

# Pilot Station Extended Field Operations

## R&M# 19-09

**Project Proponent:** Bruce McIntosh, Alaska Dept. of Fish and Game – Commercial Fisheries Division, 1300 College Rd., Fairbanks, AK 99701, bruce.mcintosh@alaska.gov

**Project Partners:** Current partners in the project include the Association of Village Council Presidents (AVCP) and USFWS, who work together to provide a fisheries technician. Additionally, the Yukon Delta Fisheries Development Association (YDFDA) funds early start-up so that sonar can be running typically by June 1 each season.

### 1. Introduction:

#### *Objectives:*

The primary objective of this project was to increase the accuracy of fall chum salmon passage estimates generated at the Pilot Station sonar project by extending field operations one week, from August 31 until September 7. This was to provide managers with greater confidence in both abundance and MSA estimates for the late season fall chum salmon run. This proposal addressed the following priorities identified in the 2009 Request for Proposals:

- Assess and achieve fishery management objectives
- 3. Improve in-season run size and stock specific estimates at the mouth of the Yukon River.
- 2. Identify stock composition of salmon runs through genetic stock identification.
- 6. Refine in-season border passage assessment/estimates.

#### *Summary:*

In 2009 the crew began working to set up camp on May 25 and the sonar was in operation continuously on both banks from June 1 through September 7, with camp breakdown completed by September 10.

Fish passage estimates at Pilot Station are based upon a sampling design in which the sonar equipment is operated daily during three 3-hour intervals, and drift gillnets are fished twice each day between sonar periods to apportion the sonar estimates to species. An assortment of gillnets, 25 fathoms long with mesh sizes ranging from 2.75 in to 8.5 in, were drifted through the sonar sampling areas twice daily between sonar data collection periods.

Cumulative passage estimates for each targeted species for the period September 1 through September 7 were 21,515 fall chum salmon, 21,262 coho salmon, and 19,202 other fish species. Drift gillnetting during this period resulted in a catch of 187 fish including 24 fall chum salmon, 126 coho salmon, and 37 other species. Genetic samples were taken from chum salmon. Any captured fish not successfully released were distributed daily to nearby residents in Pilot Station.

This project provided daily and seasonal estimates of salmon passage by species for fall chum and coho salmon, therefore the project met its objectives satisfactorily. Seasonal estimates of passage are compared with other estimates of run strength such as total catch and escapement for fall chum and coho salmon and test fishery indices. The increased accuracy of the overall estimate of fall chum salmon was beneficial to fishery managers and met the goals and objectives of the R&M extended operations funding.

**2. Study Area:** Yukon River Mainstem; vicinity of Pilot Station