

2014 - JCR Evaluation Form

SPECIES: Bison

PERIOD: 6/1/2014 - 5/31/2015

HERD: BI101 - JACKSON

HUNT AREAS: 2

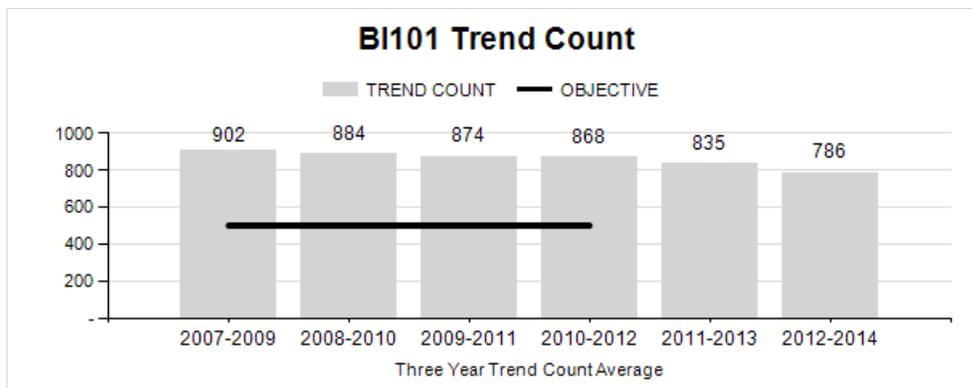
PREPARED BY: ALYSON COURTEMANCH

	<u>2009 - 2013 Average</u>	<u>2014</u>	<u>2015 Proposed</u>
Trend Count:	858	691	650
Harvest:	189	299	230
Hunters:	261	321	311
Hunter Success:	72%	93%	74%
Active Licenses:	261	321	311
Active License Success	72%	93%	74 %
Recreation Days:	1,839	908	1,500
Days Per Animal:	9.7	3.0	6.5
Males per 100 Females:	63	55	
Juveniles per 100 Females	45	51	

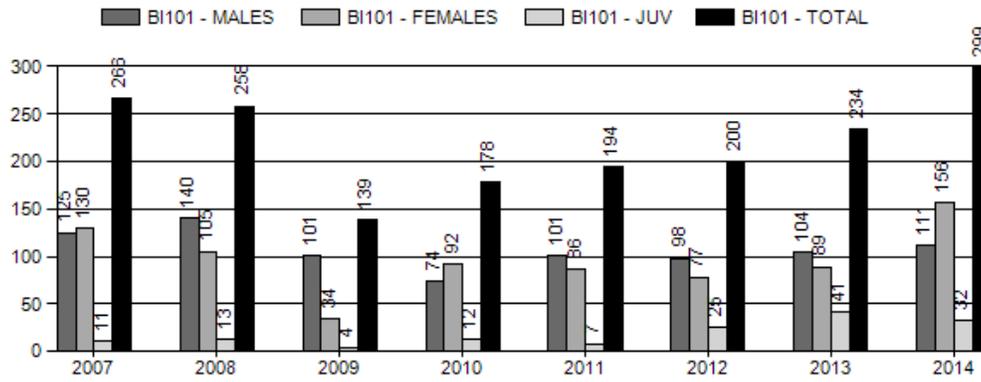
Trend Based Objective ($\pm 20\%$)	500 (400 - 600)
Management Strategy:	Recreational
Percent population is above (+) or (-) objective:	38%
Number of years population has been + or - objective in recent trend:	10

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

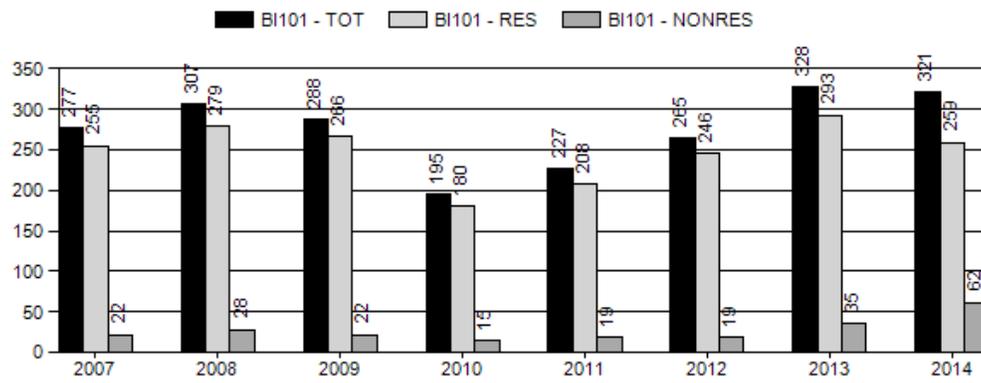
	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	na%	na%
Males ≥ 1 year old:	na%	na%
Juveniles (< 1 year old):	na%	na%
Total:	na%	na%
Proposed change in post-season population:	na%	na%



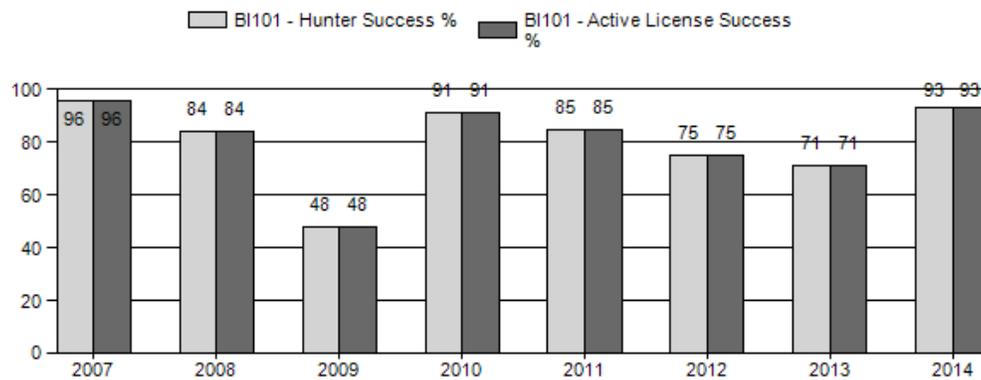
Harvest



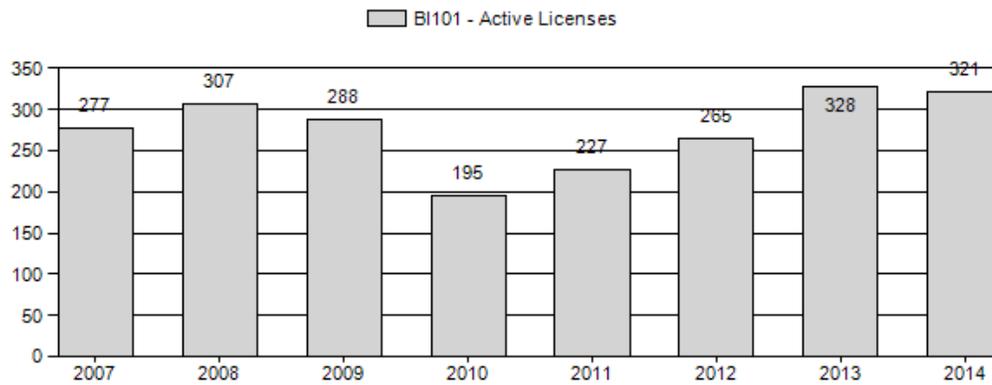
Number of Hunters



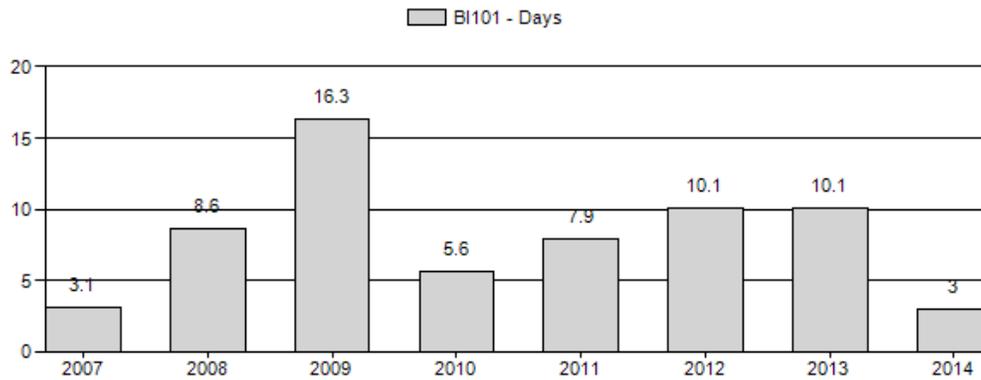
Harvest Success



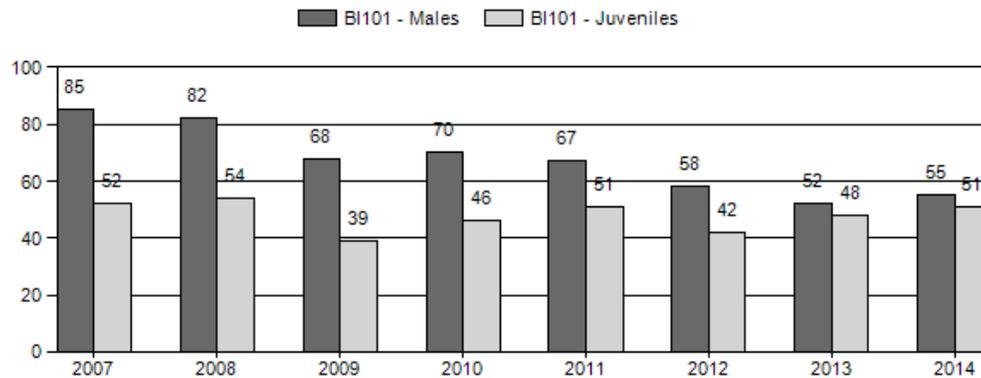
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2007 - 2014 Postseason Classification Summary

for Bison Herd BI101 - JACKSON

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
2007	971	84	260	344	36%	406	42%	212	22%	962	0	21	64	85	±0	52	±0	28
2008	898	98	203	301	35%	369	42%	200	23%	870	0	27	55	82	±0	54	±0	30
2009	895	81	206	287	33%	421	48%	165	19%	873	0	19	49	68	±0	39	±0	23
2010	927	76	218	294	32%	423	46%	193	21%	910	0	18	52	70	±0	46	±0	27
2011	887	102	156	258	31%	386	46%	196	23%	840	0	26	40	67	±2	51	±1	30
2012	875	73	174	247	29%	429	50%	179	21%	855	0	17	41	58	±1	42	±1	26
2013	825	74	131	205	26%	398	50%	191	24%	794	0	19	33	52	±1	48	±1	32
2014	0	68	117	185	27%	336	49%	170	25%	691	0	20	35	55	±0	51	±0	33

2015 HUNTING SEASONS JACKSON BISON HERD (BI101)

Hunt Area	Type	Season Dates		Quota	License	Limitations
		Opens	Closes			
2	1	Aug. 15	Jan. 15	40	Limited quota	Any wild bison; also valid in Area 1 within the Clark's Fork River and Soda Butte Creek drainages. Valid in other portions of Area 1 upon notification and authorization by the Department.
2	4	Aug. 15	Jan. 15	265	Limited quota	Any female or calf wild bison; also valid in Area 1 within the Clark's Fork River and Soda Butte Creek drainages. Valid in other portions of Area 1 upon notification and authorization by the Department.

Summary of 2015 License Changes

Hunt Area	Type	Quota change from 2014	Other changes from 2014
2	1	-50	- 3 days
	4	+40	- 3 days

Management Evaluation

Mid-Winter Trend Count Objective: 500

Management Strategy: Recreational

2014 Mid-Winter Trend Count: 691

2015 Proposed Mid-Winter Trend Count: 650

3-Year Mid-Winter Trend Average (2012-2014): 786

The mid-winter trend count objective for the Jackson Bison Herd is 500 bison. The management strategy is recreational and the objective and management strategy were last revised in 2014. The herd objective was publicly reviewed in 2014 and changed to a mid-winter trend count objective of 500 bison. The current trend count is 691 bison. Annual harvest rates have recently reduced the population toward the 500 bison objective.

Herd Unit Issues

Management of this herd is complicated because occupied habitat includes Grand Teton National Park (GTNP), the National Elk Refuge (NER) and the Bridger-Teton National Forest (BTNF). Bison remain distributed in GTNP during much of the summer and fall and are not available for hunting until they migrate to either BTNF or the NER. Over the past several years, bison have become sensitized to the presence of hunters on the NER and will vacate the open hunt area. Bison hunter numbers are limited on the NER due to concurrent elk hunting seasons and issues with hunter crowding. Permits for the NER are structured in an attempt to provide hunters with a quality hunting experience while moving the bison population toward the mid-winter objective of 500.

Weather

Summer and fall 2014 produced consistent moisture, leading to good forage production. The Snake River Basin received above-average snowfall in December and early January, but weather turned warm and dry by February. Many low elevation slopes were snow-free by mid-February, but snow remained deep and heavy with a hard crust on north-facing slopes and higher elevations. At the time of the mid-winter survey, winter precipitation was reported at 91% of normal. Please refer to the following web sites for specific weather station data.

<http://www.wrds.uwyo.edu/wrds/nrcs/snowprec/snowprec.html> and
<http://www.ncdc.noaa.gov/oa/climate/research/prelim/drought/pdiimage.html>

Habitat

No habitat data have been collected on bison summer and winter ranges. There are no established vegetation transects in this herd unit. Please refer to the 2014 Annual Report Strategic Habitat Plan Accomplishments for Jackson Region habitat improvement project summaries (<https://wgfd.wyo.gov/web2011/wildlife-1000708.aspx>).

Field Data

During the mid-winter trend count in February 2015, a total of 674 bison were classified in the McBride and Poverty Flats areas on the NER and an additional 17 bison were observed on native ranges in the Spread Creek and Shadow Mountain areas for a total of 691 bison counted. Personnel from GTNP and the Wyoming Game and Fish Department classified 117 adult males,

68 yearling males, 336 cows, and 170 calves. Herd unit ratios were 55 bulls:100 cows and 51 calves:100 cows. The bull ratio has steadily declined from 82:100 in 2008, likely due to bull harvest. The population is managed to maintain a high bull:cow ratio, therefore managers will continue to adjust licenses to address the declining bull ratio while maintaining overall bison harvest. Trend data indicate that the bison population has stabilized and started to decline with current harvest levels (Figure 1).

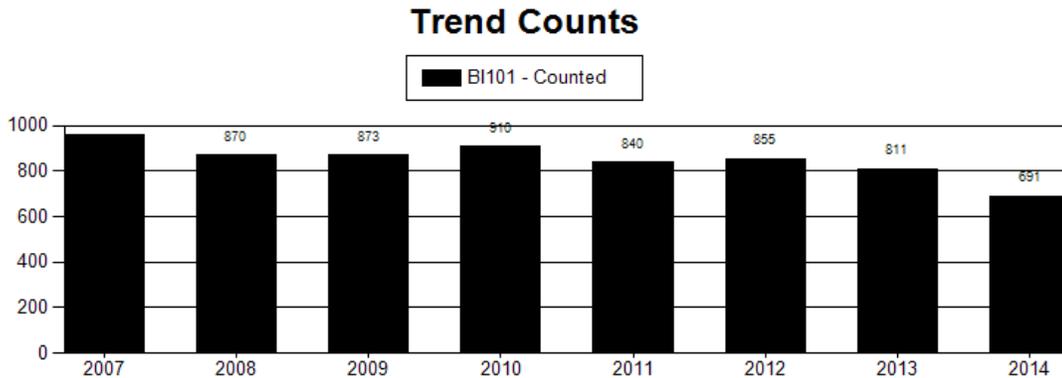


Figure 1. Mid-winter trend counts of the Jackson Bison Herd, 2007-2014.

Harvest Data

The sale of bison licenses has improved by requiring hunters to submit payment with their license applications beginning in 2014. During the 2014 hunting season, 321 hunters harvested 111 bulls, 156 cows, and 32 calves, totaling 299 bison. This harvest is the highest ever recorded for the Jackson Bison Herd. In 2013, 328 hunters harvested 104 bulls, 89 cows, and 41 calves, totaling 234 bison. In 2012, hunters harvested 200 total bison and during 2011 hunters harvested 194 total bison. In 2014, hunters reported a 93% success rate. In 2014, 18 bulls were harvested using Type 4 cow/calf licenses. Most of these incidents were due to sex misidentification by the hunter. In 2014, there were 5 Governor's Licenses, 1 Super Tag, and 1 Super Tag Trifecta license available for bison.

When the population was high, the annual bison harvest had to exceed 200 animals to move the population toward its mid-winter objective of 500 bison. This is due to the consistently high reproductive rate of the herd; approximately 200 calves were recruited into the herd each year. As the population has been reduced toward objective, the reproductive rate remains high but the number of adult females has decreased. This year, approximately 170 calves are expected to be recruited into the population, therefore, harvest needs to exceed 170 animals to further reduce the population in 2015. The season was extended in 2014 by 6 days to increase harvest when bison are present on the NER. Bison consistently occupied areas of the NER from late November through the end of the hunting season during 2014. Typically, bison do not move to the NER until late December. The presence of bison on the NER for nearly 2 months resulted in high harvest success and low daily hunter densities.

Population

The 2014 mid-winter trend count indicates that the population decreased by approximately 15% in 2014. The population peaked at 1,100 animals in 2007, was stabilized by harvest from 2008-2010, and has started to trend downward in recent years. Consistently high calf:cow ratios around 50:100 have made it difficult to reduce the population. When the population was high, harvest levels needed exceed 200 bison in order to move the population toward the mid-winter objective of 500 animals. Now, since the number of adult cows has been reduced through harvest, approximately 170 calves are expected to be recruited this year. Therefore, harvest must exceed 170 animals in 2015 to reduce the population. Managers continue to monitor the bull:cow ratio and aim to increase the ratio while maintaining overall harvest pressure on the population.

Management Summary

Harvest success was high in 2014 (93% success), which resulted in a substantial reduction in the bison population. However, the population remains approximately 38% above objective. Hunting seasons will be structured to continue to reduce the population toward objective. The license quota for Type 1 (any wild bison) will be 40 in 2015, a reduction by 50 licenses to reduce harvest pressure on bulls. The license quota for Type 4 (cow or calf wild bison) will be 265 in 2015, an increase by 40 licenses. This increase is to offset the decrease in Type 1 licenses and to continue to maintain hunting pressure on the reproductive segment of the population (females). In addition, 5 Governor's Licenses will be available and 1 Super Tag for bison. The one winner of the Super Tag Trifecta drawing may also choose a bison license, depending on their species preference. Hunter access to the NER will be allowed along the Gros Ventre River from U.S. Highway 191 and at designated parking areas along the Kelly Road in GTNP. Since the number of adult cows has been reduced through harvest, approximately 170 calves are expected to be recruited this year. Therefore, harvest must exceed 170 animals in 2015 to reduce the population. The season will remain open until January 15 to increase opportunity for late season harvest.

Based on harvest trends over the last 5 years, a substantial reduction in Type 1 licenses is needed to increase the bull:cow ratio after the 2015 hunting season. During most years, harvest success for Type 1 licenses is above 80%, whereas Type 4 licenses are much lower. To raise the bull:cow ratio, cow harvest must continue at a relatively high rate while reducing pressure on bulls. Based on average harvest rates, it is expected that issuing 40 Type 1 licenses in 2015 will result in approximately 64 bulls harvested (40 Type 1 licenses + 5 Governor's licenses + 1 Super Tag multiplied by an average 82% success rate + approximately 20 bulls harvested on Type 4 licenses due to sex misidentification). If adult cows are harvested at an average rate (40% success) with 265 licenses, the expected bull:cow ratio would be 60 to 70:100 during the 2015 post-season classification and the overall population would be reduced to approximately 650.