**CRUISE REPORT**

Cruise Number: DY13-06

**Ship:**

NOAA Ship Oscar Dyson

**Area of Operations:**

Gulf of Alaska

**Itinerary:**

**Date depart / port:** May 15, 2013 / Dutch Harbor, AK

**Date arrive / port:** June 1, 2013 / Kodiak, AK

**Participating organizations:**

NOAA - Alaska Fisheries Science Center (AFSC)

**Chief Scientist:**

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**Personnel:**

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**Cruise Objectives:**

The objectives of this cruise were to conduct an ichthyoplankton survey and process studies in the region between the Shumagin Islands and Shelikof Strait and then from SE Kodiak to the Kenai Peninsula so that we could estimate the abundance, transport, and factors influencing the survival of young walleye pollock larvae. We also occupied six of the stations on Line 8 to continue our 27-year time series of environmental and biological conditions in Shelikof Strait. In addition to this sampling, 43 stations selected from the grid for the GOA-IERP research project were occupied on the shelf break as well as on the NE side of Kodiak Island to acquire larval fish of five target species (sablefish, walleye pollock, Pacific cod, arrowtooth flounder, and Pacific Ocean perch).

**Summary of Operations:**

**Operation** **Tows**

20cm bongo (20BON) 105

60cm bongo (60BON) 226

Seabird SeaCAT CTD (CAT) 226

CalVET 18

CTD without bottle samples (CTD) 2

CTD with bottle samples (CTDB) 12

Neuston (NEU) 43

**Samples Collected** **Tows** **Number**

SeaBird SeaCat CTD (CAT) 226 226

Extracted chlorophyll (Chlor) 6 36

SeaBird CTD (CTD) 14 14

Stimulated fluorescence collected during CTD casts (Fluor) 14 14

Larval pollock collected for otolith analysis (L-Oto) 226 5004

Microzooplankton samples preserved in formalin (MZ) 6 36

Nutrient samples collected from CTD casts (Nut) 6 64

Photosynthetically Active Radiation data collected during CTD casts 14 14

(PAR)

Quantitative tow preserved in formalin (QTowF) 226 335

Rough count of pollock larvae (RCountL) 226 35004

**Summary of Cruise:**

**Narrative:**

We left Dutch Harbor at 0300 on May 15 (GMT time) and arrived at our first grid station, GR135, at approximately 0540 on May 17. The ichthyoplankton survey was conducted from the Shumagin Islands, through Shelikof Strait, and then from SE Kodiak to the Kenai Peninsula. A total of 226 stations were occupied. The standard gear for this survey was 20/60-cm bongos (SOI 3.2.2) with 0.153/0.505-mm mesh netting. A FastCat was mounted above the bongo to provide depth, temperature, and salinity data. Tows were deployed to 100 meters or 10 meters off the bottom where water depth was shallower. When larvae were collected for the pollock condition study, a CalVET tow was conducted to collect small zooplankton. The neuston gear was deployed at selected stations for the GOA-IERP project after the standard bongo was completed. We arrived at the first Line 8 station and began sampling at 1660 on May 25. After all six of the Line 8 stations were completed, we resumed sampling at designated grid stations until it was necessary to head into port on June 1.

The samples collected from the 60-cm bongos were processed in the following manner. Net 1 was preserved in 1.8% formaldehyde, buffered with sodium borate, and boxed for shipment at the end of the survey. Net 2 samples were sorted for all fish larvae and preserved in 100% ethanol and/or frozen in the -80 °C freezer. Net 1 of the 20-cm and 60-cm bongo samples collected from Line 8 were preserved in 1.8% formaldehyde and buffered with sodium borate.

**Days Lost to Weather:**

1.0 (after Line 8 operations)

**Days Lost to Equipment Failure:**

None

**Recommendations:**

None

**Acknowledgments:**

The scientific party would like to acknowledge the hard work and support of the officers and crew of the Oscar Dyson.

**Attachments:**

Figure 1. Station Map



Table 1. Cruise Summary

The list of cruise operations has not been included in this cruise report at this time due to temporary problems with new database program.