Project #: B91

Title: Eastern Bering Sea shelf crab and groundfish bottom trawl survey

Principal Investigator(s) and Recipient Organization(s):
Robert Lauth
NOAA/AFSC/RACE
7600 Sand Point Way NE
Seattle, WA 98115
bob.lauth@noaa.gov

Contract Period and Amount of Funding:
This survey is funded with in-kind money and will play a supporting role from 2008 to 2010 by providing biological and environmental survey data to other PI's being funded by BSIERP.

Report Period:
1 April 2008 through 30 September 2008

Report Date:
29 September 2008

Lead Author of Report:
Robert Lauth

Proposed timeline and milestones within report period:

- Charter two commercial fishing vessels to conduct a bottom trawl assessment survey of groundfish and invertebrate resources on the eastern Bering Sea shelf to complete standardized area-swept trawl survey of 376 sampling stations positioned within a 20 nm X 20 nm grid pattern; May-July 2008
- Edit survey data and generate standardized area-swept estimates of abundance for relevant invertebrate or fish taxa, and synoptic environmental dataset that includes profiles of light intensity, water temperature, and salinity for each trawl station; August-September 2008
- Prepare NPRB semi-annual report (Apr-Sep, due Oct 1); September 2008

Project Summary: The Alaska Fisheries Science Center conducts annual bottom (benthic) trawl surveys to monitor the condition of the eastern Bering Sea continental shelf epi-benthos. This survey is funded with in-kind money and will support BEST-BSIERP by providing biological and environmental survey data to other PIs in the program.

Progress Summary: Milestones for this period were met. The FV *Arcturus* and *Aldebaran* conducted 396 bottom trawls between 29 May and 28 July to complete the standard survey of the eastern Bering Sea shelf. Data collections included: 162,099 length measurements representing 22 fish taxa; 6,756 age structures representing 12 fish taxa; 6,730 stomach samples representing 12 fish taxa, and 3,442 pathobiology samples from 6 different fish and invertebrate taxa. Also collected was a synoptic environmental dataset that included profiles of light intensity, water temperature, and salinity for each trawl station. The FV *Aldebaran* made underway surface temperature, salinity, nitrate, chlorophyll and dissolved oxygen measurements during the survey. In addition, temperature and salinity profiles were collected from most of the bottom trawl hauls by attaching a CTD to the bottom trawl headrope. Survey data were edited and standardized area-swept estimates of abundance for relevant invertebrate and fish taxa were generated.

Lessons learned and project adjustments: Not applicable

Integration activity:
Physical and biological data and results were provided to the following BSIERP projects:

1. B62 Fish forage distribution and ocean conditions
2. B68 Retrospective analysis of patterns in productivity of fish, seabirds, and marine mammals in the eastern Bering Sea ecosystem

Education and Outreach: Not applicable

Next year's Work plan: At the end of your progress report, please update your work plan for the coming year. In particular, add detail for 2009. Contact Mike Sigler if you have any questions in regards to your work plan. Follow this template:

BSIERP B91, Eastern Bering Sea shelf crab and groundfish bottom trawl survey**,** Robert Lauth, bob.lauth@noaa.gov, (206) 526-4121

2009-2012 Tasks, Assignments, Timeline

What	*Who*	*Start (2009)*	*Other key dates*
2009 eastern Bering Sea continental shelf crab and groundfish bottom trawl survey	**Lauth, Robert**	May-July 2009	Data delivery October 2009
2010 eastern Bering Sea continental shelf crab and groundfish bottom trawl survey	**Lauth, Robert**	May-July 2010	Data delivery October 2010