

Completion Report

Branch, Trevor (Costello)

Period: 2/1/2012 - 1/31/2013

Project: R/COCC/SS-1 - Social and economic effects of ITQs on the West Coast Groundfish fishery: solving the weak stock/bycatch problem

:: STUDENTS SUPPORTED

Kuriyama, Peter, ptrkrym@uw.edu, University of Washington, SAFS, status:new, field of study:Fisheries, advisor:Trevor Branch, degree type:MS, degree date:2014-12-01, degree completed this period:No
Student Project Title: Effects of catch shares on discarding and fishing effort

Involvement with Sea Grant This Period: Graduate student

Post-Graduation Plans: Unknown

Kuriyama, Peter, ptrkrym@uw.edu, University of Washington, SAFS, status:new, field of study:Fisheries, advisor:Trevor Branch, degree type:MS, degree date:2014-12-01, degree completed this period:No
Student Project Title: Effects of catch shares on discarding and fishing effort

Involvement with Sea Grant This Period: Graduate student

Post-Graduation Plans: Unknown

:: CONFERENCES / PRESENTATIONS

Presentation by student Peter Kuriyama on catch shares for the Center for Ocean Sciences Education Excellence - Ocean Learning Communities, farewell event. Presented to 150 scientists, educators, academics, and families., public/profession presentation, 150 attendees, 2012-11-30

Presentation by student Peter Kuriyama on catch shares for the Center for Ocean Sciences Education Excellence - Ocean Learning Communities, farewell event. Presented to 150 scientists, educators, academics, and families., public/profession presentation, 150 attendees, 2012-11-30

:: 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: 0

HACCP - Number of people with new certifications: 0

**Cumulative Clean Marina Program -
certifications: 0**

:: PATENTS AND ECONOMIC BENEFITS

No Benefits Reported This Period

:: TOOLS, TECH, AND INFORMATION SERVICES

None Reported This Period

:: HAZARD RESILIENCE IN COASTAL COMMUNITIES

Name of coastal community	County	Number of resiliency trainings / technical assistance services provided	Was community hazard resiliency improved (e.g., via changes in zoning ordinances) ?
None		Actual (2/1/2012 - 1/31/2013) : 0	Yes
		Anticipated (2/1/2013 - 1/31/2014) : 0	Yes

:: 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

Partner Name: Fisheries and Oceans Canada (DFO)

Partner Name: Northwest Fisheries Science Center (US DOC)

Partner Name: University of California

:: IMPACTS AND ACCOMPLISHMENTS

Title: Washington Sea Grant supports a regional collaboration to assess the ecological, social and economic effects of catch shares in the West Coast groundfish fishery

Type: accomplishment

Relevance, Response, Results:

Relevance: The West Coast groundfish fishery catches over 90 species, including rockfish, sole, cod and sablefish, many of which are particularly vulnerable to overfishing. In 2011, West Coast managers implemented one of the most complex examples of the system of allocating catch shares known as individual fishing quotas (IFQs). Fishery revenues rose to \$54 million in the first year, 31 percent above historical averages. Although the economic benefits of IFQs are widely accepted, participants fear they may adversely affect fishing communities and fail to address conservation concerns such as bycatch of weak and depleted stocks. Response: Washington Sea Grant partnered with California Sea Grant to examine the effects of the IFQ system in the West Coast groundfish fishery. Researchers will document changes in fishermen's behavior and resulting ecological, social and economic impacts. WSG funds support a graduate research assistant who will compare discard rates for a wide range of species in the U.S. and British Columbia trawl fisheries before and after catch shares were implemented. The research assistant will also examine changes in where fishing occurs on the West Coast. Findings will inform fisheries policy and management by clarifying the potential conservation and economic benefits of catch-share systems. Results: In 2012, the research team obtained and began analyzing discard data from British Columbia, and requested U.S. data on discards and spatial fishing patterns. In November, the research assistant spoke on catch shares to 150 scientists, educators and others at a Center for Ocean Sciences Education Excellence event.

Recap: Washington Sea Grant joins in a comprehensive study of the effects of individual fishing quotas on West Coast groundfish fisheries.

Comments: Primary Focus Area – LME (SSSS) Secondary Focus Area – COCC (SCD) Associated Goals: Support conservation and sustainable use of living marine resources through effective and responsible approaches, tools, model 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 Efficiency)

Related Partners:

Fisheries and Oceans Canada (DFO)
Northwest Fisheries Science Center (US DOC, NOAA, NMFS, NWFSC)
University of California, Santa Barbara (UCSB)

:: PUBLICATIONS

No Publications Reported This Period

:: OTHER DOCUMENTS

No Documents Reported This Period

:: LEVERAGED FUNDS

Type: influenced Period: 2012-05-01::2016-12-31 Amount: \$52232

Purpose: Ecological effects of catch share programs in New England and U.S.

West Coast groundfish fisheries

Source: Gordon and Betty Moore Foundation

Progress report narrative: “Social and economic effects of ITQs on the West Coast groundfish fishery: solving the weak stock/bycatch problem”

Trevor A. Branch, University of Washington, to Washington Sea Grant

Activities carried out

Graduate student Kuriyama

A graduate student, Peter Kuriyama, was identified and brought on board for the project on the usual University of Washington hiring schedule, i.e. for Fall quarter 2012. It was not possible to obtain a student for a 1 February start date to coincide with the start of the grant.

Two projects are intended for his MS thesis: 1. Compare the discard rates for a wide range of species in the U.S. west coast groundfish trawl fishery both before and after catch shares were implemented, and before and after catch shares were implemented in British Columbia. 2. Examine spatial patterns in fishing effort before and after catch shares were implemented in the U.S. west coast fishery.

For project 1 on discards, the required data have already been provided for the B.C. fishery from Kate Rutherford, Department of Fisheries and Oceans Canada, in Nanaimo. Analysis is underway. A data request was submitted for similar data from the U.S. west coast fishery in November to NOAA, and is being discussed further this week with Jon Mcveigh at the NWFSC.

For project 2 on spatial fishing effort, data requests have been submitted by our UC Santa Barbara counterparts (Steve Gaines) and agreements signed with California, Washington and Oregon states to obtain access to fishing effort data pooled by larger regions (to preserve confidentiality). We are awaiting the datasets for this stage of the project.

Broader collaboration

UW participants are working together with Chris Costello, Steve Gaines and Robert Deacon at UC Santa Barbara and several of their postdocs and students. We have had regular progress calls with them, but assume they will describe their own activities in their report to California Sea Grant. Additionally, PI Hilborn and Kotaro Ono visited UCSB last year to further the collaborations and talk about joint projects.

Presentations and papers

Peter Kuriyama presented a talk on catch shares for the Center for Ocean Sciences Education Excellence - Ocean Learning Communities, farewell event. Presented to 150 scientists, educators, academics, and families on 30 November 2012.

Participants

PIs: Trevor Branch, Ray Hilborn

Students: Peter Kuriyama (supported by Sea Grant), Kotaro Ono (working on a similar project)

Results

We are currently comparing the before and after discard rates for species in British Columbia to examine the effect of catch shares over time. Student Kuriyama is in his second quarter at UW and taking required classes, which will assist in the completion of his project. Further analyses await data.

Challenges encountered

We have experienced unexpected delays in obtaining datasets for both chapters but seem likely to obtain the remaining data for the first project within the next two weeks, after a meeting this week to discuss our data request of November.

Changes in project direction

None so far.

Related projects

PI Branch is funded to work with Prof. Tim Essington on a related project by the Moore Foundation (via MRAG USA) to produce ecological indicators to measure the effects of catch share programs. The two focal systems are the US west coast groundfish fishery, and sector management in the New England groundfish fishery. Some of the indicators are common to both projects (e.g. changes in discard rates over time), and it is likely that we will use the Moore project money (five years) to continue funding Peter Kuriyama's work after the Sea Grant funding finishes. The two projects are highly complementary.

Kotaro Ono is completing his PhD on how fishing affects weak stock management, which is also highly related to this project, but is funded by another grant.