

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: 070816

Project Title: Evaluating Harlequin Duck Population Recovery: CYP1A Monitoring and a Demographic Population Model

PI Name: Dan Esler

Time period covered: FY07 (1 Sept 06 to 31 Aug 2007)

Date of Report: 24 Aug 2007

Report prepared by: Dan Esler

Project website (if applicable): n/a

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.

Studies have proceeded according to the schedule described in the DPD. Harlequin duck liver biopsies for quantification of CYP1A induction were successfully collected during field excursions. Samples were sent to the lab at UC Davis for determination of EROD activity. Samples were analyzed blindly, i.e., without knowledge of collection location, date, gender, or age of the birds. Raw data have been returned and data analyses and summaries are currently underway.

Similarly, the population model work is well underway. Available data sources for harlequin duck demographic attributes have been gathered. This includes unpublished data from my research group in British Columbia, published studies of harlequin duck demography in Prince William Sound and other areas, and reports on population numbers and dynamics in oiled and unoiled areas of Prince William Sound (Rosenberg EVOS report and Irons EVOS report). Further correspondence has been conducted with other investigators (e.g., John Piatt) for clarification of acute mortality estimates. The modeling expert, Sam Iverson, has determined the most appropriate model framework and has conducted trial runs using simplified data. We will continue to work with the model, increasing the complexity (and hence reality) to meet the objectives laid out in the original DPD.

In sum, this work has proceeded as expected and on schedule and we foresee delivery of final results in March 2008.

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.*

As described above, future work will involve completing data analyses and reporting on the CYP1A monitoring aspect of the project. In addition, the population model will continue to be refined over the coming months. Sam Iverson will travel to Vancouver in mid-October to discuss the final steps of the model and begin to prepare text for reports and publications. Most sources of uncertainty for this project (e.g., accomplishment of field work, access to data for modeling efforts, etc) have passed, and we foresee no constraints to delivery of final products on schedule.

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

Collaboration and coordination have proceeded as described in the DPD. We have been in touch with scientists with expertise in interpretation of CYP1A induction (e.g., Trust, Ballachey). Also, we have exercised a high degree of collaborative communication when gathering data for the population modeling aspect of the project.

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.

There has been limited opportunity to engage in these, at this stage of the project. However, we have made an effort to use local sources for contracts when possible (e.g., boat charters). Also, I (Esler) attended the Marine Science in Alaska Symposium in January 2007, which facilitated interaction with scientific colleagues and other interested parties. Also, we anticipate that project results will be presented in a number of oral and written formats, so that interested individuals and organizations will have access to the information. These will include implications for recovery and restoration of EVOS injuries, and broader implications to other systems and issues.

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.*

We have not produced any publications or presentations thus far, as the project is still in the data analysis stage. We anticipate considerable productivity in the coming months as the project enters the write-up phase. I expect to continue to attend the annual symposium, as a forum for discussing (and potentially presenting next year) the results of this work.

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.*

We have remained well within the budget described for this project. There may be slight redistributions among budget line items, but we expect this to be minor.

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 mandy.migura@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.*

Submit this report via e-mail to mandy.migura@alaska.gov . Thank you!