

Update Report

Period 2/1/2013 - 1/31/2014

Project R/LME/N-4 - Planning for Sustainable Shellfish Aquaculture Identifying Current Activities, Public Perceptions, Conflicts, and Compatibilities

STUDENTS SUPPORTED

Faulkner, Hannah, fauhan24@evergreen.edu, The Evergreen State College, Environmental Studies, status cont, field of study Environmental Science, advisor Dina Roberts, degree type MS, degree date 2013-06-01, degree completed this period Yes
Student Project Title Exploring the relationships between sea ducks and aquaculture in Puget Sound does aquaculture influence local sea duck population distribution and density?

Involvement with Sea Grant This Period Intern

Post-Graduation Plans Washington Dept of Fish & Wildlife employee (temp. employee during this reporting period) and PSI hourly employee.

CONFERENCES / PRESENTATIONS

No Conferences / Presentations Reported This Period

ADDITIONAL METRICS

K-12 Students Reached	Acres of degraded ecosystems restored as a result of Sea Grant activities
Curricula Developed	Resource Managers who use Ecosystem-Based Approaches to Management
Volunteer Hours	HACCP - Number of people with new certifications
Cumulative Clean Marina Program - certifications	

PATENTS AND ECONOMIC BENEFITS

No Benefits Reported This Period

TOOLS, TECH, AND INFORMATION SERVICES

No Tools, Tech, or Information Services Reported This Period

HAZARD RESILIENCE IN COASTAL COMMUNITIES

No Communities Reported This Period

ADDITIONAL MEASURES

Safe and sustainable seafood

Number of stakeholders modifying practices

Actual (2/1/2013 - 1/31/2014)

Anticipated (2/1/2014 - 1/31/2015)

Number of fishers using new techniques

Actual (2/1/2013 - 1/31/2014)

Anticipated (2/1/2014 - 1/31/2015)

Sustainable Coastal Development

Actual (2/1/2013 - 1/31/2014)

Anticipated (2/1/2014 - 1/31/2015)

Coastal Ecosystems

Actual (2/1/2013 - 1/31/2014)

Anticipated (2/1/2014 - 1/31/2015)

PARTNERS

Partner Name California Sea Grant

Partner Name Northwest Indian Fisheries Commission

Partner Name Oregon Sea Grant

Partner Name Washington Department of Ecology

Partner Name Washington State University Social & Economic Sciences Research Center

IMPACTS AND ACCOMPLISHMENTS

Title Washington Sea Grant research uses geospatial and societal data to help fit shellfish aquaculture into coastal planning

Type accomplishment

Description Relevance Shellfish aquaculture can contribute significantly to satisfying the growing demand worldwide for seafood. Bivalves also play a vital role in cleaning local waters, restoring estuaries, and providing habitat structure. The 2011 Washington Shellfish Initiative demonstrated national and state commitment to expanding shellfish aquaculture. But ecologically and socially sustainable expansion requires planning based on human use data, social research, and outreach and education. Response With funding from a national strategic initiative, Washington Sea Grant-supported researchers are combining geospatial data on commercial aquaculture with research into its social dimensions to support coastal and marine spatial planning (CMSP) along the West Coast. The research team assembled more than a dozen GIS map layers of shellfish activities (commercial farms, classified shellfish growing areas, established tribal harvest areas), relevant infrastructure (docks, ramps, refrigeration, storage, processing, and export-ready cargo facilities), and federal, state, and local regulations in Washington, Oregon, and California. In conjunction with a second national aquaculture grant, the team is exploring two overarching questions “Are these communities opposed to or supportive of continued or expanded shellfish aquaculture?” and “What are the implications for aquaculture planning and development?” Project staff and partners sent a survey probing community views of expanded shellfish aquaculture to more than 4,000 residents. Results The survey elicited an unusually high 34 percent response rate and answers responding to a wide

range of issues. It revealed the general view that shellfish farms “neither enhance nor detract from the scenery of coastal areas” and their “greatest benefit” is “providing locally produced seafood.”

Recap Washington Sea Grant-supported research combines geospatial data and an examination of the social dimensions of shellfish aquaculture to ensure that it is fully integrated into coastal and marine spatial planning along the U.S. West Coast.

Comments Primary Focus Area LME (SSSS) Secondary Focus Areas COCC (SCD) State Goals Support conservation and sustainable use of living marine resources through effective and responsible approaches, tools, models and information for harvesting wild and cultured stocks and preserving protected species (SSSS Industry). Assist coastal communities and marine-dependent businesses in planning and making decisions that provide local and regional economic benefits, increase resilience and foster stewardship of social, economic and natural resources (SCD Inter-relationships).

Related Partners

PUBLICATIONS

No Publications Reported This Period

OTHER DOCUMENTS

No Documents Reported This Period

LEVERAGED FUNDS

No Leveraged Funds Reported This Period

UPDATE NARRATIVE

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WASHINGTON SEA GRANT ANNUAL PROGRESS REPORT

for the period 3/1/2012 – 1/31/2014

Project Title: NOAA Sea Grant Aquaculture Research Program: Planning for Sustainable Shellfish Aquaculture: Identifying Current Activities, Public Perceptions, Conflicts, and Compatibilities

Principal Investigator(s) and Affiliation:
Bobbi Hudson, Pacific Shellfish Institute

1. ACCOMPLISHMENTS AND OUTCOMES

Task 1: Assemble and add value to existing GIS map layers of shellfish activities in nearshore areas, relevant infrastructure, and federal, state, and local regulations (georegulations) in WA, OR, and CA.

Significant progress was made toward completion of this task during this reporting period. The Master's student hired for the project continued to assist with GIS and spatial analysis activities. She coordinated with relevant agencies in Oregon and California and gathered over a dozen data layers covering shellfish production, recreation and regulatory dimensions. PSI staff added Oregon shellfish data and finished metadata additions for that state.

Task 2: Design and implement surveys to identify local public perceptions of shellfish aquaculture and possible expansion of these efforts in nearshore and adjacent offshore waters.

Similarly, significant progress was made toward completion of this task. The project team developed, refined and finalized a citizen survey. WSU Social and Economic Sciences Research Center produced and then deployed the mixed-mode online and postal mail survey to 4,000 households across ten counties (total) in Washington, Oregon and California. A 34% response rate was achieved across the entire study area, and each of the ten counties obtained enough responses to guarantee a sample precision of +/-10% within each community and +/-4% overall. WSU Social and Economic Sciences Research Center began analysis of survey results for internal (project team) and external (Task 3) dissemination. The team also completed the list of relevant stakeholders for the targeted survey.

Task 3: Provide targeted outreach for coastal decision-makers located in areas with existing or potential for shellfish aquaculture.

Workshops were not scheduled to occur during this reporting period.

2. IMPACTS

No impacts to report during this period.

3. PUBLICATIONS

Please refer to instructions for hardcopy reprint requirements and citation formats.

Peer-reviewed journal articles

Peer-reviewed book chapters

Conference/Workshop activity (talk or poster), Presentation/Seminar (e.g., invited)

Theses and dissertations

Technical reports

Media placements of your WSG-funded work

Other (please use citation guidelines to identify the category of publication and proper citation format)

4. STUDENTS SUPPORTED BY OR AFFILIATED WITH THIS PROJECT

Please indicate with a check mark here if no students were involved in the project.

Student Name: **Hannah Faulkner, The Evergreen State College**

Degree track (Ph.D., **M.S.**, M.A., B.S., B.A., J.D., etc):

Whether degree was completed during the reporting window (**YES** or NO):

New or continuing student on WSG support (NEW or **CONTINUING**):

Department: **Environmental Studies**

Major/Degree field: **Environmental Science**

Major Professor: **Dina Roberts**

Dissertation/Thesis title (actual or anticipated): **Exploring the relationships between sea ducks and aquaculture in Puget Sound: does aquaculture influence local sea duck population distribution and density?**

Date of graduation (actual or anticipated): **6/2013**

5. PARTNERSHIPS

Washington State University, Social and Economic Sciences Research Center

Oregon Sea Grant

California Sea Grant

Washington Department of Ecology

Northwest Indian Fisheries Commission

6. OUTREACH AND INFORMATION/TECHNOLOGY TRANSFER

(for any activities not captured in the metrics below)

N/A