

EVOS ANNUAL PROJECT REPORT

Project Number: 02624

Project Title: A CPR-Based Plankton Survey Using Ships of Opportunity to monitor the Gulf of Alaska

PI Name: Sonia Batten & David Welch

Time Period Covered by Report: December 2001 to August 2002

Date of Report: 26th August 2002

1. Work Performed:

The table below describes the sampling carried out so far in this field season, the status of the sample processing and any issues/problems that have been encountered.

Transect	Date of sampling	Status of sample processing	Comments
Prince William Sound to California	7-11 th April	All samples processed. Undergoing QC	No problems
	28 th May – 8 th June	25% samples processed	Ship diverted to Port Angeles for repairs so transect was further east than usual.
	16-17 June & 21-25 th June	Samples unloaded and examined. Undergoing allocation	Short break in sampling as vessel went into port at San Francisco. Gear failure on one sub-section meant loss of samples (estimate about 12% loss)
	29 th July-3 rd August	Samples unloaded and examined	No problems
	Final transect still to be sampled		Originally scheduled for late August, but vessel now in dry dock until mid-September. Will sample as soon as vessel back on route.
Vancouver to Japan	1-12th June	Samples awaiting shipment to UK	6 of the 7 subsections were completed with no problems. Entanglement of propeller with floating debris caused loss of some sampling on one subsection (estimate about 7% loss)

This year saw more than usual last-minute scheduling changes of the Polar Alaska. Frequent communication enabled us to re-organise sampling to try to achieve the optimum spacing of transects. However, the detour to Port Angeles for repairs during the May/June transect meant that this transect was further east than the regular route. Since

June is the 'key' sampling month, when both transects are sampled, we decided to bring forward the July transect and sample in late June instead so that at least one June transect would be along the regular route.

Mechanical failure was minimal – about average for regular CPR operations with so far ~93% of expected sampling achieved.

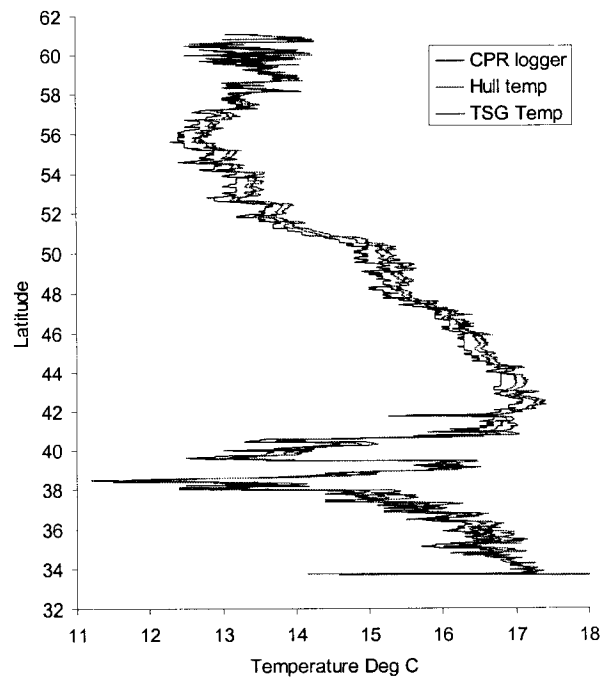
Data from the first transect are expected to be available within a few weeks.

2. Future Work:

The final transect has still to be sampled, owing to the dry-docking of the vessel in Korea from early August to mid September. We will carry out this transect as soon as possible but it will be about 4 weeks later than originally planned. Collaboration (see below) and data analysis will be ongoing. Two papers will be given at the Annual PICES meeting in October 2002.

3. Coordination/Collaboration:

We are collaborating with Project 02614, where a thermosalinograph was fitted to the Polar Alaska to obtain salinity, temperature and chlorophyll data. This was fitted somewhat later than planned and the first sampling where a CPR was simultaneously towed occurred between July 29th and August 3rd. We fitted a temperature sensor to the CPR when we learnt of the delay in installing the TSG, which recorded data for the 2nd-4th transects. A comparison of the temperature records from the CPR-logger, the TSG and a hull mounted sensor from this 4th transect are shown (right) and give very similar results. Although the salinity data will be more useful in describing hydrodynamic structure this plot reveals that the CPR towed behind in the wake of the vessel still samples the same structures as at the head of the vessel.



Temperature along the Prince William Sound to California transect as measured by a logger on the CPR, a hull mounted sensor and a thermosalinograph sampling the intake water

4. Community Involvement/TEK & Resource Management Applications:

N/A

1. Information Transfer:

(a) Publications:

Batten, S.D., Welch, D.W., and Jonas, T. (In press). Latitudinal differences in the duration of development of *Neocalanus plumchrus* copepodites. (Fisheries Oceanography)

(b) Conferences and workshops:

January 2002. EVOS Annual Workshop. 2 presentations – Session III ‘*What 3 years of ocean sampling using ships of opportunity can tell you*’, lunchtime ‘*What 50 years of ocean sampling using ships of opportunity can tell you*’

April 2002. EVOS/PICES workshop on Voluntary Observing Vessels.

June 2002. ASLO summer meeting. Presentation ‘*Large scale interannual changes in the open ocean zooplankton community of the NE Pacific*’

6. Budget:

Actual expenditures have so far matched budgeted expenditures.

Further funding was obtained during 2002 from the North Pacific Research Board (\$150,000). This will be used to sample both transects in the Fall and Winter of 2002 to acquire baseline abundance data from this time of the year. A pilot exercise was also undertaken on the June Vancouver to Japan transect where a marine bird and mammal observer was on board the vessel as the CPR was towed. Further data analysis will also be undertaken with this support through June 2003. We are submitting a new proposal to EVOS (GEM) for additional support for field sampling in 2003 and 2004.



Signature of PI: _____

Project Web Site Address: <http://www.pices.int/Projects/projects.asp> and
www.npm.ac.uk/sahfos/sahfos.html _____

Sandra Schubert

From: Katharine Miller [katharine_miller@oilspill.state.ak.us]
Sent: Wednesday, August 28, 2002 10:50 AM
To: 'Sandra Schubert'
Subject: RE: Annual Report project 02624

Phil and I have read the report, and it is great. No problems. Wish all our projects would do such a thorough job - must be the British influence!

Katharine B. Miller
Science Coordinator
Exxon Valdez Oil Spill Trustee Council
441 W 5th Avenue, Suite 500
Anchorage, AK 99510
phone: (907) 278-8012
fax: (907) 276-7178

-----Original Message-----

From: Sandra Schubert [mailto:sandra_schubert@oilspill.state.ak.us]
Sent: Monday, August 26, 2002 1:47 PM
To: Katharine Miller
Subject: RE: Annual Report project 02624

Sonia's right that technically an annual report wasn't due from her (since her project was funded as a 1-year project with a final report due 4/15/03). BUT I propose we handle this like an "official" annual report anyway - which means:

1. I will record report as received.
2. You and Phil will review report and let me know if it is OK.
3. Once OK'd, I will (a) record as "accepted, (b) file a paper copy of the report in the project file and © forward to Bob W. for posting on web page.

-----Original Message-----

From: Katharine Miller [mailto:katharine_miller@oilspill.state.ak.us]
Sent: Monday, August 26, 2002 1:01 PM
To: Sandra Schubert
Subject: FW: Annual Report project 02624

<< File: Annual report 2002.doc >>

Katharine B. Miller
Science Coordinator
Exxon Valdez Oil Spill Trustee Council
441 W 5th Avenue, Suite 500
Anchorage, AK 99510
phone: (907) 278-8012
fax: (907) 276-7178