

## JIMAR/PFRP ANNUAL REPORT FOR 1998/99

**Principal Investigator:** Samuel G. Pooley, Honolulu Laboratory, NMFS

**Project Title:**

Hawaii pelagic fishing vessels economics (RCUH # 2046/2123)  
aka *Hawaii Fleet, Industry, and Vessel Economics (HIFIVE)*

**Funding Agency:** NOAA/Pelagic Fisheries Research Program/JIMAR/University of Hawaii

1. Purpose of Project

The objective of this research is to provide fishery management information based on the economic characteristics and dynamics of the Hawaii longline and troll-handline and charter fishing fleets, as well as on the dynamics of seafood markets and the motivations of clients of the charter-boat fleets.

2. Progress during 1998/99

Progress in 1998 and early in 1999 has centered on two areas: the charter boat segment of the domestic pelagic fishery and the local market for pelagic species.

Glazier has revised and re-tested the charter boat patron instrument early in 1999, with fielding expected by May 1999. This study is composed of two parts: patron expenditures and motivations, and patrons self-valuation of their charter boat fishing experience. Approximately 500 charter boat fishing patrons are expected to complete a voluntary self-administered instrument.

Pan completed a draft report using a time-series linear regression analysis of factors affecting the price of pelagic species in Hawaii using the Hawaii Division of Aquatic Resources (HDAR) commercial catch reports. The paper found quite robust results for particular species, as well as substitution effects between several related species. Additional analysis of the price-quantity relationship of bigeye tuna was required and is on-going. A logical extension of this research would be in co-integration of seafood price time-series.

Pan also worked on a number of data series which would update the parameters for her dissertation programming model of the Hawaii fishery (part of the PingSun Leung JIMAR Pelagics project).

3. Plans for 1999

**Analysis of charter boat patrons motivations (demand for charter boat services)**

Work on compiling economic information on charter boat patrons, including use of hypothetical valuation techniques, will be conducted throughout 1999.

**Economic production function analysis**

A proposal for additional longline and small boat analysis was partially funded by PFRP early in 1999 and will involve a standard economic production function approach to these segments of Hawaii's industry.

4. & 5. List of Papers and Technical Reports (attached)

6. Names of graduates. Rita E. Curtis, doctorate, University of Maryland (1999)

## Publications & Reports

Curtis, Rita E.

1999. A Random Utility Model of Dynamic Supply Response under Uncertainty: The Case of the Hawaii Longline Fishery. (Doctoral dissertation in the University of Maryland, Department of Agricultural and Resource Economics.)

1998. Spatial allocation of effort: a dynamic discrete choice model of short run supply response in the Hawaii longline fishery. (Graduate paper in the University of Maryland, Department of Agricultural and Resource Economics.)

1998. The welfare effects of reducing sea turtle interactions: an application to the Hawaii longline fishery. (Graduate paper with the University of Maryland, Department of Agricultural and Resource Economics.)

1997. The effect of temporal aggregation in fishery supply models. (Paper submitted for publication.)

1996. Short-run supply response in a multi-species fishery. (Paper submitted for publication.)

**Hamilton, Marcia**

**1999. A system for classifying small boat fishermen in Hawaii. *Mar. Res. Economics*, 13: 289-291.**

Hamilton, Marcia S.

1998a. Cost-earnings study of Hawaii's charter fishing industry, 1996-97. SOEST 98-08. University of Hawaii.

1998b. Small-boat fishery study complete. Hawaii Fishing News. January '98.

Hamilton, Marcia S., Rita E. Curtis, Michael D. Travis.

1996. Cost-earnings study of the Hawaii-based domestic longline fleet. SOEST Publication 96-03. University of Hawaii: Honolulu, HI. 59 p.

1996. Hawaii longline vessel economics. Marine Resource Economics. 11(2): 137-140.

Hamilton, Marcia S and Stephen W. Huffman.

1997. Cost-earnings study of Hawaii's small boat fishery, 1995-96. University of Hawaii SOEST 97-06/JIMAR 97-314. 102 p.

Neubauer, Deane and Kerry Burch.

1998. Alternative perspectives on fishery management decision-making. (Under review)

Travis, Michael D.

1998. Chronology of regulatory events relevant to Hawaii's pelagic longline fishery, 1987-96. (Under review)

1998. Fishing effort, power, and capacity: the importance and evolution of terminology in fisheries science. (Forthcoming paper)

Walker, Julie.

1997. Sociology of Hawaii charter boat fishing. SOEST JIMAR Contribution 97-309. University of Hawaii. 50 p.

1996. Work and leisure in Hawaii small boat pelagic fishing. Masters thesis. School of Marine Affairs, University of Washington. 78 p.

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