

## ***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:*** ..... 10100132

***Project Title:***..... *PWS Herring Survey: Community Involvement, Outreach, Logistics, and Synthesis*

***PI Name:*** ..... *W. Scott Pegau*

***Time period covered:***..... *September 2011 thru August 2012*

***Date of Report:*** ..... *August 16, 2012*

***Report prepared by:*** ..... *W. Scott Pegau*

***Project website (if applicable):*** ..... *<http://www.pwssc.org/herringsurvey/>*

**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.

The project has gone as planned so far. We arranged for two vessels to conduct fall juvenile herring survey. One vessel was dedicated to acoustic and bird predation surveys, the second for fish collection (energetics and disease) and oceanographic sampling. We sampled the four SEA bays (Simpson, Eaglik, Whale, and Zaikof) plus Lower Herring bay. The same bays were sampled in the spring. Sampling for juvenile herring remained standardized with the approach used in the spring of 2010. This includes using both variable mesh gill nets and cast nets. The cast nets have been most effective for collecting age-0 fish and gill nets are more effective with the larger fish.

Many age-1 herring were observed in the fall and very few age-0 fish were captured. We feel that our ability to find and catch age-0 fish has matured enough that the result is likely to indicate a very poor settlement of larval fish in 2011. The spring capture efforts also did not collect as many fish as we had in the past. All juvenile herring were turned over to the energetic or disease programs for analysis.

We contracted with Cordova District Fishermen United to use ten of their vessels to sample a larger number of bays in March 2012. The sampling design includes a gill net for a long deployment that could be compared between boats, and cast nets were provided to try and capture enough fish to be used in the energetics projects. We also specified the depth the gill net was to be used. All boats had one bay in common with either the research effort or another CDFU vessel. This was done to see if there was consistency in results. We found that specifying the depth of deployment of the gill nets greatly reduced the bycatch.

The investigators of the herring survey program met in Cordova in April to review results and plan for the synthesis effort. The meeting was open to the public and advertised widely on; however, there was limited public participation. We discussed data sharing between P.I.s and the public. We explored approaches to the synthesis and worked out preliminary deliverables to allow the synthesis to be completed on time. Subsequent to that meeting we finalized a deliverable schedule.

The PWSSC education group was responsible for delivery of most of the outreach products. They produced four project profiles, one-page descriptions of specific projects. These profiles were then modified for inclusion in the PWSSC annual Delta-Sounds Connection paper that describes ongoing science in the Prince William Sound region. This publication has a print number of 10,000 and is distributed widely throughout locations around Prince William Sound including ferry and airport terminals. Three Field Notes radio programs were produced and aired on the PWS public radio station KCHU. There were also three community presentations in Cordova that were available to be viewed in Valdez.

Materials from the herring program were also incorporated into the Discovery Room program, which involves 3<sup>rd</sup> through 6<sup>th</sup> graders in Cordova. The 5<sup>th</sup> grade oceanographic monitoring curriculum was modified to address how oceanographic conditions may affect herring growth and the students worked with herring scales collected by ADF&G to examine growth rates. Basic herring biology and monitoring have also been included in summer camps conducted by PWSSC. Results from the program were also included in the Alaska Geographic Prince William Sound expedition.

**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.*

We do not anticipate major changes to next year's work plan. The focus is on providing a synthesis that examines previous results and combines in the results from this program. We will be addressing the three objectives of the original proposal, with an emphasis on the first year of life because that is the portion of the life cycle this program emphasizes.

I do anticipate one change in my approach to developing the synthesis. I originally was planning to work with a scientist brought on to help the program. I am discontinuing that relationship and am working to find people that I might contract with to address specific issues. This will require more direct effort by myself than I originally planned, but do not see it affecting the objective, final result, or budget.

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

We are involved with the various projects to ensure boats are available and samples are collected. We brought together all of the PIs in April to update each other and plan the summer and next year's sampling. We maintain contact with all of the PIs to ensure sampling is coordinated. This includes the aerial and acoustic surveys, acoustic and capture surveys, energetic projects and disease sample collection, and oceanographic sampling programs. We are working with the PI's to provide data archiving through the Alaska Ocean Observing System.

This year overlapped with the new Herring Research and Monitoring program. We have taken care to ensure the HRM program builds upon the results from the PWS Herring Survey Program. We also have coordinated sampling and ensured there isn't duplication in efforts. By having the two programs work together we were able to obtain an important monthly sampling of juvenile herring in Simpson Bay. This is important because we will be able to track how fitness changes over time rather than just seeing the condition in fall and spring. The monthly sampling lasted until June so it will provide an indication of how the fish recover from the winter. This sampling should be of value to both herring programs.

**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.

Local fishermen were contracted to assist with collection of juvenile herring. This allowed a much larger area to be sampled. It also has increased the information flow between scientists and local fishermen. We are now getting more reports regarding herring outside of the sampling efforts.

**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.*

At the Alaska Marine Science Symposium we held a special section to discuss the existing results (led by Michele Buckhorn) and examine future research needs. We had the coordination meeting that was attended by the principal investigators. We also began working on synthesis of existing information, which will be the basis of future presentations and manuscripts.

**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.*

Expenditures are following what we budgeted to date. We may need to request shifting funds from Personnel to Contractual, but have not established the degree of shift that may be necessary. It is expected to be less than 10% of the total budget.

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](mailto: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.*