

EVOSTC ANNUAL PROJECT REPORT

Project Number: 10100624

Project Title: *Measuring Interannual Variability in the Herring's Forage Base from the Gulf of Alaska*

PI Name: *Alexander Bychkov and Sonia Batten*

Time period covered: *Jan 15th 2010 to August 27th 2010*

Date of Report: *Aug 27th 2010*

Report prepared by: *Sonia Batten* ...

Work Performed:

The initial period of this project has focused on sample acquisition and initial processing, which is currently ongoing. Sampling periods so far were: 10th-13th April, 13th-16th May, 12-15th June, 15-18th July, 14-17th August. There was some loss of samples on the northern section of the April transect due to mechanical failure and in June all 3 sections of the tow failed. New gear was shipped out to replace it and the July tows were fully successful. Samples have not yet been received from August and September sampling is in preparation.

The first samples from spring have been processed and although a larger proportion remain to be processed, plus quality control methods applied, early indications are that the zooplankton biomass on the Alaskan Shelf in spring 2010 was close to the average value recorded in previous years (2009 values were the lowest recorded in several months, for comparison)

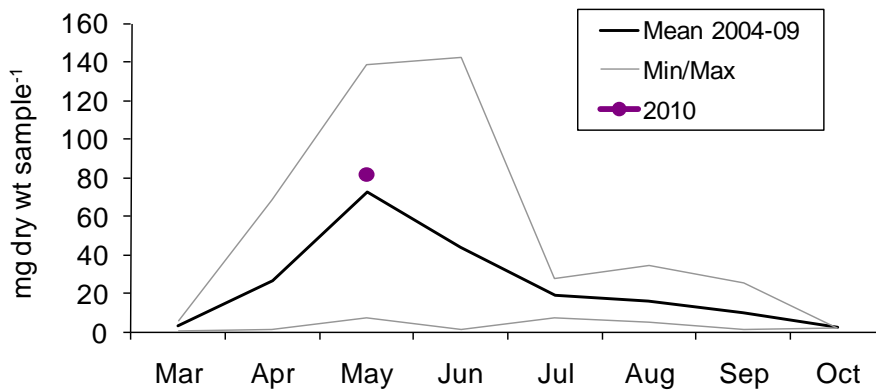


Figure 1. Provisional mean zooplankton biomass from May 2010 on the Alaskan Shelf, together with the mean, min and max from 2004-2009

Future Work:

The final sampling for 2010 will take place in September (~15th-19th) and sample processing will be ongoing for the rest of this year. The equipment will be returned to SAHFOS after the final tow for an annual overhaul and shipped out again in early 2011. The first analysis of 2010 data should begin at the end of the year. The only change we anticipate to the proposal schedule is that the personnel at Prince William Sound Science Centre have asked to withdraw from the servicing from 2011, because of other commitments. During winter and early spring we will therefore be seeking a local replacement, and will provide the necessary training. There will be no additional budget required. In the event that a replacement cannot be trained in time for spring 2011 field sampling to start, then the Canadian

technician will meet the ship at its Tacoma, WA, port, unload the samples and service the gear there. Again, there will be no additional budget requested and we don't anticipate any impact on the sampling schedule.

Coordination/Collaboration:

Will begin shortly

Community Involvement/TEK & Resource Management Applications:

The samples have been unloaded and the gear serviced each month by personnel at PWSCC, Valdez. Samples were collected by the officers and crew of the M/V Horizon Kodiak.

Information Transfer:

a. Publications

Batten, S.D. (in press) Continuous Plankton Recorders in the North Pacific Ocean, McGraw-Hill Yearbook of Science and Technology 2011.

The following paper was prepared using data collected previously:
Roberta C. Hamme, R.C., Webley, P.W., Crawford, W.R, Whitney, F.A., DeGrandpre, M.E., Emerson, S.R., Eriksen, C.C., Giesbrecht, K.E., Gower, J.F.R, Kavanaugh, M.T., Peña, M.A., Sabine, C.L., **Batten, S.D.**, Coogan, L.A., Grundle, D.S., Lockwood, D. (in press). Volcanic ash fuels anomalous plankton bloom in subarctic Northeast Pacific. *Geophysical Research Letters*,

b. Conferences attended

The annual Marine Science in Alaska Symposium was attended by S. Batten in January 2010. She gave an oral presentation entitled "A decade of change in the Alaska Gyre: Comparison of three NE Pacific zooplankton time series", Mackas, Batten and Hopcroft.

c. Information transfer

CPR data were also contributed to i. the Canadian Department of Fisheries and Oceans "State of the Ocean" meeting (February 2010) and report, ii. to the PICES North Pacific Ecosystem Status Report and iii. in August 2010 to NOAA's Ecosystem Considerations report to be published this fall:

i. Batten, S.D. 2010. Mesozooplankton in the Gulf of Alaska in 2009: In transition? published on pages 42-43 in Crawford, W.R., and J.R. Irvine (editors). 2010. State of physical, biological, and selected fishery resources of Pacific Canadian marine ecosystems in 2009. DFO Can. Sci. Advis. Sec. Res. Doc. 2010/053. viii + 137 p. http://www.dfo-mpo.gc.ca/CSAS/Csas/Publications/ResDocs-DocRech/2010/2010_053_e.pdf

ii. Batten et al., Oceanic Region in: S.M. McKinnell and M.J. Dagg. 2010. Marine ecosystems of the North Pacific Ocean 2003-2008. PICES Special Publication 4, 393 p.

iii. Batten, S.D. Continuous Plankton Recorder data from the Northeast Pacific (in press)

<http://access.afsc.noaa.gov/reem/ecoweb/Index.cfm>

Budget:

No changes