	83	± 0	133	± 0	73
2010	0	0	5	5	24%	15	71%	1	5%	21	0	0	33	33	± 0	7	± 0	5
2011	0	0	10	10	40%	12	48%	3	12%	25	0	0	83	83	± 0	25	± 0	14

2011 HUNTING SEASONS

BS519 - ENCAMPMENT RIVER

<u>Hunt Area</u>	<u>Add'l Hunt Areas</u>	<u>Type</u>	<u>Quota</u>	<u>Season Dates</u>	<u>Limitations</u>
21		Type 1	0	09/01 - 09/01	Closed

2006 - 2011 Harvest Age Structure

for Bighorn Sheep Herd BS519 - ENCAMPMENT RIVER

Year	Males										Females										Herd	
	Juv	1	% 1 *	2	3 ^	% 3 **	Total Aged ++	Not Aged +++	Unk	Total Chkd	Juv	1	% 1 *	2	3 ^	% 3 **	Total Aged ++	Not Aged +++	Unk	Total Chkd	Total	
2008	0	0	0%	0	1	100%	1	0	0	1	0	0	0%	0	0	0%	0	0	0	0	0	1
2010	0	0	0%	0	1	100%	1	0	0	1	0	0	0%	0	0	0%	0	0	0	0	0	1

* Percent of aged animals (including unaged adults but excluding juveniles) 1 1/2 years old

^ Number of animals three years old and older. Animals aged older than three (excluding unaged adults) are lumped into this three plus category

** Percent of aged animals (not including juveniles or unaged adults) three years old or older

++ includes juveniles

+++ Unaged adults - unaged animals older than yearlings

**Encampment River Bighorn Sheep (BS519)
Hunt Area 21
2012 Season Recommendations**

Hunt Area	Type	Date of Seasons		Limitations
		Opens	Closes	
18, 21	1	Sept. 1	Oct. 31	CLOSED Limited quota; 2 licenses any ram (1 resident, 1 nonresident)
Archery		Refer to Section 3 of this Chapter		

Summary of Proposed Changes in License Numbers

Hunt Area	Type	Change From 2011
18, 21	1	+2

Management Evaluation

Adequate classification data for this herd has been difficult to collect. A POP-II population model has not been constructed for this herd unit due to limited classification and survival information. Observations indicate that lamb survival is poor and this herd is declining. A review of the management objective, currently at 200 bighorn sheep, may be warranted.

2011 postseason classification observations were obtained while conducting a mule deer survey from a helicopter in February of 2012. The classification results were 10 adult rams, 12 adult ewes, and 3 lambs observed (Table 1.). Past postseason classification efforts returned similar results. Based on the trend of this classification data, a reasonable population estimate of 30-40 bighorn sheep should be considered for this herd unit.

(Table 1.) 2002-2011 Postseason Bighorn Sheep Classifications, Encampment River Herd Unit, Wyoming.

Year	RAMS			EWES Total	LAMBS Total	RAMS/100 EWES			LAMBS/100 EWES	SAMPLE SIZE
	Ylng	Adult	Total			Ylng	Adult	Total		
2002	0	0	5	5	4	0	0	100	80	14
2003	0	0	0	0	0	0	0	0	0	0
2004	0	3	3	0	0	0	0	0	0	3
2005	0	0	0	0	0	0	0	0	0	0
2006	2	2	4	18	2	11	11	22	11	24
2007	0	0	0	0	0	0	0	0	0	0
2008	1	10	11	9	0	11	111	122	0	20
2009	0	5	5	6	8	0	83	83	133	19
2010	0	5	5	15	1	0	33	33	7	21
2011	0	10	10	12	3	0	83	83	25	25

Harvest

In 2010, two licenses were offered for Hunt Areas 18 and 21 combined. One ram was harvested in each Hunt Area. There was no hunting season offered in this herd unit in 2011.

2012 Season Proposal

We propose to offer 2 licenses valid in both Hunt Area 18 and 21.

BHS 519 - Encampment River
HA 21
Revised 7/02

