

EVOS ANNUAL PROJECT REPORT

All recipients of funds from the *Exxon Valdez* Oil Spill Trustee Council must submit an annual project report in the following format by September 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. Satisfactory review of the annual report is necessary for continuation of multi-year projects. Failure to submit an annual report by September 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: G-040639

Project Title: Monitoring Ecosystem Parameters in the Northern Gulf of Alaska

PI Name(s): Kenneth J. Goldman, Ph.D. (ADF&G-CF, Homer)

Time Period Covered by Report: October 1, 2005 - September 15, 2006

Date of Report: September 15, 2006

1. **Work Performed:** Summarize work performed during the reporting period, including any results available to date and their relationship to the original project objectives. Describe and explain any deviation 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.

In 2005, the small-mesh catch was dominated by the following species (% of total catch biomass): walleye pollock, *Theragra chalcogramma* (26.1%); flathead sole, *Hippoglossoides elassodon* (18.3%); starry flounder, *Platichthys stellatus* (14.5%); arrowtooth flounder, *Atheresthes stomias* (7.9%); sculpin, Family Cottidae and Psychrolatidae (4.3%); and Tanner crab, *Chionoecetes bairdi* (4.2%).

In our 2006 survey, a total of twenty-seven 1.0-nautical mile tows were made in Kachemak Bay, Lower Cook Inlet with a small-mesh trawl. The preliminary analysis of catch data from the 2006 small-mesh trawl was dominated by the following species(% of total catch biomass): flathead sole, *Hippoglossoides elassodon* (32.4%); walleye pollock, *Theragra chalcogramma* (12.6%); starry flounder, *Platichthys stellatus* (8.7%); Pacific halibut, *Hippoglossus stenolepis* (5.9%); arrowtooth flounder, *Atheresthes stomias* (5.0%); and northern shrimp, *Pandalus borealis* (4.7%).

Note: The original PI for this project, William R. Bechtol, retired in January 2005. Kenneth J. Goldman was hired into the Area Shellfish/Groundfish Research Biologist position in July 2005 and took over responsibility for this project from Ted Otis (Area Finfish Research Biologist), who acted as the interim PI until Bill's position was refilled.

There have been no deviations from the original project objectives, procedural or statistical methods, study area, or schedule.

2. **Future Work:** Summarize work to be performed during the upcoming year, if changed from the original proposal. Describe any proposed changes in objectives, procedural or statistical methods, study area, or schedule.

This three year project is nearing completion, ending on September 30, 2006 (at the end of the Federal fiscal Year), and there is no more field work to be conducted under this grant (all has been completed). We have applied for an FY07-09 EVOS grant to continue our EVOS long-term monitoring program funding.

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

Eight staff members from the ADF&G office in Homer, and two members of the Kachemak Bay National Estuarine Research Reserve took part in the 2006 survey. Scott Pegau (ADF&G-Kachemak Bay Research Reserve) recorded physical oceanographic data from a CTD during the 2006 survey to complement the biological data collected using the trawl. Oceanographic data collected over the course of this project, will be incorporated into our final research project analyses and report, which is due April 15, 2007. Once the final project report is completed and has gone through final ADF&G review, it will be included in an annual Central Region research report and distributed to other pertinent agencies and NGOs.

4. **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.

The spring timing and "day-trip" nature of this survey enabled approximately 30 Homer High School students to participate under the direction of Advanced Science Instructor Stan Eller in the previous two years of the project. With Mr. Eller's retirement, this did not occur in 2006, but we are establishing a working relationship with his replacement (Ms. Vicki Lowe) and will proceed to work with her on future projects that involve day trips (e.g. new EVOS grant submitted for FY07-09 if funded and our large mesh trawl survey in Kachemak Bay). However, over the course of this project, his students helped sort, identify, and sample specimens collected by the trawl. This survey provided an excellent platform for teaching community members about the marine ecology of Kachemak Bay. Project results, when finalized into a survey report, will be distributed to other pertinent agencies and NGOs.

5. **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.

Gustafson, R.L., and W.R. Bechtol. *In review*. Kachemak Bay small-mesh trawl survey, 2004. Alaska Department of Fish and Game, Division of Commercial Fisheries, Anchorage.

Richard Gustafson. 2006. Small Mesh Trawl Surveys in Kachemak Bay, Alaska. Poster Presentation at the 2006 Marine Science Symposium, January 22-25, 2006. Anchorage, Alaska.

6. **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.

While there is nothing that I would consider as “problems” with actual and budgeted expenditures to report, there is over \$30,000 in residual money that needs to be spent out before the end of the Federal Fiscal Year (September 30, 2006). The reason that these excess/residual funds are in the budget are: 1) my predecessor (Mr. Bechtol) did not originally receive all of the funds allocated to him in the first two years, and these funds were finally placed in the budget about three-four months ago, and 2) there are funds from the first two years that were not spent during that period of the project that I had rolled over into the final year. These “rollover fund” are not due to goals not being accomplished (all have been accomplished), but due to the forecasted nine days of vessel charges for the survey, when it only took ~6 days, as well as other expenditures that were probably less expensive than forecasted in the original budget that Mr. Bechtol submitted to EVOS for this project). As such, I have requested that I be allowed to use these remaining EVOS funds to purchase some net mensuration equipment for our trawl gear used in our EVOS project. The net mensuration gear is acoustic equipment that we would attach to our trawl net that provides real-time information/data on the width of the net opening, the height of the net opening, as well as bottom contact sensors that tell us if the net is indeed/actually on the bottom. This equipment would be an invaluable addition to our program and would greatly benefit us in our next go-round of EVOS funding (which we are obviously hoping to receive this November). It would also assist us with other trawl surveys we conduct in the same area that we trawl for our EVOS project (Kachemak Bay) and be of enormous assistance in our overall Ecosystem Monitoring Program.

Report Prepared By: Kenneth J. Goldman, Ph.D., Alaska Department of Fish and Game, Division of Commercial Fisheries, Central Region Groundfish and Shellfish Biologist, 3298 Douglas Place, Homer, AK 99603. Email: ken_goldman@fishgame.state.ak.us