

**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-22

PROJECT NUMBER: P2.0

PROJECT TITLE: Ice Seals

PERIOD OF PERFORMANCE: July 1, 2017 through June 30, 2019

PERFORMANCE YEAR: July 1, 2017 - June 30, 2018; year 1 of a 2-year grant

REPORT DUE DATE: Submit to Coordinator September 24, 2018; due to FAC Sept 1, 2018

PRINCIPAL INVESTIGATOR: Mandy Keogh

COOPERATORS:

Authorities: 2 CFR 200.328
2 CFR 200.301
50 CFR 80.90

I. PROGRESS ON PROJECT OBJECTIVES DURING PERFORMANCE YEAR

OBJECTIVE 1: Investigate the relationship between diet, as determined by stable isotope analysis and health and reproduction of ice seals.

- a. Job/activity 1a. Process samples (claws, whiskers, and/or hair) for stable isotope signatures and the extraction and measurement of steroid hormones.
- b. Job/activity 1b. Compile data associated with archived tissues (location, morphometric, age, and reproductive status) and environmental variables (e.g. temperature, sea ice coverage).
- c. Job/activity 1c. Assess the relationships between stable isotope signatures, hormone concentrations (Job/activity 1a) and biological and environmental data (Job/activity 1b).

ACCOMPLISHMENTS: Work was done on Job/activity 1c and the manuscript "Examination of relationships between dietary stable isotopes and cortisol concentrations along the length of phocid whiskers" was revised and accepted for publication in Marine Mammal Science. No other work was done on this project during the reporting period.

II. SUMMARY OF WORK COMPLETED ON PROJECT TO DATE.

This project is in Year 1 of a 2-year project which initially included one objective. The focus of the effort during this first year was to revise and complete a manuscript related to Objective 1. Once the publication was accepted we re-evaluated the overall objective and the staff time supported by this project and determined that we could add an additional objective (no additional cost) and ensure that another dataset and manuscript could be completed. The second objective below was added in September 2018

OBJECTIVE 2: Investigate factors influencing heart rate during periods of diving, surfacing, and resting in phocid seals.

- a. Complete data analysis on factors influencing hear rate during diving, surfacing, and resting.
- b. Draft manuscript for submission in peer reviewed journal.

III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.

No significant Development Reports (SDR) were submitted during this performance year. A no-cost amendment was approved in September 2018.

IV. PUBLICATIONS

The paper “Examination of relationships between dietary stable isotopes and cortisol concentrations along the length of phocid whiskers” was accepted for publication in Marine Mammal Science but is not yet in press

V. RECOMMENDATIONS FOR THIS PROJECT

This project will continue for one more year. We are expecting a change in personnel on this project to take effect in October 15, 2018 which would impact Objective 1 of this project and lead to a reduced need for salary and potentially a change in focus. We will reevaluate Objective 1 on this project to determine if any changes or amendments should be requested.

Prepared by: PI

Date: 09/24/2018