

Wildlife Restoration OPERATING GRANT FINAL PERFORMANCE REPORT

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF WILDLIFE CONSERVATION
PO Box 115526
Juneau, AK 99811-5526

Alaska Department of Fish and Game Wildlife Restoration Grant

GRANT NUMBER: AKW-B-R3-2020

PROJECT NUMBER: P9.0

PROJECT TITLE: Alaska's Region III Plains Bison S&I program: Plains Bison Populations and Factors Influencing Their Status in Interior and Northeast Alaska

PERIOD OF PERFORMANCE: July 1, 2019 - June 30, 2021

PERFORMANCE YEAR: July 1, 2020 - June 30, 2021; year 2 of a 2-year grant

REPORT DUE DATE:

PRINCIPAL INVESTIGATOR: Darren L. Bruning, Fish and Game Coordinator, ADF&G

COOPERATORS: N/A

I. PROGRESS ON PROJECT OBJECTIVES DURING PERIOD OF PERFORMANCE

Project statement objectives:

Objective 1: Population Size, Status, and Trend. Assess the size and status of each plains bison population to determine the 5-year trend.

1.1 Conduct surveys to assess population status, distribution, productivity, sex and age composition, and mortality.

ACCOMPLISHMENTS:

- Skeletal muscle tissue samples from 20 harvested bison were collected and archived to contribute to knowledge of North American bison genetics.
- We conducted 5 aerial surveys (20 hours total flight time) during May–June to estimate the fall pre-hunt size of the Farewell Bison Herd.
- Surveys were conducted 3 times (12 hours of flight time) during April–June to monitor Delta Bison Herd distribution, calving rates, and to estimate the fall pre-hunt size.

- We conducted 1 composition count from the ground during July in which we determined age class and sex of 265 bison.
- A fall pre-hunt distribution flight was conducted in September during 6 hours of flight time.

1.2 Capture bison to deploy radio collars and/or collect productivity data.

ACCOMPLISHMENTS:

- We captured 10 bison from the Farewell herd in April and fitted them with GPS collars, and 2 bison were captured during April from the Delta herd and fitted with VHF radio collars.

Objective 2: Mortality, Harvest Monitoring and Regulations. Assess the number of plains bison harvested by hunters and other sources of mortality that might have an impact on each population.

2.1 Monitor harvest from permit hunts and analyze harvest data to determine harvest rate and effect on population.

ACCOMPLISHMENTS:

- We monitored harvest of 110 bison by 146 permittees, including 80 Delta bison (Unit 20D) and 30 Farewell bison (Unit 19) by 125 hunters during 3 hunting seasons ranging 31 to 180 days long. Harvest data were analyzed, and the results were applied to management planning and ongoing population assessment.

2.2 Collect biological samples from hunter-killed bison to conduct genetics analysis and disease screening.

ACCOMPLISHMENTS:

- We collected 40 biological samples from hunter-killed bison and submitted samples for disease screening.
- We conducted health surveillance by examining lungs and carcasses when available. Three lungs were deemed abnormal and sampled sent to a lab for further disease screening, specifically for respiratory system surveillance.

Objective 3: Habitat Enhancement and Assessment. Assess plains bison habitat and browse availability directly or indirectly in specified areas of the state and perform habitat enhancement in areas where it is feasible.

3.1 Assess range conditions

ACCOMPLISHMENTS:

- Habitat where bison are frequently found was monitored during the flights listed under Objective 1.
- Vegetation and habitat were assessed on the Farewell range, but it was somewhat informal due to staff limitations and time constraints caused by COVID-19. Soil samples were also taken at mineral deposits used by bison, we are still waiting on the results.

3.2 Promote habitat improvement by working with fire control agencies to eliminate or minimize suppression of naturally-occurring fires in situations where suppression is not necessary.

ACCOMPLISHMENTS:

- We assessed Farewell Bison range conditions from the air during 6 hours of fixed-wing flight time.
- We assessed range conditions and worked with fire control agencies to plan for 3 prescribed burns.
- 1 prescribed fire was performed under this grant for approximately 688 acres. Other planned fires were postponed due to COVID-19.

3.3 Monitor timing of bison movements from the summer range to the Delta Junction Bison Range (DJBR) and private agricultural lands.

ACCOMPLISHMENTS:

- Delta bison herd movements were monitored weekly during August in 3 aerial surveys, for 6 hours of fixed-wing flight time to determine when bison moved from summer range to the DJBR and from the DJBR to private agricultural lands. Agricultural landowners were notified when bison moved onto private agricultural lands or were in close proximity to unharvested fields.
- We spent approximately 10 hours in total educating/assisting famers to help reduce bison depredation on crops.

3.4 Plant and fertilize preferred bison forage species and control invasive, non-desirable species within the DJBR.

ACCOMPLISHMENTS:

- We planted 260 acres of oats, 60 acres of turnips, and 43 acres of new bluegrass. A total of 140 acres of perennial grasses were fertilized. An additional 34 acres of brush were mowed to create and promote preferred bison forage on the DJBR.
- We treated 75 acres with herbicide and maintained firebreaks as measures to control invasive and non-desirable plant species on the DJBR.

3.5 Provide trace mineral and water supplements within the DJBR.

ACCOMPLISHMENTS:

- Water was provided on demand for bison during July–September at the DJBR via a recently improved automated generator and well system with stock tanks provided for drinking. Approximately 20 trace mineral blocks were provided on the DJBR during July–September.

3.6 Monitor forage quality

ACCOMPLISHMENTS:

- Forage quality monitoring was accomplished through visual assessment throughout the year and by taking 8 forage samples at the end of the growing season for lab analysis to determine protein and relative feed values.

Objective 4: Plains Bison Management with Public Participation and Outreach. Manage each plains bison population with an emphasis on engaging the public in management goals and objectives through public meetings, working groups, educational materials, and incentive programs.

4.1 Prepare information for 5-year plains bison management reports and plans and write draft plans.

ACCOMPLISHMENTS:

- We compiled information and data for 2 five-year Plains Bison Management Reports and Operational Plans for Units 19 and 20D. When final, these reports will include historical and current data, management directions, methods, Board of Game actions, harvests and natural mortality, habitat assessments, and local and statewide non-regulatory issues. They are expected to be completed in FY2022 and will be available at the following url: <http://www.adfg.alaska.gov/index.cfm?adfg=librarypublications.wildlifepublications&sort=all&species=Plains+Bison&submit=Search>. These were due to be published in 2019, so where are you on your SMRP?

4.2 Provide bison management information to State and Federal regulatory processes.

ACCOMPLISHMENTS:

- We communicated and coordinated with and attended meetings of 3 local Fish and Game Advisory Committees, the Alaska Board of Game, the Delta–Salcha Soil and Water Conservation District, Delta Farm Bureau, members of the Delta Bison Working Group, private landowners, local village councils, and Native corporations, about plains bison management and to review and analyze regulation proposals for the Alaska Board of Game and the Federal Subsistence Board.

4.3 Administer and update bison identification information for the public.

ACCOMPLISHMENTS:

- We printed and mailed educational bison hunt materials to all bison drawing permit winners.
- We redesigned the online and in-person bison hunter orientation guides and staff members coordinated with project 21.0 staff to redesign the bison identification and quiz booklet.
- Staff gave 6 in-person bison hunter orientations to approximately 50 attendees to help hunters identify bison sex and age groups, along with other aspects of hunting bison.

4.4 Review population objectives to assess their relevance

ACCOMPLISHMENTS:

- Data and information from activities in objectives 1–4 was used by biologists in 2 area offices to review population and harvest objectives to determine whether each objective remained relevant during the current year and assessed whether harvest of each population needed to be adjusted in the coming year.

II. SUMMARY OF WORK COMPLETED ON PROJECT TO DATE.

Results of objectives 1–4 will be summarized in the report portion of the 5-year plains bison management report and plan, scheduled to be published in FY22. Summaries of past data trends and analyses are published at the following url:

<http://www.adfg.alaska.gov/index.cfm?adfg=librarypublications.wildlifepublications&sort=all&species=Plains+Bison&submit=Search>

III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.

No Significant Development Reports were submitted for this project.

In addition to progress noted in section I, more than expected was expended as follow:

- Contractual. An additional \$16,000 was spent in contractual than budgeted in the project statement because of a) increased hourly rates of contract aircraft, b) underestimated number of flight hours needed to conduct surveys, and c) underestimated contract service costs for printing and mailing bison identification and hunt materials.

IV. PUBLICATIONS

No bison management reports and plans were published in during the report period due to COVID-19 delaying preparations.

V. RECOMMENDATIONS FOR THIS PROJECT

We recommend continued funding for this project in order to effectively survey, inventory and manage plains bison populations in Interior and Eastern Arctic Alaska.

Prepared by:

Date: September 2021