

FY15 PROJECT PROPOSAL SUMMARY PAGE

Continuing, Multi-Year Projects

Proposals are due to the EVOSTC office by September 2, 2014. Please note that the information in your proposal and budget form will be used for funding review. Late proposals, revisions or corrections may not be accepted.

Project Title: PWS Herring Research and Monitoring: Outreach & Education

Project Period: February 1, 2015 – January 31, 2016

Primary Investigator(s): Hayley Hoover, Education Specialist, PWS Science Center (PWSSC)

Study Location: Prince William Sound (PWS)

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

Abstract*: The *Outreach & Education* project is designed to enhance the PWS Herring Program research activities by showcasing their relevancy, broadening their applicability and extending their impact to people in the community. PWSSC educators will work with PWS Herring Research and Monitoring principal investigators (PI) and project collaborators to prepare public education materials that communicate the purpose, goals and results of the research program to “non-scientist” audiences and stakeholders in communities in and beyond the spill affected area.

Outreach and education products will extend and transfer Pacific herring and marine ecosystem information to inform the public of local research activities and improve their ecological and ocean science literacy.

The specific objectives of this proposal, which includes the outreach and education components of the PWS Herring Research and Monitoring Program, are to:

- 1) Disseminate PWS herring research information and lessons learned in this program to individuals, groups, policy makers, resource managers and institutions in PWS, including the effected fishing community.
- 2) Extend and transfer PWS herring research-based outreach and education products to general audiences in and beyond the spill affected areas of PWS.
- 3) Integrate community involvement into the planning and sampling programs through citizen science opportunities and public workshops

Estimated Budget:

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

FY12	FY13	FY14	FY15	FY16	TOTAL
16,459	30,520	32,700	35,970	38,259	153,908

Non-EVOSTC Funds to be used:

FY12	FY13	FY14	FY15	FY16	TOTAL
50,000	50,000	65,000	65,000		

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

Date: 8/15/2014

I. EXECUTIVE SUMMARY

The **Outreach & Education** project is designed to enhance the PWS herring research activities by showcasing their relevancy, broadening their applicability and extending their impact to people in communities in and beyond the spill affected areas of PWS. Outreach products and education activities will extend and transfer herring and ecosystem information to inform the public of local research activities and improve their ecological and ocean science literacy. Both formal and informal approaches to science education are used.

The PWSSC education group has experience developing and implementing a diverse array of public outreach and educational activities through its *Headwaters to Ocean* program. Educators will work closely with PWS herring research principal investigators and project collaborators to prepare and distribute public education materials that communicate the purpose, goals and results of the research program to “non-scientist” audiences and stakeholders in communities in and beyond the spill affected area.

Table 1. The informal or formal education approaches (**bold**) used to meet objectives, specific products (*italics*), and schedule and frequency/number of outreach and education products developed/delivered by our staff.

1. Written project profiles and articles for public information and use; appropriate for lay audiences for inclusion in newsletters or other science/education publications.		
<i>Delta Sound Connections</i>	15,000 copies distributed annually to residents and visitors to PWS	Contribution of articles by herring researchers FY12-16. Sponsorship and herring program feature FY13 & FY15
<i>PWSSC Breakwater newsletter</i>	emailed to 325 households/businesses in and outside of Alaska	2-3 articles per year FY12-16
<i>Project Profiles</i>	Distribution points: PWSSC, and website	Three profiles per year developed or updated FY12-16
2. Public presentations to general public audiences.		
<i>Community Lecture Series</i>	(live in Cordova, broadcast to Valdez)	Three presentations delivered by Herring researchers per year FY12-16
<i>Field Notes radio program</i>	(aired and archived KCHU public radio)	Three radio programs produced based on Herring projects per year FY12-16
3. Advertise and involve community members in opportunities to participate in herring research as “citizen scientists.”		
<i>Citizen Science Opportunities</i>	Provide and promote opportunities for the public to become involved in research project activities	Citizen science opportunities promoted on web and during community presentations
4. Develop and advertise web-based materials to communicate the basis, goals and results of the herring research project, and provide access to outreach and education products.		
<i>Herring Program webpage:</i> http://www.pwssc.org/herringsurvey	Basic information about each herring project can be found and links to the annual reports on the EVOSTC	Continue to use this as a place to make documents associated with the herring program accessible FY12-16

	website.	
<i>PWSSC YouTube channel:</i> http://www.youtube.com/user/PWSSC	Podcasts (based on <i>Field Notes</i> radio programs) and video clips posted on YouTube	Continue to use popular social media to outreach information associated with the herring program FY12-16
5. Educate targeted groups in the application of research information and sampling methods.		
<i>Discovery Room</i>	5 th Grade Oceanography and Herring curriculum	6 2-hour classroom sessions/monitoring field trips delivered Oct-Apr FY12-16
<i>Outreach Discovery</i>	Stand-alone, hands-on herring and ocean science education programs for students in grades 3-12	1 program delivered to school group outside of Cordova per year FY12-16
<i>Summer Field Programs</i>	Field-based, hands-on herring and ocean science activities for participants in science and environmental camps and day programs	1 program delivered in PWSSC or partner summer program per year FY12-16

II. COORDINATION AND COLLABORATION

A. Within a EVOTC-Funded Program

This project provides outreach and education for all projects within the Herring Research and Monitoring Program. We participate on research cruises when opportunity allows. Other project investigators provide the basic materials needed through a description of their research, interviews, and other presentations. We also connect with the Gulf Watch Alaska program in areas of overlap of the two programs.

B. With Other EVOSTC-funded Projects

We participate in the Cordova Clean Harbor oversight group that is connected to the Cordova Clean Harbor project being led by the Native Village of Eyak with funding from EVOS.

C. With Trustee or Management Agencies

We work with the investigators in the HRM program from ADF&G, NOAA, and USGS to develop project profiles, *Field Notes* programs, and community lecture opportunities to provide outreach of their research.

III. PROJECT DESIGN – PLAN FOR FY15

A. Objectives for FY15

The specific objectives of this proposal, which includes the outreach and education components of the PWS Herring Research and Monitoring Program, are to:

- 1) Disseminate PWS herring research information and lessons learned in this program to individuals, groups, policy makers, resource managers and institutions in PWS, including the effected fishing community.
- 2) Extend and transfer PWS herring research-based outreach and education products to general audiences in and beyond the spill affected areas of PWS.
- 3) Integrate community involvement into the planning and sampling programs through citizen science opportunities and public workshops

B. Changes to Project Design

Turnover in the education department has made consistency in meeting objectives challenging. Hayley Hoover was hired in FY 14 to replace Lindsay Butters. It is Hayley's goal to get the education program caught up and on track with its deliverable objectives in FY 15. Specifically Field Notes has undergone formatting changes as well as leadership changes. Instead of a narrative framework, program will be interview based. One challenge with this approach is Herring PIs are not all in a central location. Logistically, getting PIs to commit to contributing to this program can be difficult.

The structure of the PWSSC summer programs is currently being revised. There were no summer programs delivered in FY 14 and we do not anticipate being able to deliver summer programs in FY 15. The funding will be used to ensure that the herring materials can be incorporated into the revised summer programs.

We no longer anticipate maintaining the herring program facebook page. We will provide updates through the PWSSC blog. Blog posts are used in the *Breakwater* and can be forwarded to the PWSSC facebook page.

IV. SCHEDULE

A. Project Milestones for FY 15

Objective 1. Disseminate PWS herring research information and lessons learned in this program to individuals, groups, policy makers, resource managers and institutions in PWS, including the effected fishing community.

A continuing objective

Objective 2. Extend and transfer PWS herring research-based outreach and education products to general audiences in and beyond the spill affected areas of PWS.

A continuing objective

Objective 3. Integrate community involvement into the planning and sampling programs through citizen science opportunities and public workshops.

A continuing objective

B. Measurable Project Tasks for FY 15

FY 15, 1st quarter (February 1, 2015 - April 31, 2015)

February: *Continue implementing oceanography and herring Discovery Room
Submit annual report*

FY 15, 2nd quarter (May 1, 2015-July 30, 2015)

April: *Develop/update Project Profiles based on surveys & herring data*
May: *Evaluate oceanography and herring Discovery Room program
Participate in Principal Investigator update and outreach meeting
Delivery of Community Lectures and Field Notes complete for FY15
Written outreach materials complete for FY15 (Delta Sound Connections,
Breakwater newsletter articles, Project Profiles)*

FY 15, 3rd quarter (August 1, 2015 – October 31, 2015)

August: *Submit Report*

September: *Continue implementing oceanography and herring Discovery Room*

FY 15, 4th quarter (November 1, 2015- January 31, 2016)

December: *Develop Field Notes radio program based on fall surveys*

V. PROJECT PERSONNEL – CHANGES AND UPDATES

Hayley Hoover has been hired to lead the herring program outreach and education activities. Her CV is provided at the end of this report.

VI. BUDGET

A. Budget Forms (Attached)

Provide completed budget forms.

B. Changes from Original Proposal

No budget changes are requested.

C. Sources of Additional Funding

The delivery of Discovery Room activities, the development of the *Breakwater* and *Delta-Sound Connections* documents, Outreach Discovery, and the community lecture series are also supported by a number of different contributions including \$55,000 from the Oil Spill Recovery Institute and \$10,000 from Conoco-Phillips.

Hayley Jo Hoover

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Experience

F/V Tina Deckhand

Summer 2013

As a seine deck hand I stacked the lead line and cooked all the meals. As a team we mended gear, maintained mechanics, and kept the boat orderly.

Reluctant Fisherman

2013

Waited tables.

Orca Adventure Lodge

Summers 2012 -2013

Waited tables occasionally helped with cooking, and washed dishes.

Forestry Crew Technician

2010 - 2012

Crew duties included conducting silvicultural practices, providing forest products to the College, trail and logging road maintenance, and shiitake mushroom propagation.

Personal experience included: felling, bucking, and limbing trees up to twenty inches in diameter, operating a band saw mill, stacking lumber, assisting in tree marking (for timber cuts), cutting, splitting, and stacking firewood, running hydraulic splitter, assisting with simple carpentry projects, inoculating shitake mushroom logs, harvesting shitake mushrooms, creating wildlife brush piles, maintaining and repairing equipment (mostly chainsaws), performing prescribed burns, using herbicides to treat of invasive species, and enrichment planting of rare and medicinal plants.

F/V Mariah Deckhand

Summer 2012

As a gillnet deckhand I was responsible for pitching fish, picking fish out of net, keeping a clean and orderly deck and cabin, and shared cooking responsibilities.

Landscaping Crew Technician

2008 - 2010

Crew tasks ranged from operating heavy machinery to weeding garden beds on main campus. As a crew we planned the landscape design for the campus. This entailed quite a bit of research, planning, coming to the drawing board, and then finally carrying out our plan in the field.

F/V Obsidian Deckhand

Summers 2004 - 2010

On this boat I had the same responsibilities as on the Mariah. As a gillnet deckhand I was responsible for pitching fish, picking fish out of net, keeping a clean and orderly deck and cabin, and shared cooking responsibilities.

College Education

Warren Wilson College

2008-2012

I graduated Warren Wilson College (WWC) with a Bachelor of Arts in Environmental Science with a concentration in Sustainable Forestry.

Forest Management Course**Spring 2012**

The objective of this class was to give students the ability to apply the sivicultural techniques learned in previous classes to the real world. During this course two other students and I had the opportunity to survey and apply our knowledge on a community member's property. The majority of my last semester of college was spent collecting data and writing management techniques for 150 acres of Walter Harill's family property in Fairview NC. As a team we wrote a management plan that outlined suggestions for timber management, agriculture management, potential agroforestry techniques, and NTFP management.

Natural Science Seminar (NSS)**Spring 2012**

During the last two years of college I prepared for and executed my undergraduate thesis. I did a study on the effects of sedimentation on spawning habitat in our very own Lake Eyak. Through the course of my studies I worked with teachers at WWC as well as members of the Copper River Watershed Project, EcoTrust, and The Prince William Sound Science Center. This opportunity helped me develop my scientific writing voice, research style, data collection skills, public speaking skills as well as networking skills.

Yarbrough Research Grant**Spring 2011**

Part of my NSS experience was budgeting and applying for grants. In order to perform my data collection and get my samples back to the lab at WWC I applied for the Yarbrough Research Grant and was awarded my requested sum.

GIS**Fall 2011**

I have taken a GIS course in college but am not certified. I used this program for many of my classes including Forest Management, Agroforestry, Aquatic ecology, hydrology and my independent study geology courses.

Certifications**Forest Service**

I am a certified B Sawyer by the USFS. I am also certified by the NCFS in wild-land fire fighting.

PADI/SCUBA

I was trained in Thailand to be a certified Open Water diver.

CPR/First Aid

I have been trained twice before, but unfortunately by certification has recently expired.

Conferences**River Network Rally****2013**

The Native Village of Eyak gave me the chance to attend the River Network's annual Rally. I was fortunate enough to go to workshops on topics ranging from Effects of Fraking on water supply to The Art of Environmental Education.

North Carolina Academy of Science Annual Meeting**2012**

After being awarded grant moneys for my undergraduate thesis I was asked to present my study at Campbell University. Here I was company to other grant winners and many graduate students also presenting their studies