

**JIMAR, PFRP ANNUAL PROGRESS REPORT  
FY 2004**

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**Project Proposal Title:** Economic Fieldwork on Pelagic Fisheries in Hawaii

**Funding Agency:** NOAA

**1. Purpose of the project and indicative results**

This primary objective of this multi-year project has been to provide detailed economic information (especially cost of operation) on Hawaii-based domestic pelagic fishing vessels: longliners, trollers and handliners, and charter boats. Cost-earnings reports (published as JIMAR/SOEST reports) on each of these fisheries have been prepared since the project began in 1994. In FY02 an update to the longline cost-earnings information was conducted, and a JIMAR/SOEST report, Economic and Operational Characteristics of the Hawaii-based Longline Fleet in 2000 by Joseph M. O'Malley and Samuel G. Pooley, was published in FY03. The data from these studies have been used in a variety of economic and social analyses of these fisheries, both within the project, the other PFRP projects, and by the National Marine Fisheries Service.

In October 31, 2003, this project received additional funds for two research projects:

- (1) \$72.7k for wrapping up the longline research (funded by PFRP in January 2002), and
- (2) \$112.01k for blue marine evaluation.

**2. Progress during FY 2004. Provide a thorough discussion of accomplishments and problems.**

The Longline *wrap-up* project:

The main objective of the project is to resurvey the Hawaii-based domestic longline fleet to provide revised baseline data for conducting regulatory impact analyses on forthcoming regulations. The re-studying project interviewed 62 vessels, about half of the fleet, during 2000-2001 on their 2000 vessel operations through person-to-person interview with vessel owners, captains, and crew. A report based on the study was completed and published (JIMAR contribution 03-348) in 2003.

In FY 2004, the JIMAR staff extended the re-studying effort to the Vietnamese-American operated vessels due to significant portion of these vessels had not been included into the survey during 2000-2001. Research progress included:

- Investigated the fleet dynamic (vessel re-location) of the Vietnamese-American operated vessels, which usually targeted swordfish, after the swordfish fish ban in 2000;
- Conducted a few interviews to the fishermen who remained in Hawaii and switched to tuna fishing;
- Hired a research assistant, Adam M. Griesemer, in December 16, 2003, to assist the field work-study.

#### Other project activities

- **An Update on 1992 Input-Output (I/O) Model to 1997 Model**  
The input-output model can be used to estimate economic contributions of fishery industry to the state economy, and evaluate the regulatory impacts on Hawaii state economy. The project updated the 1992 fishery input-output model based on the 1997 Hawaii State Input-Output Model. In addition, the 1997 model broke the longline sector into tuna longline and swordfish longline fishing. The updated model allows to evaluate the regulatory impacts of recent and potential regulatory policies on the longline fishery in Hawaii.
- **Assessment on Fishing Capacity**  
Recent analysis on the quantitative measurement of fishing capacity in the Western Pacific Region covered capacity analysis for major fisheries including Hawai'i Pelagic longline fishery, and American Samoa Pelagic longline fishery.
- **A study on Hawaii Tuna Market and Price Determination**  
This study continued the previous PFRP research project which analyzes the price relationships in the Hawaii pelagic seafood market through a statistical approach. The main findings from the study was presented the November 2003 PFRP PI meeting, the PowerPoint presentation was presented in <http://www.soest.hawaii.edu/PFRP/dec03mtg/pan.pdf>
- **Economic Evaluation on Hawaii fishing Tournaments**  
A pilot study was conducted in 2003 to develop and field-tested survey questionnaires and investigated appropriate means to survey the tournament participants; Outreach activities also have been conducted to acquire supports from fishing tournament organizers for the study; JIMAR staff, Adam M. Griesemer and Jenny Schultz, were involved in this project.

## The Blue Marlin Valuation Project

Dr. Stewart Allen, the PI for this project, is going to prepare a separated progress report for this project.

### **3. Plans for the next fiscal year**

- Continue interviewing longline fishermen regarding to the operating costs, especially the costs associated with technological improvement that may affect capacity of the pelagic fishing; Monitor any swordfish fishing activities resulted from that the swordfish ban was lifted recently;
- A research proposal on 'Evaluate Changes and Improvements in Fishing Technology and their Impacts on Fishing Effort and Fishing Capacity in the Hawaii longline fisheries' was submitted to PFRP to request funding to support for the study.

### **4. List of papers published in refereed journals during FY 2004.**

N/A

### **5. Other papers, technical reports, meeting presentations, etc.**

Pan, Minling

2003. Quantitative Measurement of Fishing Capacity for the Western Pacific Fisheries (under review)

Pan, Minling, and Samuel G. Pooley

2004. Tuna Price in Relation to Economic Factors and Sea Surface Temperature (submitted for publication)

PingSun Leung, Cai, J., Pooley, Samuel. G., and Pan, Minling

2004. Linkages of Fishing Sectors to Hawaii's Economy and Economic Impacts of Hawaii's Longlining Regulations (under review)

SMS Research Inc.

2004. Fishery Input-Output Model & Methodology I/O paper (working paper – prepared for JIMAR publication)

### **6. Names of students graduating with MS or Ph.D. degrees during FY 2004. Include title of thesis or dissertation.**

N/A

### **7. For multi-year projects, provide budget for the next year on a separate page.**

N/A