

EVOSTC ANNUAL PROJECT REPORT

Project Number: 10100132

Project Title: PWS Herring Survey: Assessment of Juvenile Herring Abundance and Habitat Utilization

PI Name: Richard E. Thorne

Time period covered: Oct 1, 2009 to August 31, 2010

Date of Report: August 25, 2010

Report prepared by: Richard E. Thorne

Project website (if applicable): pwssc.org

Work Performed:

The objectives of the project are to improve understanding of habitat utilization by juvenile herring, especially age 0, and to help identify candidate sites that could be potentially used for supplementation efforts.

Four cruises were successfully completed: (1) a juvenile herring survey of five locations in November 2009, (2) a juvenile herring survey of the same five locations in March 2010, (3) an adult herring survey in March/April 2010 and a juvenile herring survey in August 2010. The first two juvenile surveys were conducted in conjunction with several other survey projects and covered Simpson Bay, Eaglek Bay, Lower Herring Bay, Whale Bay and Zaikof Bay. The adult herring survey was conducted in cooperation with Alaska Department of Fish and Game (ADF&G) and focused on prespawning herring concentrations in Port Gravina and Port Fidalgo. The summer juvenile survey was coordinated with aerial surveys conducted by Evelyn Brown. It included testing of a new transducer unit that is towed between the survey boat and a small skiff in order to detect fish near the surface (Fig. 1). Basic analysis of all but the summer survey has been completed. Fig. 2 compares fish densities between fall and spring for the five sites.

Future Work:

An expanded survey effort of 8-9 locations is scheduled for the second year of the project, beginning in November 2010. The second year will also include an adult herring survey and a summer juvenile herring survey.

Coordination/Collaboration:

This project is one of several survey efforts coordinated under the Prince William Sound Herring Survey Program.

Community Involvement/TEK & Resource Management Applications:

We worked closely with ADF&G on surveys and samples. The overall PWS Herring Survey Program has an extensive community involvement, including the use of local fishermen to obtain samples.

Information Transfer:

Project activities were described in recent publications of the Breakwater (Prince William Sound Science Center newsletter) and the Delta Sound Connections. PWSSC webpage (www.pwssc.org) has been updated with recent research activities.

Budget:

Budget expenditures are proceeding as projected.

Meetings attended

A poster on juvenile herring surveys in Prince William Sound was given at the Alaska Marine Science Symposium in January 2010.

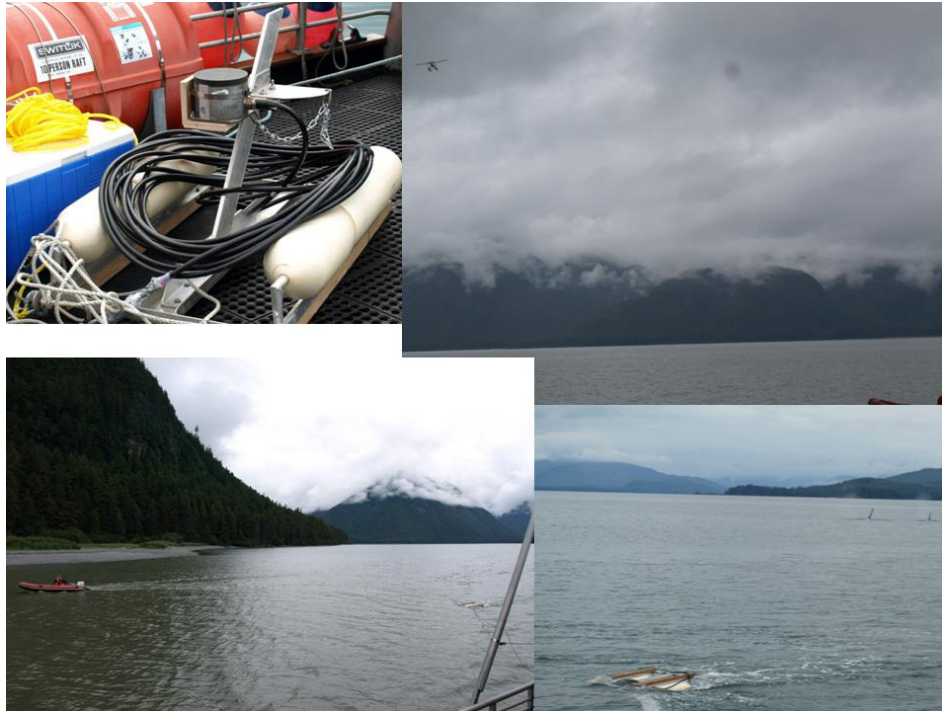


Figure 1. Pictures from summer cruise. Above left, new floating transducer system on deck (upside-down). Above right, Evelyn Brown's airplane flies over our operation. Below left, the new unit towed between the boat and skiff. Below right, orca whales in the background of the towed surface unit.

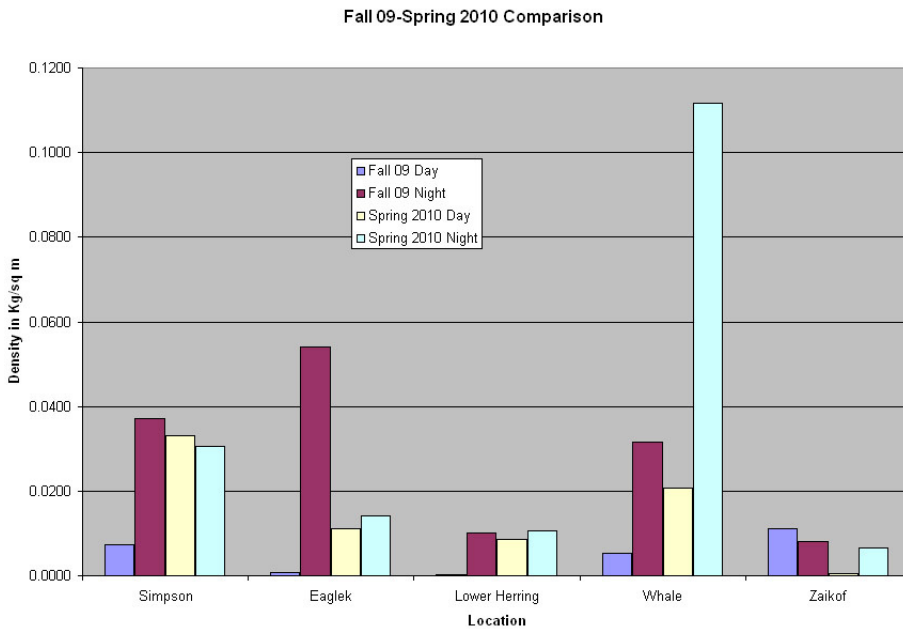


Figure 2. Comparison of fish abundance between November 2009 and March 2010 at the five survey sites.