Wildlife Restoration MULTI-YEAR GRANT INTERIM 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-R-12-2019

PROJECT NUMBER: P2.0

PROJECT TITLE: Wolf demography in the Fortymile Caribou Herd range following 20 years of

predator reductions in Upper Yukon-Tanana Predation Control Area (UYTPCA)

PERIOD OF PERFORMANCE: 22 Feb. 2019 – 31 March 2021

PERFORMANCE YEAR: 22 Feb. 2019 – 31 March 2020

REPORT DUE DATE: 29 June 2020

PRINCIPAL INVESTIGATOR: Danny Caudill and Torsten Bentzen, ADF&G

COOPERATORS: None.

Authorities: 2 CFR 200.328

2 CFR 200.301 50 CFR 80.90

I. PROGRESS ON PROJECT OBJECTIVES DURING PERFORMANCE YEAR

OBJECTIVE 1A: Estimate wolf survival in the study area.

ACCOMPLISHMENTS: We captured and radio-marked 32, 17, and 33 wolves in the spring of 2019, fall of 2019, and spring of 2020, respectively. We also located wolves from previous studies that were radio-marked in the study area and included them in our monitoring. In all, we monitored ~90 wolves from 35+ packs. We monitored these animals at least monthly to verify survival status. Fourteen mortalities were detected during the reporting period.

OBJECTIVE 1B: Estimate wolf productivity.

ACCOMPLISHMENTS: During survival monitoring flights (which in many instances occurred multiple times a month) we attempted to count all wolves associated with radio-marked wolves and classify the uncollared wolves by age. We also radio-marked 11 juveniles in the late fall (i.e. Oct.—Dec.) to aid in estimating recruitment. Department staff flew ~65 days in state aircraft during the reporting period to monitor survival, productivity, and pack size. Contract pilots were regularly used to augment department

counts and to assess observer variability. We are compiling and digitizing the data collected on these flights for future analyses.

OBJECTIVE 1C: Estimate wolf pack size.

ACCOMPLISHMENTS: Wolf pack sizes were recorded on each flight (survival or survey) when possible (i.e. wolves were in vegetation that allowed observation from an aircraft) as outlined in 1B accomplishments.

OBJECTIVE 2A: Wolf population estimate for territorial wolves in radio-marked packs.

ACCOMPLISHMENTS: We will use the monthly counts conducted in 1B, once the data are compiled and digitized, to estimate fall population size in marked packs. We will use the counts conducted in 2B to estimate the spring population size in marked packs once the data are compiled and digitized.

OBJECTIVE 2B: Wolf population estimate for territorial wolves in unmarked packs.

ACCOMPLISHMENTS: Because this was the first year of the study and we had limited data from marked wolves, we decided to survey the entire study area to estimate population size and locate unmarked packs. We generally followed the wolf survey guidelines of Gardner and Pamperin (2014). We had adequate snow conditions 3–6 & 11–15 March 2020 and attempted to survey the entire Upper Yukon-Tanana Predation Control Area (18,750 mi²). Six aircraft (1 Bellanca 8GCBC and 5 Piper PA-18s) flew each day 3–6 & 11 March and 8 aircraft (1 Bellanca 8GCBC and 7 Piper PA-18s) flew each day 12–15 March to complete the survey. In addition to the survey aircraft, a PA-18 and R-44 helicopter were used to capture unmarked wolves located by survey aircraft (see accomplishments 1A for capture details). We surveyed $\sim 17,150 \text{ mi}^2 (\sim 91\%)$ of the area and conducted sightability trials and pack counts on previously marked packs. Unmarked packs were counted and collars were deployed into the unmarked packs when possible. An additional ~1,200 mi² was surveyed by NPS staff concurrently during a separate study (total area surveyed between 2 agencies was ~98% of area). Inclement weather (mainly wind) kept us from surveying ~400 mi² (~2% of the area). Data from this survey are being compiled, cleaned, and digitized.

OBJECTIVE 3: Literature review, data analysis, reporting writing, and publication of results.

ACCOMPLISHMENTS: The principal investigators reviewed the literature and completed reports. Data was compiled, backed-up electronically, and entry into databases is ongoing.

II. SUMMARY OF WORK COMPLETED ON PROJECT TO DATE.

This is the first year of the project; accordingly, all accomplishments completed to date are outlined in the specific objective above.

III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.

None

IV. PUBLICATIONS

None during the reporting period.

V. RECOMMENDATIONS FOR THIS PROJECT

The project should continue as planned.

Prepared by: Danny Caudill

Date: 6/11/2020

Literature Cited

Gardner, C. L., and N. J Pamperin. 2014. Intensive aerial wolf survey operations manual for interior Alaska. Alaska Department of Fish and Game, Wildlife Special Publication ADF&G/DWC/WSP-2014-01, Juneau.