PERFORMANCE REPORT

STATE: Alaska **GRANT NO.:** F-10-33

GRANT TITLE: Sport Fish Investigations in Alaska

PERIOD COVERED: July 1, 2017 – June 30, 2018

STUDY NO. AND TITLE: C-1-3 Freshwater Assessment Coordination

STUDY OBJECTIVES:

1. Coordinate and conduct a variety of fishery and habitat surveys in prioritized ponds and lakes in the Juneau area, as well as characterizing angling patterns (catch, harvest, effort) in the same locations.

2. Coordinate and conduct cutthroat trout abundance and length composition studies in prioritized lakes across Southeast Alaska.

3. Supervise and assist with the population of data related to the Southeast Alaska freshwater lakes into the Alaska Lake Database for all salmon, trout, and char species.

RESULTS/DISCUSSIONS:

Objective 1: Surveys to estimate trout, char, and salmonid abundance in the Juneau area occurred at 5 ponds and lakes during the reporting period. Lakes sampled included Crystal Lake (August 2017 and May 2018), Glacier Lake (August 2017 and June 2018), Moraine Lake (August 2017 and June 2018), Moose Lake (August 2017 and April/May 2018), and Twin Lakes (August 2017 and April 2018). Fish capture efforts at the lakes included a total of 421 salmonids being captured, which represented 5 species (Chinook salmon, coho salmon, sockeye salmon, Dolly Varden, and cutthroat trout). Volunteer fishing survey drop boxes were installed at one location at Twin Lakes and 7 locations adjacent to Crystal, Glacier, Moraine, and Moose lakes in an attempt to gage fishing effort, catch, and harvest. Two trail cameras (per lake) were installed at Crystal, Glacier, Moraine, and Twin lakes to similarly aid in gaging angling effort. Survey boxes and trail cameras remained in place during months when the lakes were ice free.

Water quality data was collected at all lakes at the time when fish sampling occurred. Water temperature data loggers were installed at Crystal, Glacier, Moraine, and Twin lakes in August 2016 and have remained in place to capture continuous water temperature data (i.e., during the entire period covered in this Performance Report).

Objective 2: A survey was initiated on Neck Lake of Prince of Wales Island to estimate the abundance and length composition of cutthroat trout. A marking event occurred May 22 to 31, 2018. Cutthroat trout were captured by angling, hoop and funnel traps. A total of 1,173 fish were captured and measured, of which 848 fish $\geq$180 mm fork length were tagged.

Objective 3: Supervision and assistance related to populating the Alaska Lakes Database (ALDAT) with data from Southeast Alaska freshwater lakes was restricted to initial data entry, Quality Assurance, and Quality Control (QA/QC) measures that occurred after each lake sampling event identified in Objective 1. Interim spreadsheets were used to store lake sampling data, which will eventually be organized and imported into ALDAT specific spreadsheets for final population in the database.

FINAL REPORT STATUS:
This performance report constitutes the final report of activities for study C-1-3 during the F-10-33 grant period.

PREPARED BY: Jeff Nichols **DATE:** August 5, 2018