

EVOSTC ANNUAL PROJECT REPORT

Recipients of funds from the *Exxon Valdez* Oil Spill Trustee Council must submit an annual project report in the following format by **Sept. 1** of each fiscal year for which project funding is received (with the exception of the final funding year in which a final report must be submitted). **Please help ensure that continued support for your project will not be delayed by submitting your report by Sept. 1.** Timely receipt of your report allows more time for court notice and transfer, report review and timely release of the following year's funds.

Satisfactory review of the annual report is necessary for continuation of multi-year projects. Failure to submit an annual report by **Sept. 1** of each year, or unsatisfactory review of an annual report, will result in withholding of additional project funds and may result in cancellation of the project or denial of funding for future projects. **PLEASE NOTE:** Significant changes in a project's objectives, methods, schedule, or budget require submittal of a new proposal that will be subject to the standard process of proposal submittal, technical review, and Trustee Council approval.

Project Number: 10100132A

Project Title: Prince William Sound Herring Survey: Plankton and Oceanographic Observation

PI Name: Robert W. Campbell

Time period covered: Oct 1.2009 - Sept. 1 2010

Date of Report: August 27, 2010.....

Report prepared by: Robert W. Campbell

Project website (if applicable):

Work Performed: *Summarize work performed during the reporting period, including any results available to date and their relationship to the original project objectives. Explain deviations from the original project objectives, procedural or statistical methods, study area or schedule. Also describe any known problems or unusual developments, and whether and how they have been or can be overcome. Include any other significant information pertinent to the project.*

Rob Campbell participated in the November 2009 juvenile herring survey aboard the F/V Montague, both to conduct fish sampling for the various subprojects requiring them, and to begin the plankton/oceanographic data collection. A second cruise was done aboard the F/V Alena K in January 2010, and five more in April, May, June, July and August aboard the M/V New Wave.

Deviations to objectives, methods, study area or schedule

No deviations have been made from the objectives, methods or study area. The project is slightly behind schedule in terms of the analysis of the plankton samples, primarily due to staffing problems. The use of the Polish Plankton Sorting Center in Szczecin, Poland was investigated, but it was decided to try to keep the effort local. A new technician, Laurel McFadden, was trained in plankton ID in July, and sample analysis is ongoing. It is expected that we will have caught up on the samples by the second quarter of FY11. Analysis of all other samples (nitrate, phosphate, silicate, and chlorophyll) have been completed up to the July 2010 cruise. The samples from the August cruise (August 23-25) will be analyzed in the near future.

Problems and developments

It was originally planned to include the plankton/oceanography work during the Autumn and Spring juvenile herring surveys. We found during the November 2009 survey that more time is required for

herring and predator sampling than was anticipated, and because the ship used for those surveys is a displacement hull vessel (and limited to ~9 knots), too much time would be lost to steaming between stations. Those surveys now focus on herring and predator work, and the oceanography/plankton sampling will be done on a separate vessel (but jointly with the herring surveys, as much as is possible).

Finding local vessels for charters has been an ongoing problem, the local fleet is almost exclusively fishing vessels, and they have no interest in chartering during the fishing season. In the winter, captains are not always available, and a successful sortie requires both a good weather window and a willing and available captain. To deal with that continuing problem, the PWS Science Center acquired a vessel, the M/V New Wave, in March 2010. Getting the vessel to Cordova was a challenge in late winter (the vessel was purchased in Kasilof), and there were some initial mechanical problems (a blown engine in April), but the vessel has been on-line since then, and cruises have been conducted every month as planned. It is expected that having a vessel available in the winter will allow us to make maximum use of breaks in the weather to conduct surveys.

A mechanical failure in one of the outdrives of the New Wave during July 2010 ended the cruise early, with stations missed in Whale and Eaglek Bays, and a lost sampling bottle during the August 2010 cruise lead to only surface water samples being collected in Whale and Eaglek bays.

Future Work: Summarize work to be performed during the upcoming year, if different from the original proposal. Describe any proposed changes in objectives, procedural or statistical methods, study area or schedule. *NOTE: Significant changes in a project's objectives, methods, schedule or budget require submittal of a new proposal subject to the standard process of proposal submittal, technical review and Trustee Council approval.*

No changes are planned to the objectives outlined in the proposal. Analysis of the plankton samples has fallen behind, we will play catch-up into the upcoming year. Some of the ship time allocated earlier in the year was not used, so it is intended to use that time to better capture the autumn bloom, as weather allows.

Coordination/Collaboration: Describe efforts undertaken during the reporting period to achieve the coordination and collaboration provisions of the proposal, if applicable.

A joint cruise was done with Evelyn Brown ("PWS herring survey: Sound Wide Juvenile Herring, Predator, and Competitor Density via Aerial Surveys") in July. A custom camera mount was fabricated for the New Wave, and it was used to ground truth aerial observations of fish schools. The system worked very well: Evelyn was able to vector the vessel in to the schools by radio, and the camera was dropped in and then maneuvered to stay in the school as much as possible. Video was taken for several fish schools in Simpson Bay and Zaikof Bay. Photos and video from that trip are available on the PWSSC blog (<http://www.pwssc.org/news/archives/73>).

Although not in the proposal, there has also been coordination with other projects as well. Several Oil Spill Recovery Institute (OSRI) CTD stations in PWS were visited during the August cruise. As well, live plankton has been collected during the cruises for other researchers for experimental uses. Mixed plankton was sent to Dr. Marjorie Brooks (Southern Illinois University Carbondale) for experiments on UV effects on CDOM secretions, and bioluminescent *Metridia* copepods were sent to Dr. Linda Chun (Harvard) for constructing cDNA libraries of the luciferase gene.

Community Involvement/TEK & Resource Management Applications: Describe efforts undertaken during the reporting period to achieve the community involvement/TEK and resource management application provisions of the proposal, if applicable.

Results and updates from this first year's work have been disseminated in articles in the local paper, on local radio, and updates to the PWSSC blog, in coordination with Scott Pegau's outreach activities. Lindsay Butters from PWSSC was in communication with John Johnson of the Chugach corporation to coordinate an educational program and a visit by Rob Campbell to the Spirit Camp at Nuchek, but John felt that this year's schedule was too full. We will coordinate our visit with John in the upcoming year.

Information Transfer: List (a) publications produced during the reporting period, (b) conference and workshop presentations and attendance during the reporting period, and (c) data and/or information products developed during the reporting period. *NOTE: Lack of compliance with the Trustee Council's data policy and/or the project's data management plan will result in withholding of additional project funds, cancellation of the project, or denial of funding for future projects.*

No publications or presentations were done during the reporting period; as outlined in the proposal, the intention is to have at least one annual cycle covered before beginning the analysis. Data is being archived in a consistent format and is available to all members of the project.

Budget: Explain any differences and/or problems between actual and budgeted expenditures, including any substantial changes in the allocation of funds among line items on the budget form. Also provide any new information regarding matching funds or funds from non-EVOS sources for the project. *NOTE: Any request for an increased or supplemental budget must be submitted as a new proposal that will be subject to the standard process of proposal submittal, technical review, and Trustee Council approval.*

There have been no significant differences or problems between actual and budgeted expenditures, beyond delays in charging some of the salary allocations (from the lag between the planned and actual start date, and because of the delay in processing plankton samples described above), and some as yet unspent charter funds. We will work to address those delays as quickly as possible. The Alaska Ocean Observing System (AOOS) has shared some ship time with the project, and is also funding the installation of a thermosalinograph system aboard the PWSSC vessel, which will improve measurements of surface salinity, temperature, turbidity and chlorophyll fluorescence.

We can accept your annual report as a digital file (Microsoft Word or WordPerfect), with all figures and tables embedded. Acrobat Portable Document Format (PDF) files (version 4.x or later) are also acceptable; please do not lock PDF files or include digital signatures.

Please submit reports electronically in [ProjectView](#) or by email to catherine.boerner@alaska.gov. Also, please be sure to post your annual report on your own website, if you have one.



*We appreciate your prompt submission of your annual report
and thank you for your participation.*