

**JIMAR/PFRP ANNUAL PROGRESS REPORT
FY 2003**

P.I. Name: William A. Walsh

Samuel G. Pooley ceased active involvement in this project upon assuming the directorship of the Honolulu Laboratory.

Project Title: Distributions, Histories, and Recent Catch Trends with Six Fish Taxa Taken as Incidental Catch by the Hawaii-based Commercial Longline Fishery

Funding Agency: NOAA/JIMAR

Project Purpose and Results:

This project is intended to provide corrected catch rates for blue shark, blue marlin, mahimahi, wahoo, opah, and pomfret taken by the Hawaii-based longline fishery. This has entailed development of statistical models from observer data with subsequent application to the logbook data from unobserved sets as comparison standards and as descriptors of the effects of extrinsic factors on catch rates. This project is also contributing to improved linkage of data gathered by the NMFS Observer Program, the mandatory logbook program, and auction data from the United Fishing Agency, Ltd., Honolulu, Hawai'i.

Progress during FY 2003:

Recent activities under this project have focused on producing the deliverables. A paper that summarizes the conceptual basis and methods employed under this project has been submitted and will be revised according to reviewers' recommendations (see below). A second paper that presents corrected catch rates for blue marlin, obtained by development of a generalized additive model from observer data and subsequent application to logbook data from unobserved sets, is in preparation (this manuscript should be ready for its internal reviews and possibly submittal before the end FY 2003). Preliminary efforts to improve linkage between observer, logbook, and auction data have also been conducted; Mr. Gerald Epstein (former HL employee), Mr. Frank Cabacungan, Mr. Dios P. Gonzales and Ms. Karen Sender (current HL employees) have all contributed their time and expertise in this context. Ms. Sender, in particular, has improved an error reporting and documentation system for the observer data and thereby facilitated collaboration between the Honolulu Laboratory and the observer program regarding data accuracy. She has proposed that such a system be "genericized" for use with the logbooks, in which case documentation of logbook data quality concerns should be similarly facilitated. Mr. Thomas Swenarton has been the participant from the observer office, and his efforts are also gratefully acknowledged.

No specific new problems have been encountered in FY 2003. The most common temporary diversions have consisted of the need to perform preliminary evaluations of

observer data when these records become available; the checks generally require several workdays each quarter after the data releases.

Plans for FY 2004:

The intention is to continue to provide completed deliverables. The likely format will consist of a NOAA Technical Memorandum that presents corrected catch rates for opah, pomfrets, and wahoo and another journal paper about blue shark and mahimahi, which comprise the preponderance of the incidental catch of this fleet. Also, the data linkage and quality control efforts will be ongoing activities.

Paper Published in FY 2003:

Walsh, W.A., P. Kleiber and M. McCracken. 2002. Comparison of logbook reports of incidental blue shark catch rates to fishery observer data by application of a generalized additive model. Fisheries Research 58:78-94.

Paper Submitted in FY 2003:

"Integrated use of observers and logbook data sets to enhance fisheries monitoring", by William A. Walsh. Undergoing revision after review by the North American Journal of Fisheries Management.

Meeting Presentations in FY 2003:

Presentation to the national meeting of the American Fisheries Society, Baltimore, MD, August 2002:

“Development and Application of Generalized Additive Models to Correct Incidental Catch Rates for Pelagic Marine Fishes in the Hawaii-based Longline Fishery”, by William A. Walsh and Samuel G. Pooley.

Presentation to the Standing Committee on Tuna and Billfish, Honolulu, HI, July 2002 (with a working paper submittal):

“Development and Application of Generalized Additive Models to Correct Incidental Catch Rates in the Hawaii-based Longline Fishery”, by William A. Walsh and Samuel G. Pooley.

Academic Advisory Responsibilities and Activities:

None

Budgetary Requests:

This project has completed its scheduled duration. No additional funds are requested.