FY16 PROJECT PROPOSAL SUMMARY PAGE Continuing, Multi-Year Projects

Project Title: Herring Research and Monitoring – Coordination and Logistics

Project Period: February 1, 2016 – January 31, 2017

Primary Investigator(s): W. Scott Pegau, Prince William Sound Science Center

Study Location: Prince William Sound

Project Website (if applicable): http://pwssc.org/research/fish/pacific-herring/

Abstract*:

This project is for the coordination and logistics aspects of the proposed program titled, "Herring Research and Monitoring". The long-term goal of the program is to improve predictive models of herring stocks through observations and research. The objectives of the program are 1) *Provide information to improve input to the age-structure-analysis* (ASA) model, or test assumptions within the ASA model, 2) Inform the required synthesis effort, 3) Address assumptions in the current measurements, and 4) Develop new approaches to monitoring. The Coordination and Logistics project objectives are to 1) ensure coordination between projects to achieve the program objectives, 2) Provide a synthesis from existing results, and 3) provide logistical support to the various projects.

Coordination includes scheduling of projects to ensure the maximum sharing of vessel time and ensuring that projects dependent on results or samples from another project are in the correct order. Coordination will be primarily through email and teleconference, but each year all the investigators are required to meet in person. Coordination is also taking place with the existing Herring Survey program, the Long-Term monitoring program, and ADF&G herring sampling.

Logistics is primarily in providing vessel time.

A synthesis was provided to EVOSTC in early 2015.

Estimated Budget:

EVOSTC Funding Requested* (*must include 9% GA*):

FY12	FY13	FY14	FY15	FY16	TOTAL
\$364.1K	\$510.3K	\$388.1K	\$339.0K	\$338.6K	\$1,940.1K

Non-EVOSTC Funds to be used:

FY12	FY13	FY14	FY15	FY16	TOTAL
\$20.0K	\$21.0K	\$22.0K	\$24.0K	\$24.7K	\$111.7K

^{*}If the amount requested here does not match the amount on the budget form, the request on the budget form will considered to be correct.

Date: August 14, 2015

I. EXECUTIVE SUMMARY

This project is for the coordination and logistics aspects of the proposed program titled, "Herring Research and Monitoring" (HRM). The long-term goal of the program is to improve predictive models of herring stocks through observations and research. The objectives of the program are 1) *Provide information to improve input to the age-structure-analysis (ASA) model, or test assumptions within the ASA model, 2) Inform the required synthesis effort, 3) Address assumptions in the current measurements, and 4) Develop new approaches to monitoring.* In support of the program the Coordination and Logistics project objectives are to 1) ensure coordination between projects to achieve the program objectives, 2) Provide a synthesis from existing results, and 3) provide logistical support to the various projects.

Coordination includes scheduling of projects to ensure the maximum sharing of vessel time and ensuring that projects dependent on results or samples from another project are in the correct order. Coordination is primarily through email and teleconference, but each year all the investigators are required to meet in person. Coordination is also taking place with the Long-Term monitoring program (Gulf Watch Alaska, GWA), and Alaska Department of Fish and Game (ADF&G) herring sampling. This coordination is accomplished through attendance in the Gulf Watch Alaska principal investigator (PI) meetings and teleconferences. The aerial surveys are also coordinated between the two programs to maximize benefit to both programs. This was the second year of the coordinated aerial survey project and we were able to achieve our objectives and continue to look for new approaches that may help refine our future protocols.

Logistics is primarily in providing vessel and aircraft time. It also includes setting up PI meetings for all projects to share information.

The synthesis was developed and delivered to EVOS Trustee Council staff.

While there were no Science Panel comments were specifically directed at this project, there were several comments in other sections that brought up the connectivity of the projects. We are hoping that some of those concerns were addressed in the synthesis.

II. COORDINATION AND COLLABORATION A. Within a EVOTC-Funded Program

Coordination within the HRM program includes scheduling of projects to ensure the maximum sharing of vessel time so that projects dependent on results or samples from another project are in the correct order. Coordination is primarily through email and teleconference, but each year all the investigators are required to meet in person. Coordination has led to new questions to be addressed, such as the disease sampling in the harbor to examine for potential sources of Ichthyophonus.

Coordination between the HRM and GWA programs is accomplished through attendance in the Gulf Watch Alaska principal investigator (PI) meetings and teleconferences. The aerial surveys are also coordinated between the two programs to maximize benefit to both programs. The forage fish project provided equipment and protocols and the herring program provided observers. We worked with the continuous plankton recorder and PWS oceanography projects to examine how first year herring growth is dependent on the environmental variables.

B. With Other EVOSTC-funded Projects

We do not have collaborative work with EVOSTC-funded projects outside of the HRM and GWA programs.

C. With Trustee or Management Agencies

The HRM program is conducted in close collaboration with ADF&G. The long-term goal and objectives of the program are designed to benefit ADF&G by improving information and testing assumptions of the age-structure-analysis model. Steve Moffitt in Cordova (local area biologist) and Sherri Dressel in Juneau (statewide herring coordinator and member of the HRM oversight group) are our primary two contacts in ADF&G. HRM provides some aerial survey time to document herring spawn in areas or at times that ADF&G are unable to fly. We coordinated with them the location of remote cameras for testing their ability to provide an indication of when spawn may occur in remote locations. We have also supported the collection of herring at Kayak Island and at Montague Island to provide some indication of the age structure at those locations. We share reports of herring observations. This year that allowed ADF&G to sample spawn events on Montague Island. ADF&G provides an opportunity for the HRM disease project to sample the adult spawning population. The prevalence of the three major diseases are then reported back to ADF&G. We also coordinate with ADF&G in providing acoustic estimates of the adult herring spawning biomass.

The National Oceanographic and Atmospheric Administration (Ron Heintz) and the United States Geological Service (Paul Hershberger) also are participants in the HRM program. As participants in the program they are involved in the coordination efforts.

III. PROJECT DESIGN – PLAN FOR FY16

A. Objectives for FY16

This projects objectives are:

- 1) Ensure coordination between projects to achieve the program objectives.
- 2) Provide logistical support to the various projects.

B. Changes to Project Design

We are not anticipating any large changes to the design of the Coordination and Logistics project. Because the program was originally designed to end in October and now runs through January we will be supporting an additional fall sampling event. The Coordination and Logistics project is now also providing personnel to be the observer and data recorder on the aerial survey flights in June and July.

IV. SCHEDULE

A. Project Milestones for FY 16

Objective 1. Ensure coordination between projects to achieve the program objectives. *Continuing objective.*

We anticipate meeting in November 2015 and January 2016.

Objective 2. Provide logistical support to the various projects. *Continuing objective*

B. Measurable Project Tasks for FY 16

FY 16, 1st quarter (February 1, 2016 - April 31, 2016)

February: Submit annual report

March: Support spring collection of juvenile herring

Support expanded adult survey cruises

April: Support Aerial surveys of herring spawn

FY 16, 2nd quarter (May 1, 2016-July 30, 2016)

June: Support Aerial surveys of juvenile herring July: Support Aerial surveys of forage fish

FY 16, 3rd quarter (August 1, 2016 – October 31, 2016)

FY 16, 4th quarter (November 1, 2016- January 31, 2017)

November: Support fall juvenile herring survey

January: Attend Alaska Marine Science Symposium

V. PROJECT PERSONNEL - CHANGES AND UPDATES

No personnel changes are anticipated

VI. BUDGET

A. Budget Forms (Attached)

Budget Category:	Proposed	Proposed	Proposed	Proposed	Proposed	TOTAL	ACTUAL
	FY 12	FY 13	FY 14	FY 15	FY 16	PROPOSED	CUMULATIVE
Personnel	\$19,100.0	\$27,900.0	\$28,700.0	\$20,900.0	\$21,700.0	\$118,300.0	
Travel	\$9,500.0	\$4,100.0	\$5,000.0	\$4,000.0	\$8,700.0	\$31,300.0	
Contractual	\$216,960.0	\$375,999.0	\$282,288.0	\$244,916.0	\$243,657.0	\$1,363,820.0	
Commodities	\$2,300.0	\$4,000.0	\$2,300.0	\$4,400.0	\$1,000.0	\$14,000.0	
Equipment	\$50,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$50,500.0	
Indirect Costs (will vary by proposer)	\$35,700	\$56,130	\$37,800	\$36,800	\$35,570	\$202,000.0	
SUBTOTAL	\$334,060.0	\$468,129.0	\$356,088.0	\$311,016.0	\$310,627.0	\$1,779,920.0	
General Administration (9% of	\$30,065.4	\$42,131.6	\$32,047.9	\$27,991.4	\$27,956.4	\$160,192.8	
PROJECT TOTAL	\$364,125.4	\$510,260.6	\$388,135.9	\$339,007.4	\$338,583.4	\$1,940,112.8	
Other Resources (Cost Share Funds)	\$0.0	\$0.0	\$0.0	\$24,000.0	\$24,700.0	\$0.0	

B. Changes from Original Proposal

None

C. Sources of Additional Funding

OSRI provides up to two months (\$24,700) of additional support for salary to Dr. Pegau to complete the coordination efforts.