

# 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:** R-3-12 Stock assessment of lake trout in Chandler Lake

## STUDY OBJECTIVES:

The long term goal of this project will be to obtain an estimate of abundance of lake trout in Chandler and Little Chandler lakes. This study will span multiple reporting years and will use two sample mark-recapture techniques to estimate abundance of lake trout. Lake trout will be captured and tagged during summer 2017 for the marking event and captured and examined during summer 2018 for the recapture event. Weights of captured lake trout will also be used to update the lake trout yield potential based on a lake area model. This information will be used to evaluate existing regulations and harvest levels to ensure sustainability of the population.

The objectives for stock assessment of lake trout in Chandler Lake for this reporting period are to:

1. Capture and tag 230 lake trout greater than 400 mm fork length;
2. Measure all captured lake trout for fork length; and,
3. Weigh all captured fish for weight.

## RESULTS/DISCUSSIONS:

### R-3-12:

**Objective 1 :** The first event of a two-year mark-recapture experiment was initiated on 3 July 2017 and sampling was completed on 21 July. A total of 606 lake trout greater than 400 mm in length were tagged. The raw data has been entered into excel but no analyses have taken place at this time.

**Objective 2:** All 606 fish were measured to the nearest mm fork length (FL). The smallest captured fish was 358 mm FL and the largest was 900 mm FL. The mean length of all sampled fish was 536 mm FL.

**Objective 3:** Over 300 fish were weighed during July 2017. It was decided that this sample size was sufficient for the duration of the study. If it is deemed that size selectivity occurred during the first event but not the second, a length weight relationship would be calculated and applied to the lengths of fish sampled in the second event.

**FINAL REPORT STATUS:**

**R-3-12:**

This Performance Report serves as the final report for these objectives.

**PREPARED BY:** Corey Schwanke, Fishery Biologist and James W. Savereide, Regional Research Supervisor;

**DATE:** September 1, 2018