2013 - JCR Evaluation Form

SPECIES: Bighorn Sheep
PERIOD: 6/1/2013 - 5/31/2014

HERD: BS121 - DARBY MOUNTAIN

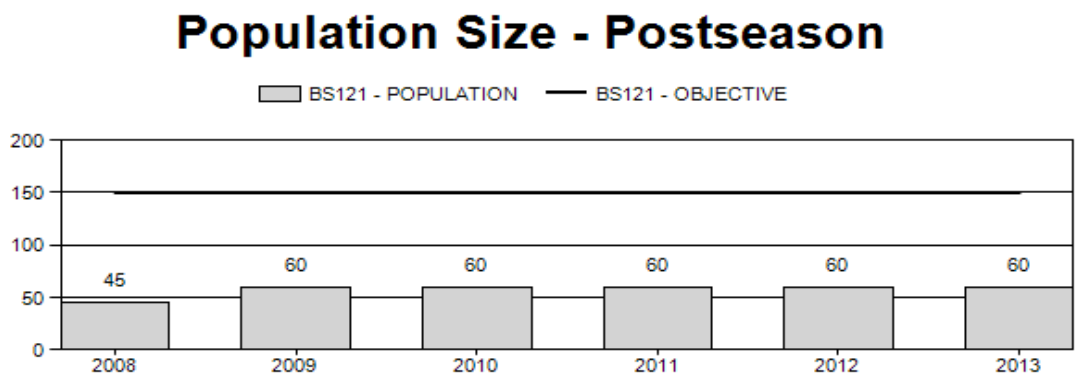
HUNT AREAS: 24
PREPARED BY: GARY FRALICK

	2008 - 2012 Average	2013	2014 Proposed
Population:	57	60	60
Harvest:	1	0	0
Hunters:	1	0	0
Hunter Success:	100%	0%	0 %
Active Licenses:	1	0	0
Active License Percent:	100%	0%	0 %
Recreation Days:	2	0	0
Days Per Animal:	2	0	0
Males per 100 Females	56	0	
Juveniles per 100 Females	50	0	

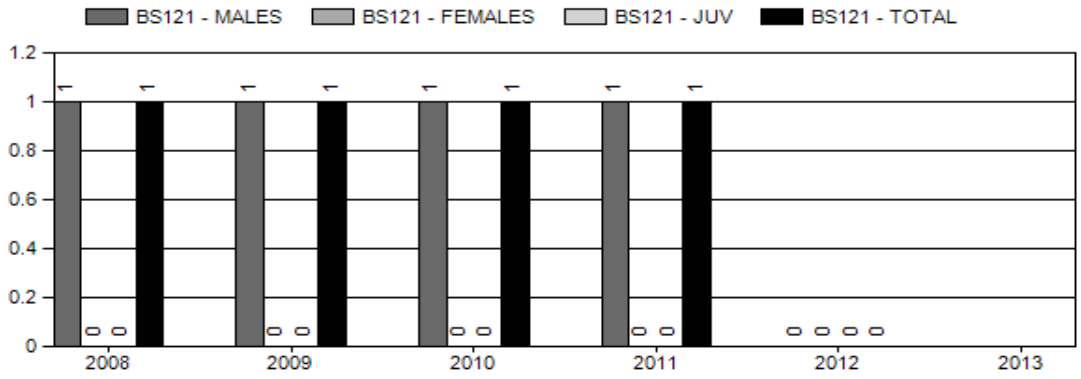
Population Objective:	150
Management Strategy:	Special
Percent population is above (+) or below (-) objective:	-60%
Number of years population has been + or - objective in recent trend:	21
Model Date:	02/23/2014

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

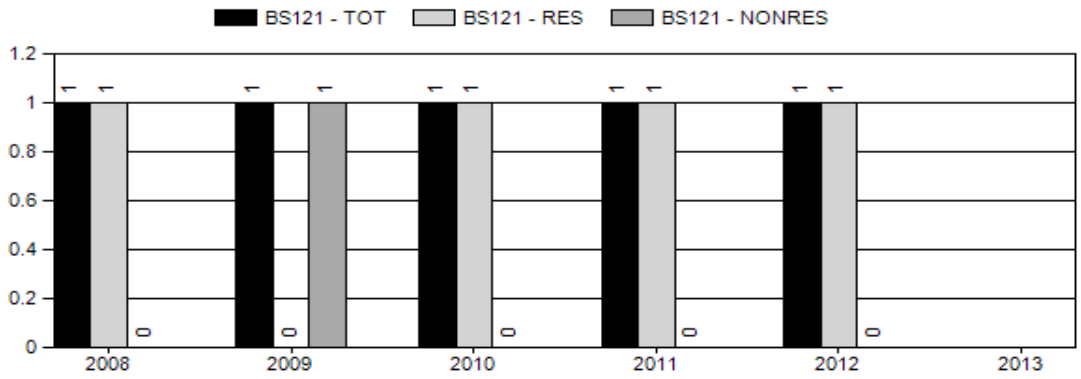
	JCR Year	Proposed
Females ≥ 1 year old:	NA%	NA%
Males ≥ 1 year old:	NA%	NA%
Juveniles (< 1 year old):	NA%	NA%
Total:	NA%	NA%
Proposed change in post-season population:	NA%	NA%



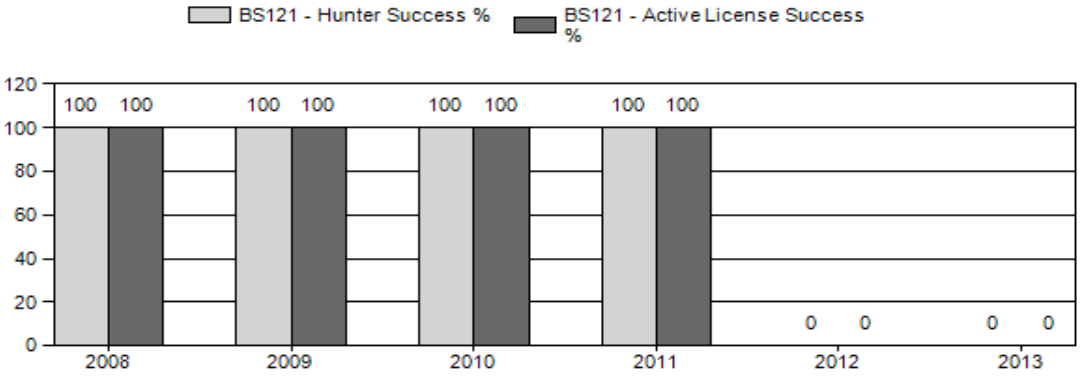
Harvest



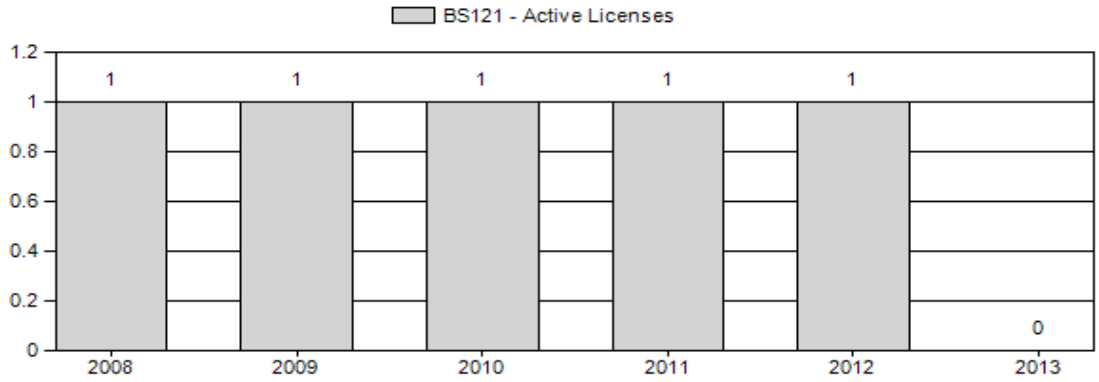
Number of Hunters



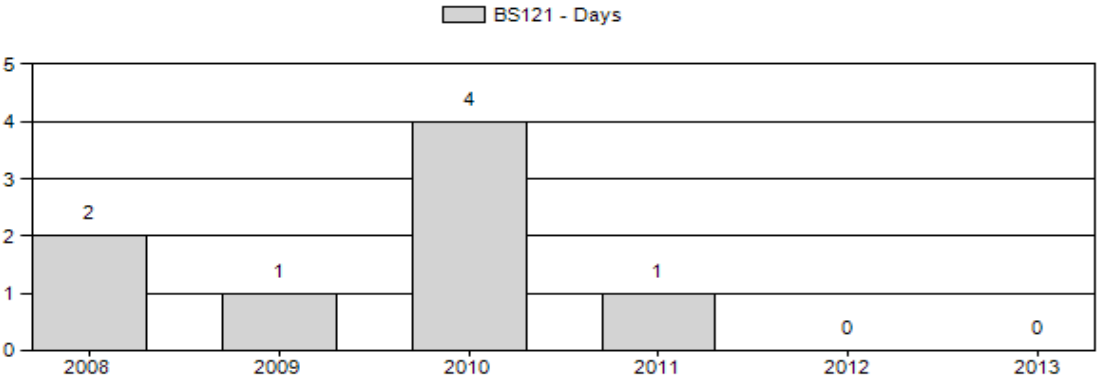
Harvest Success



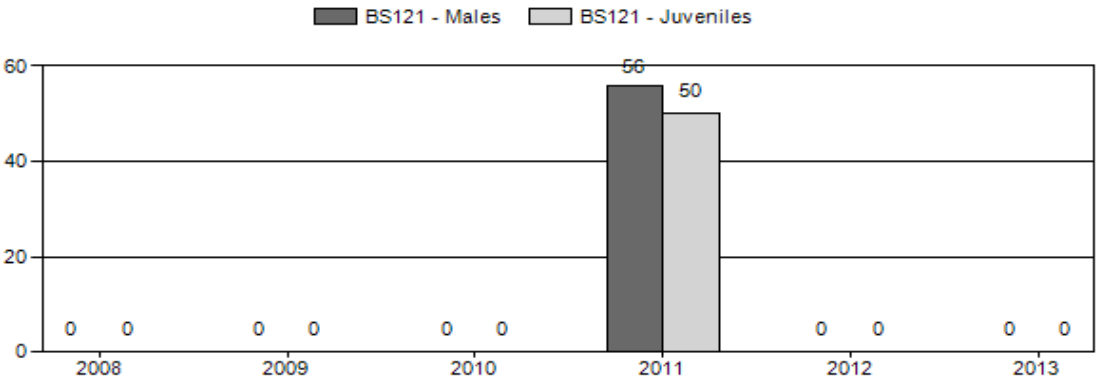
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2008 - 2013 Postseason Classification Summary

for Bighorn Sheep Herd BS121 - DARBY MOUNTAIN

		MALES				FEMALES		JUVENILES				Males to 100 Females				Young to		
Year	Post Pop	Ylg	Adult	Total	%	Total	%	Total	%	Tot Cls	Cls Obj	Ylng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2008	45	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0
2009	60	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0
2010	60	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0
2011	60	2	8	10	27%	18	49%	9	24%	37	0	11	44	56	± 17	50	± 16	32
2012	60	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0
2013	60	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0

2014 HUNTING SEASON

SPECIES: BIGHORN SHEEP **HERD UNIT: DARBY MOUNTAIN (BS121)**

DARBY MOUNTAIN HERD UNIT - BHS121

HUNT AREA	TYPE	OPENS	CLOSES	LIMITATIONS
24				CLOSED

Management Evaluation
Current Postseason Population Management Objective: 150
Management Strategy: Special
2013 Postseason Population Estimate: 60
2014 Proposed Postseason Population Estimate: 60

The Darby Mountain bighorn sheep herd population objective is 150 sheep. The objective was established in 1991, and will be reviewed in 2015.

The 2014 bighorn sheep hunting season for Hunt Area 24 is closed. Due to the lack of mature rams, low lamb numbers and poor recruitment of sheep from juvenile to older age classes, the Department will maintain this closure for the immediate future.

Herd Unit Issues

In 1981 the Wyoming Game and Fish Department and U.S. Forest Service reintroduced bighorn sheep (*Ovis canadensis*) into the Wyoming Mountain Range, west of Big Piney, Wyoming. The last wild sheep occupied this range in the early 1960s. Competition with domestic sheep and illegal harvest were believed responsible for their extirpation. Prior to

the transplant, domestic sheep were removed from allotments on Fish Creek and Darby Mountain, which provided the best historic bighorn sheep habitat. In January 1981, 35 Rocky Mountain sheep were transplanted from the Whiskey Basin Habitat Unit near Dubois, Wyoming to Fish Creek Mountain. In January 1987, another 25 bighorn sheep were transplanted from Whiskey Basin to the Fish Creek Mountain site. Funding assistance for this relocation effort was provided by the Foundation for North American Wild Sheep (FNAWS).

The estimated herd size in mid-winter 1988 was 110 sheep. However, the actual count on 20 February 1988 was 70 sheep and poor weather prevented completion of the survey. A comprehensive on-ground and aerial survey was conducted from 20 June - 14 July 1988 in approximately a 90 square mile area around Fish Creek Mountain. These surveys resulted in a post-lambing count of a minimum of 124 sheep consisting of 56 ewes, 28 lambs and 40 rams in the herd. In 1988 the first hunt was conducted in Hunt Area 24, based primarily on the results of the previous survey. Four permits were issued with 3/4 curl restrictions and four rams were harvested. The population is estimated to have increased to a maximum of approximately 150 sheep in 1994. The department continued to issue four permits for 3/4 curl rams from 1988 through 1997.

Forage production and availability studies on Fish Creek and Darby Mountain winter ranges, (prior to the 1981 re-introduction) suggested a combined capacity for 150 to 175 sheep in most winters. Other potential wintering sites were identified north and east of Fish Creek Mountain. Since 1981 individuals and small groups of sheep that typically number less than 15 individuals have been observed wintering near Star Hill, above the Middle Piney Creek summer homes, the hydrographic divide between the Greys River and Green River drainages in Box Canyon Creek in Greys River drainage, and the windblown ridge tops in the Straight Creek drainage west of Mount Schidler. Fish Creek Mountain and Darby Mountain continue to support the largest concentrations of wintering sheep.

Most summer observations have occurred within the 90 square mile core area around Fish Creek Mountain. However, since 1994 a few sub legal rams and small ewe-lamb groups have been observed on summer range outside the core area. Summer dispersal of bighorn sheep have been documented along the crest of the Wyoming Mountain Range in the vicinity of the headwaters of South Cottonwood Creek, McDougal Peak, Gunsight Pass, Middle Piney Creek, Straight Creek, North Piney Creek and Roaring Fork drainages as well. This dispersal has resulted in bighorn sheep and domestic sheep mingling on summer ranges in several active sheep allotments.

Weather

Weather conditions during the 2013 were extremely dry during the early portion of the summer. By late summer the moisture regime had changed frequent precipitation scenario that persisted into the fall hunting season. Drought conditions in the early portion of the summer abated by late fall as persistent snow storms began to deposit snowpack in the Wyoming and Salt Mountain Ranges. By late winter 2014 snowpack in western Wyoming

watersheds were estimated to be well-above normal. For additional weather and precipation data please visit the following websites: http://www.ncdc.noaa.gov/temp-and-precip/time-series and http://www.ncdc.noaa.gov/oa/climate/research/prelim/drought/pdiimage.html.

Habitat

Winter range browse plants have been measured each spring and fall to assess production and utilization since the late 1990s. Growing conditions improved in 2013 on winter ranges in spite of below average snowpack during the 2012-13 winter. Improved growing conditions were due to spring and summer rains which have a different effect on shrubs than winter snowpack due to rates of infiltration. Leader production on Wyoming big sagebrush and black sagebrush were the species most notably improved compared to the 2012 leader growth. However, average leader growth was still less than a half inch for Wyoming big sagebrush sites and less than two inches for mountain shrubs. For additional site specific information, please refer to the 2012 Annual Report Strategic Habitat Plan Accomplishments, pages104-123 for Pinedale Region habitat improvement project summaries (http://wgfd.wyo.gov/web2011/wildlife-1000708.aspx).

Field Data

In 2009, on-ground surveys were conducted in July, August, and September. These surveys resulted in a total of 49 different sheep observed. Sheep were observed on Fish Creek Mountain, Box Canyon, Marten Creek, and along the spine of the Wyoming Range from Mount Coffin as far north as Red Creek (Greys River). The age/sex classes were as follows: 22 females, 15 lambs, 11 adult rams, and one yearling ram. Herd composition was: 54 rams:100 ewes:68 lambs.

In 2010, an aerial survey was conducted in August. A total of 25 sheep were observed. The age/sex classes were noted as follows: 17 ewes, 7 lambs; 1 yearling ram, and 1 adult ram.

In February 2012, an aerial survey was conducted along the crest of the Wyoming Range south of Marten Creek to Wyoming Peak, and included Fish Creek and Darby Mountains. A total of 37 sheep were observed. The age/sex classes were noted as follows: 8 adult rams, 2 yearling rams, 18 ewes, and 9 lambs.

Harvest

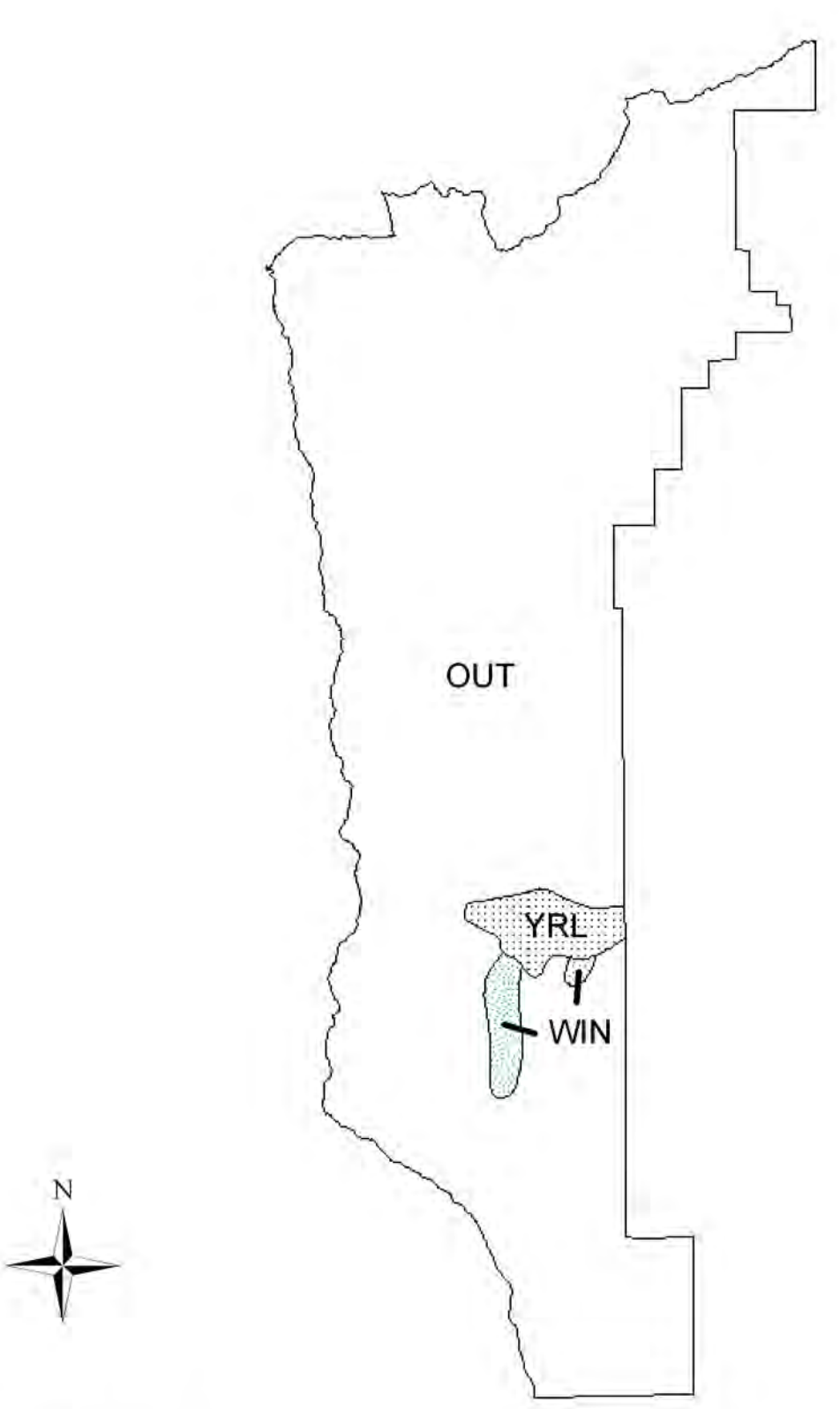
One license valid for any ram was issued for this hunt area from 2008 to 2012, respectively. A total of four rams were harvested from 2008 – 2011. In 2012, the one licensed hunter observed very few sheep and could not find a mature ram older than 5 years of age after 15 total days of hunting. The lack of sheep observed by the hunter is consistent with Department field surveys over the past five years.

Population

The population has stabilized at approximately 60 sheep. Systematic surveys, typically conducted from a helicopter in winter, have resulted in fewer than 60 sheep observed. Summer on-ground surveys conducted in August have identified the Box Canyon and Fish Creek Mountain areas as locations that typically support the highest aggregations of sheep.

Management Summary

The 2014 bighorn sheep hunting season for Hunt Area 24 is proposed to be closed. Due to the lack of mature rams, low lamb numbers and poor recruitment of sheep from juvenile to older age classes, the Department will maintain this hunt area closure for the immediate future. The hunting season will be closed until such time that an adequate number of rams can be documented to sustain a hunting season over time.



BHS 121- Darby Mtn.
HA 24
Revised 7/02