#### Alaska Department of Fish and Game

#### Wildlife Restoration Grant

**GRANT NUMBER:** – AKW-B-R3-2020

**PROJECT NUMBER:** – P4.0

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

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

PERFORMANCE YEAR: July 1, 2019 - June 30, 2020; year 1 of a 2-year grant

**REPORT DUE DATE:** Submit to FAC August 28, 2020

PRINCIPAL INVESTIGATOR: Doreen Parker McNeill

**COOPERATORS:** N/A

Authorities: 2 CFR 200.328 2 CFR 200.301 50 CFR 80.90

#### I. PROGRESS ON PROJECT OBJECTIVES DURING PERFORMANCE YEAR

OBJECTIVE 1: Conduct 3 investigations by 06-30-2021.

#### **Project statement objectives:**

**Objective 1: Population Size, Status, and Trend.** Assess the size and status of each brown/grizzly bear population to determine the 5-year trend.

# 1.1 Assess population trends through anecdotal field observations made by biologists and members of the public.

ACCOMPLISHMENTS:

• We noted brown/grizzly bear locations during aerial surveys for other species.

- We discussed brown/grizzly bear observations across the region with hunters, guides, troopers, and members of the public.
- We discussed brown/grizzly bear observations with moose hunters at the Koyukuk check station during a 6-week period in August and September.
- We discussed brown/grizzly bear observations with hunters and provided USB drives to hunters who may wish to share their trail camera SD cards with us to help understand the status of grizzly bears.

# 1.2 Obtain estimates of ages of harvested bears by tooth sectioning and counting annuli.

ACCOMPLISHMENTS:

• We obtained estimated ages during FY2020 of 203 brown bears harvested during the previous fiscal year by results of tooth sectioning and age analysis by counting annuli.

# **1.3** Conduct aerial surveys to monitor movements and home ranges of radiomarked bears and to monitor population trends.

ACCOMPLISHMENTS:

- In Unit 20D we captured and radiocollared 7 bears with GPS collars in May. This required 58 hours of fixed-wing time to find the bears and 23 hours of helicopter time to capture the bears.
- We monitored movement of Unit 20D grizzly bears throughout the year via GPS collar location data.
- We conducted 6 aerial surveys in Unit 20D to track cub survival and check den entrance and emergence during April–May and September–October for 24 hours of fixed-wing flight time.

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

2.1 Monitor harvest through registration permit hunt reports, interviews with hunters, and analysis of sealing data.

And

2.2 Document human-caused mortality by taking data for bears presented for sealing, including bears killed though legal harvest, illegal hunting, defense of life or property, and vehicle collisions

And

### 2.3 Analyze drawing and registration permit harvest data collected.

ACCOMPLISHMENTS:

• We monitored the harvest of brown bears in Units 12, 19, 20, 21, 24, 25, 26B, and 26C primarily through data collected when bears were sealed, but also with 4 registration and 7 drawing permit harvest reports, field observations, interviews with successful hunters and analyses of data. Hunting seasons were 10- to 365-days long. Data were analyzed for 209 harvested brown bears (including 0 killed in defense of life or property and 3 'Natural Mortality or Unknown' harvest, and 37 harvested over bait) through this process. Harvest data were analyzed, and the results were applied to management planning and ongoing population assessment.

# **2.4** Collect data, determine sex, and extract a tooth for aging from bears presented for sealing by hunters

ACCOMPLISHMENTS:

• Premolar teeth for aging were collected from 180 harvested brown bears.

### 2.5 Monitor brown bear bait station permit distribution and harvest over bait.

ACCOMPLISHMENTS:

• We monitored distribution of approximately 775 brown bear bait stations throughout Units 19A, 19D, 20A, 20B, 20C, 20D north of the Tanana River, 20E, 20F, 21C, 21D, 24C, 24D, and 25D and analyzed their distribution in relation to roads, communities, brown bear harvest, and black bear bait stations.

**Objective 3: Habitat Enhancement and Assessment.** Assess brown/grizzly bear habitat directly or indirectly in specified areas of the state.

# **3.1** Monitor blueberry abundance through monitoring of permanent blueberry sample areas or through interviews with blueberry pickers and anecdotal evidence.

ACCOMPLISHMENTS:

• During July–August we assessed blueberry abundance at 20 permanent blueberry plots located in Units 12 and 20E.

# **3.2** Maintain a radiocollared sample of grizzly bears to evaluate distribution and habitat use.

ACCOMPLISHMENTS:

• We maintained a radiocollared sample of 11 radiocollared grizzly bears in Unit 20D to monitor distribution and habitat use.

• We inspected den sites of two radiocollared female grizzly bears.

## **Objective 4: Brown/Grizzly Bear Management with Public Participation and Outreach.**

# 4.1 Compile information and data for, or draft and finalize 5-year brown bear survey and inventory operational reports and plans for each Unit inhabited by brown/grizzly bears.

• Accomplishments: We compiled information and data in preparation for writing 7 fiveyear brown–grizzly bear Management Reports and Operational Plans for Units 12, 19, 20, 21, 24, 25, 26B and 26C. These reports and plans will be available at the following URL when completed:

http://www.adfg.alaska.gov/index.cfm?adfg=librarypublications.wildlifepublications&sor t=all&species=Brown+Bear&submit=Search.

# **4.2** Provide brown/grizzly bear information to state and federal regulatory processes on brown bear management.

ACCOMPLISHMENTS:

- We prepared the brown-grizzly bear portion of 2 Annual Intensive Management Reports for the Board of Game to comply with regulatory requirements for Intensive Management programs. See Section IV, publications, below.
- We communicated and coordinated with and attended meetings of 15 local Fish and Game Advisory Committees, the Alaska Board of Game, 3 Federal Regional Advisory Councils, the Federal Subsistence Board, Office of Subsistence Management, numerous local village councils and Native corporations, and the Wrangell-St. Elias Subsistence Resource Commission about brown bear management and to review and analyze regulation proposals for the Alaska Board of Game and the Federal Subsistence Board.

4.3 Respond to issues and public reports involving brown bears associated with conflict behavior, injuries, habituation, and bear-vehicle collisions to help alleviate such conflicts and inform the public about safety.

### and

4.4 Manage each brown/grizzly bear population with an emphasis on engaging the public in management goals and objectives through public meetings, working groups, educational materials, and incentive programs.

and

4.5 Work with local residents and businesses to reduce brown bear-human conflicts and minimize attractants that may lead to defense of life or property kills (DLP).

and

# 4.6 Educate the public on bear awareness, bear behavior and safety, and provide demonstrations of how to minimize attractants and/or use electric bear fences to reduce bear/human problems as requested.

ACCOMPLISHMENTS:

- Six area offices responded to and made recommendations in 27 reports of human–brown bear interactions.
- Staff educated the public on bear awareness and safety, used education and/or increased communication with the public to improve understanding of hunting regulations and the value of conserving brown/grizzly bear populations, and to obtain better harvest data through increased harvest reporting.

### 4.7 Develop or review population objectives for brown/grizzly bears in each of 6 areas.

ACCOMPLISHMENTS:

• Data and information from activities in objectives 1–4 were used by biologists in 6 area offices to review population and harvest objectives to determine whether each objective remained relevant during the current year and assessed whether harvest was impacting each population.

### 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 Brown Bear management report and plan, scheduled to be published in FY2021 (see objective 4.1, above.)

### III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.

No SDRs were submitted for this project.

Reports listed in objective 4.1 were expected to be published in FY2020, but were delayed due to biologist preparation for and attendance at the Alaska Board of Game meeting and a substantial amount of time responding with biological information for emergency requests to extend or close hunting seasons for all species (including brown bear) due to concerns about food shortage due to COVID-19 or spread of the disease among hunters in the field.

In addition to progress noted in section I, more money than expected was expended in travel and contractual, and less in supplies.

- 1. Travel
  - i. COVID-19 travel restrictions caused travel to capture brown bears to cost more than expected due to increased lodging costs.
- 2. Contractual

- i. Hourly helicopter and fixed-wing costs increased. Along with these increases, more time than expected was needed to capture 7 bears in Unit 20D due to high winds.
- 3. Supplies
  - i. We overestimated the cost of capture supplies needed in Unit 20D and the data collection supplies needed regionwide during sealing.

# IV. PUBLICATIONS

Brown bear portion of the Annual Report to the Alaska Board of Game on Intensive Management for Moose with Wolf, Black Bear, and Grizzly Bear Predation Control in Game Management Unit 19A. February 2020.

https://www.adfg.alaska.gov/static/research/programs/intensivemanagement/pdfs/2020\_gmu\_19a \_\_\_\_\_intensive\_management\_annual\_report.pdf

Brown bear portion of the Annual Report to the Alaska Board of Game on Intensive Management for Moose with Wolf, Black Bear, and Grizzly Bear Predation Control in Game Management Unit 19D East. February 2020. <u>https://www.adfg.alaska.gov/static/research/programs/intensivemanagement/pdfs/2020\_gmu\_19d</u> \_\_east\_intensive\_management\_annual\_report.pdf

No other publications were completed during the report period.

### V. RECOMMENDATIONS FOR THIS PROJECT

We recommend continued funding for this project in order to effectively survey, inventory and manage brown bear populations in Interior and Northeast Alaska.

Prepared by: Doreen Parker McNeill

Date: September 2020