Update Report

Cheney, Dan

Period: 2/1/2012 - 1/31/2013
Project: R/LME/N-2 - *West Coast Shellfish Aquaculture – Economic Impacts, Barriers to Entry, and Opportunities for Expanded Production*

:: STUDENTS SUPPORTED

No Students Reported This Period

:: CONFERENCES / PRESENTATIONS

'Economic Impact of West Coast Shellfish Aquaculture' - Pacific Coast Shellfish Growers Association Annual Meeting, public/profession presentation, 150 attendees, 2012-09-26

'Economic Impact of West Coast Shellfish Aquaculture', National Shellfisheries Association 104th annual meeting 3/24-29/2012 in Seattle, Washington, public/profession presentation, 25 attendees, 2012-03-29

:: ADDITIONAL METRICS

K-12 Students Reached: 0

Acres of degraded ecosystems restored as a result of Sea Grant activities: 0

Curricula Developed: 0

Resource Managers who use Ecosystem-Based Approaches to Management: 0

Volunteer Hours: 241

HACCP - Number of people with new certifications: 0

Industry representatives time in developing, completing, and soliciting detailed expenditures surveys

Cumulative Clean Marina Program - certifications: 0

:: PATENTS AND ECONOMIC BENEFITS

No Benefits Reported This Period

:: TOOLS, TECH, AND INFORMATION SERVICES

Description	Developed	Used	Names of Managers	Number of Managers

Use of revenue, expenditure data for WA, CA, OR shellfish operations to demonstrate industry economic impact. R/LME/N-2	**Actual** (2/1/2012 - 1/31/2013) :	0	0
	Anticipated (2/1/2013 - 1/31/2014) :	1	
Use of information, case studies of barriers to entry for shellfish industries in WA, OR, CA to inform policy, regulatory decisions. R/LME/N-2	**Actual** (2/1/2012 - 1/31/2013) :	0	0
	Anticipated (2/1/2013 - 1/31/2014) :	1	

:: HAZARD RESILIENCE IN COASTAL COMMUNITIES

No Communities Reported This Period

:: ADDITIONAL MEASURES

Safe and sustainable seafood

Number of stakeholders modifying practices
Actual (2/1/2012 - 1/31/2013) :
Anticipated (2/1/2013 - 1/31/2014) :

Number of fishers using new techniques
Actual (2/1/2012 - 1/31/2013) :
Anticipated (2/1/2013 - 1/31/2014) :

Sustainable Coastal Development
Actual (2/1/2012 - 1/31/2013) :
Anticipated (2/1/2013 - 1/31/2014) :

Coastal Ecosystems
Actual (2/1/2012 - 1/31/2013) :
Anticipated (2/1/2013 - 1/31/2014) :

:: PARTNERS

No Partners Reported This Period

:: IMPACTS AND ACCOMPLISHMENTS

Title: **A Washington Sea Grant-funded project captures important economic data on West Coast shellfish aquaculture operations**

Type: accomplishment

Description:
Relevance: Ecologically sustainable shellfish aquaculture could contribute significantly to meeting the growing demand for seafood in the United States and abroad. West Coast oysters, clams, geoducks and mussels had an estimated 2011 farmgate value of $128 million, with oysters accounting for about 75 percent. However, the profitability and expansion of shellfish aquaculture face a range of challenges, including permitting delays, use conflicts, litigation and environmental concerns.
Response: A Sea Grant National Strategic Investment is supporting an examination of economic issues, barriers

to entry, and opportunities for expanded production of West Coast shellfish aquaculture. In 2012, the project team surveyed more than 300 businesses engaged in shellfish aquaculture on the West Coast.
Results: Growers representing all the production in California, about 75 percent of production in Washington, and about 32 percent of production in Oregon responded to the survey. It collected key operational data that will help growers streamline their operations and identify the industry's economic impacts, barriers to entry, and opportunities for expansion. In Washington, the industry spends more than $101 million a year. It generates $184 million in economic activity and more than 2,700 jobs (not counting wild-shellfish harvesters and tribal growers), paying total wages of $77 million. One formerly depressed county, Pacific, is particularly dependent on the industry, with nearly 1,600 shellfish-related jobs in a population of 21,000.

Recap:
Washington Sea Grant-funded research gauges the regional and local economic impacts of shellfish aquaculture, providing a baseline for identifying challenges and opportunities for expansion.

Comments:
Primary Focus Area – LME (SSSS)
Secondary Focus Areas – COCC (SCD)

Associated 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:

Little Skookum Shellfish Growers
Northern Economics Inc.
Oregon Sea Grant
Pacific Coast Shellfish Growers Association
Pacific Shellfish Institute

:: PUBLICATIONS

No Publications Reported This Period

:: OTHER DOCUMENTS

No Documents Reported This Period

:: LEVERAGED FUNDS

No Leveraged Funds Reported This Period

WASHINGTON SEA GRANT PROGRESS REPORT
for the period 2/1/2012 – 1/31/2013

Project Title: NOAA Sea Grant Aquaculture Research Program: West Coast Shellfish Aquaculture – Economic Impacts, Barriers to Entry, and Opportunities for Expanded Production

Principal Investigator(s) and Affiliation:
Dan Cheney Pacific Shellfish Institute

1. ACCOMPLISHMENTS AND OUTCOMES

During this reporting period, the project completed both detail and simple surveys of shellfish farmers' production, revenues and expenditures in Washington, Oregon and California. This included multiple "key respondent" surveys which targeted a handful of selected shellfish growing operations for detailed company expenditures. In WA, 43 growers responded. While there are more than 300 shellfish farmers in the state, these 43 respondents represent roughly 75% of total production in the state by acreage under cultivation. In Oregon, only 8 of 23 total growers responded, of which only 4 provided adequate revenues and expenditures data. These growers represented roughly 61% of total acres production. The project team received 100% participation from all 16 growers in CA.

The analysis of survey results is still in progress, however, partners at Northern Economics, Inc. have completed a draft report entitled, "The Economic Impact of Shellfish Aquaculture in Washington, Oregon, and California." This report explains methodologies used and summarizes, where possible, employment, production and revenues, and economic impact (multipliers), and acreage and expenditures for each state.

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

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

Please provide the following details for each student:

Student Name:
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:
Major/Degree field:
Major Professor:
Dissertation/Thesis title (actual or anticipated):
Date of graduation (actual or anticipated):
If student has graduated, please provide name of current employer, if known:

5. PARTNERSHIPS

Northern Economics – Dr. Katherine Wellman is a Co-Investigator and worked with colleagues to process survey responses.
Kuiper Mariculture – Provided input into survey development and personally surveyed all shellfish growers in CA.
Oregon Sea Grant – Assisted in survey deployment and solicitation.
Industry representatives: Dedicated significant time to develop and complete detailed expenditures surveys.
Pacific Coast Shellfish Growers Association: Assisted in survey design, advertising, and encouraged member involvement.

6. OUTREACH AND INFORMATION/TECHNOLOGY TRANSFER

(for any activities not captured in the metrics below)

During this period, presentations were given at the National Shellfisheries Association (NSA) annual meeting (March 2012) and the Pacific Coast Shellfish Growers Association (PCSGA) to encourage participation, explain project goals, and share preliminary results.

7. LEVERAGED FUNDS
(projects, sources and amounts – see instructions)

N/A

SEE BELOW FOR PERFORMANCE METRICS REPORTING REQUIREMENTS

8. PERFORMANCE METRICS

A. Economic (market and non-market) benefits derived from Sea Grant activities.
CATEGORIES: economic benefit ($), businesses created, businesses retained, jobs created, jobs retained, patents/licenses.

Economic benefit category (limited to list above)	Description	Actual (2/1/2012-1/31/2013)	Anticipated (2/1/2013-1/31/2014)
[EXAMPLE] Economic benefit ($)	Sea Grant brokers lane agreements annually with West Coast crab fishermen and towboat companies, minimizing usage overlap. Reduced interaction between these industries decreases the need for crab gear replacement and reduces towboat repair costs, valued at an estimated $1 million each year.	$1,000,000	$1,000,000
N/A			

B. Number of tools, technologies and information services that are used by NOAA partners/customers (defined very broadly to be very inclusive) to improve ecosystem-based management.

	Actual (2/1/2012-1/31/2013)		Anticipated (2/1/2013-1/31/2014)	
Tool, technology or information service	**Developed**	**Used**	**Developed**	**Used**
[EXAMPLE] New datasets detailing maturation cycles, fecundity dynamics and genetic relationships of hatchery and wild geoduck are used by shellfish growers to increase the genetic diversity of hatchery-produced geoduck seed.	Y	Y	N	Y
Revenues and expenditures data for shellfish operations in WA, OR, and CA are used to demonstrate the economic impact of the industry.	Y	N	Y	Y
Information and case studies of barriers to entry for the shellfish industries in WA, OR, and CA are used to inform policy and regulatory decisions.	N	N	Y	Y

C. Number of coastal communities (including cities, municipalities, small towns, and neighborhoods that have a cohesive identity) that have adopted or implemented hazard resiliency practices to prepare for and respond to/minimize coastal hazardous events.

		Number of resiliency trainings/technical assistance services *provided*		**Community hazard resiliency improved (e.g., changes in zoning ordinances)? Y/N**	
Name of coastal community	**County of coastal community**	**Actual (2/1/2012-1/31/2013)**	**Anticipated (2/1/2013-1/31/2014)**	**Actual (2/1/2012-1/31/2013)**	**Anticipated (2/1/2013-1/31/2014)**
[EXAMPLE] Port Angeles, WA	Clallam	1	4	N	Y
N/A					

D. Additional national performance measures - *NOTE: As relevant, the metrics below should correlate with tools, technologies and information services listed above (e.g., fishermen using a new SG-developed technique should match a tool/technology listed above; resource managers using new approaches should match a tool/technology listed above)*

Performance measure		**Actual (2/1/2012-1/31/2013)**	**Anticipated (2/1/2013-1/31/2014)**
Number of fishers, consumers and seafood industry stakeholders who modify their practices using knowledge gained in fisheries sustainability, seafood safety, and the health benefits of seafood.	Number of stakeholders modifying practices		
	Number of fishers using new techniques		
Number of coastal communities that have adopted or implemented sustainable (economic and environmental) development practices and policies (e.g., land-use planning, working waterfronts, energy efficiency, climate change planning, smart growth measures, green infrastructure) as a result of Sea Grant activities.			
Number of coastal communities that have restored degraded ecosystems as a result of Sea Grant activities.			
Number of acres of degraded ecosystems restored as a result of Sea Grant activities.			
Number of resource managers who use ecosystem-based approaches in the management of land, water, and living resources in coastal areas as a result of Sea			

Grant activities.		

E. Focus area metrics – please estimate your contribution to these metrics for the reporting period (2/1/2010-1/31/2011).

Metric	**Contribution**
Volunteer hours (estimated number of hours that citizens volunteer without payment for their time and services to help a state Sea Grant program accomplish the goals and objectives of its four-year plan)	241
K-12 students reached (estimated number of K-12 students who attend a Sea-Grant sponsored event as well as the number of students reached by teachers who have utilized information from a Sea Grant project)	
Curricula developed (number of curricula developed with Sea Grant support, assistance or influence, including formal education courses, school or university instructional materials, lesson plans, audio-visual materials, teacher guides and textbooks.	
Sea Grant-sponsored/organized meetings, workshops and conferences (number of events for which Sea Grant support was integral – planning, financial, personnel contributions)	
Attendees at Sea Grant-sponsored/organized meetings (estimated number of attendees at the events counted in the preceding metric)	