

JACKSON BISON HERD UNIT

POPULATION OBJECTIVE REVIEW

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The Jackson Bison Herd Unit, Area 2, includes all lands within Lincoln and Sublette counties and Teton County west of the Continental Divide. While the herd unit encompasses a large area of land, bison are primarily distributed on lands north of the town of Jackson in Grand Teton National Park (GTNP), the National Elk Refuge (NER) and portions of the Bridger Teton National Forest (BTNF). Wild bison hunt area 2 excludes GTNP, John D. Rockefeller Jr. Memorial Parkway and Yellowstone National Park (Figure 1). Wild bison are designated as wildlife by Wyoming Statute 23-1-101(a)(xiii). Land ownership status in the herd unit is primarily public land. The majority of the bison herd spend spring, summer and early fall in GTNP with small groups of bull bison utilizing BTNF lands east of the Park. During the late fall and early winter, bison migrate to the National Elk Refuge (NER) or native winter ranges in the Elk Ranch/Spread Creek Area. The current population objective for the Jackson herd is 500 bison. The management strategy is recreational and the objective and management strategy were last revised in 2008.

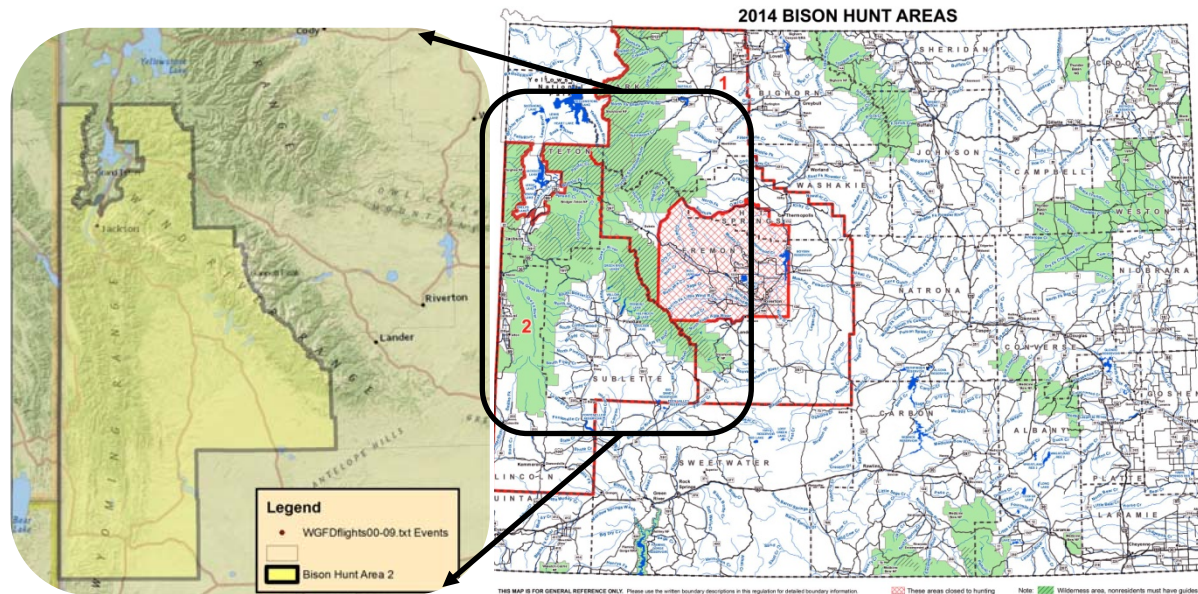


Figure 1. Bison Hunt Area 2.

Population Objective Review

In 1985, the USFWS and WGFD developed a bison management plan to maintain a self-sustaining, free-ranging bison population. Public hunting was proposed to maintain the herd at the objective level of 110 animals and the first public bison hunt was conducted on the National Elk Refuge during the 1988-1989 winter. The hunt was conducted jointly by the USFWS and WGFD with 12 bison being harvested.

The U.S. Department of Interior agencies (Grand Teton National Park and Fish and Wildlife Service) initiated the Bison and Elk Management Plan and Environmental Impact Statement (BEMP-EIS) in 1999 to analyze bison and elk management in their respective jurisdictions. The WGFD was a cooperator during this analysis. The BEMP-EIS was released in early 2007 and the Record of Decision (ROD) guiding bison and elk management on the Refuge was published later that summer. The ROD recognized the Wyoming Game and Fish Commission's primacy in setting a population objective, and recommended that an objective of 500 bison would alleviate most concerns with maintaining adequate genetic variability of the herd into the future. The Wyoming Game and Fish Commission moved to adopt a post-season objective of 500 bison during their February 2008 meeting.

Current Management Strategy

Hunting seasons in the Jackson herd are formulated to maximize hunter opportunity and management of this herd is complex because bison occupy habitats in GTNP, the NER and the BTNF. During spring, small groups of bull bison move on to private lands in and adjacent to GTNP and the NER. During late summer and fall some bulls move on to the National Forest near the Shadow Mountain and Spread Creek areas while larger herds of cows, calves and younger bulls often remain in GTNP. The cow calf groups are not vulnerable to hunting until they migrate later in the summer or early fall to the NER or the BTNF. Over the past several years, bison have become sensitized to the presence of hunters and often vacate open hunt areas. License holders are allowed to hunt bison on the NER and since 2007 an average of 210 bison has been harvested annually in the herd unit. Based on recruitment of calves each year, the annual bison harvest must exceed 190 animals to move this population toward its mid-winter objective of 500 bison.

During the mid winter trend survey in 2014 a total of 786 bison were classified on the NER and an additional 25 bison were observed on native ranges in the Spread Creek and Snake River areas for a total of 811 bison counted (Figure 2). The bison population peaked at 1,100 animals in 2007, was stabilized by harvest from 2008-2010 and in recent years has started to trend downward. Consistently high calf:cow ratios have made it difficult to reduce the population. Since 2007, an average of 190 calves was counted annually during classification surveys of bison winter ranges in the herd unit.

A POPII model was used to simulate this population from 1998 – 2011 and during this time, modeling efforts indicated that 90 percent of the bison population was observed during mid-winter classification surveys. A spreadsheet model was developed in 2012 after POPII software was no longer supported. Spreadsheet modeling efforts resulted in inaccurate populations estimates that indicated the population of bison was either increasing exponentially or crashing even though trend data suggested otherwise.

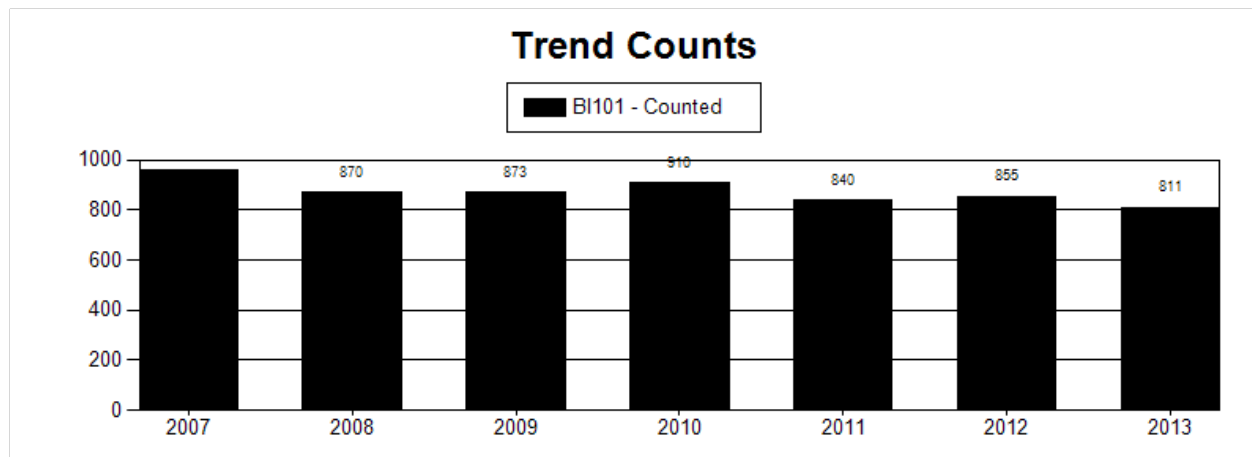


Figure 2. Total bison counted during mid-winter surveys 2007- 2013.

Proposed Objective

Based on winter bison distribution, the high percentage of animals observed on winter ranges and the inaccuracy of the spreadsheet models, field managers are proposing to use mid winter trend data to monitor this population. The trend count objective of 500 bison would be based on aerial surveys and ground counts of bison on all known winter ranges. Since the late 1990s ground surveys have been conducted on the NER and animals off of the Refuge were counted during helicopter surveys.

The mid-winter aerial counts will provide managers with an index to population size that is subject to winter severity. Based on previous modeling efforts, winter trend counts are not true population estimates, but mirror population trends very closely. Trend data will be analyzed using a 3-year running average to smooth out some of the variation due to sampling bias and weather/counting conditions. The trend count objective can encompass a range of $\pm 20\%$ (± 100 animals) of the target value.

Public and Agency Involvement

From 1999 through 2007, the Wyoming Game and Fish Department and the Park Service, Forest Service and Fish and Wildlife Service have been involved in the analysis and development of a 15 year plan to manage the Jackson bison herd in GTNP and on the NER. The plan recommended an objective of 500 bison. Public meetings were scheduled for Jackson and Alta during the first week of June 2014. A news release announcing the public meeting was mailed out in late May and the local newspaper ran an article on the proposals the day of the Jackson meeting. A total of 26 people participated in these meetings. There were no comments regarding the bison objective and in general attendees supported the Department's efforts to manage wildlife in the Jackson Region but had concerns that funding was limiting aerial surveys of wildlife populations in the Targhee herd units. The news release, article in the Jackson Hole News and Guide, public sign-up sheets and comments are included in Appendix A.