

JIMAR – PFRP ANNUAL REPORT FOR FY 2005

P.I./Sponsor Name: William A. Walsh (JIMAR/PFRP) and Keith A. Bigelow (NMFS).

Samuel G. Pooley (NMFS) participated in the development of this project, but has not been actively involved in it since assuming the directorship of the NMFS Honolulu Laboratory (subsequently re-designated the Pacific Islands Fisheries Science Center).

Project Proposal 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

NOAA Goal (Check those that apply):

- To protect, restore, and manage the use of coastal and ocean resources through ecosystem-base management
- To understand climate variability and change to enhance society's ability to plan and respond
- To serve society's needs for weather and water information
- To support the nation's commerce with information for safe, efficient, and environmentally sound transportation

1. Purpose of the Project (one paragraph)

This project was designed to provide corrected catch rates for blue shark, blue marlin, mahimahi, wahoo, opah, and pomfrets taken by the Hawaii-based longline fishery. It has entailed development of statistical models from observer data with subsequent application to the logbook data from unobserved sets as comparison standards. This project is also contributing to improved linkage of data gathered by the NMFS Observer Program, the logbook program, and auction data from the United Fishing Agency, Ltd., Honolulu, Hawaii.

2. Progress during FY 2005 (One-two paragraphs, including a comparison of the actual accomplishments to the objectives established for the period and the reasons for slippage if established objectives were not met):

Recent work conducted for this project has been devoted to completing a manuscript that presents corrected catch rates and describes logbook data accuracy for blue marlin in the Hawaii-based longline fishery from March 1994 through June 2002. The manuscript has been revised after review and is in press at Fisheries Research (a peer-reviewed journal).

There were no specific new problems encountered in FY 2005. The usual difficulty with the evaluation of data quality is that it tends to be laborious and time-consuming. The blue marlin analysis, for example, required detailed checks on and correction of the catches from approximately 500 fishing trips since 1994.

The marlins project has contributed to improve linkage between observer, logbook, and auction data, in the sense that the work was conducted as an integrated analysis predicated upon use of the fishery observer data to develop a statistical model, application of its coefficients to logbook data as a comparison standard, and use of sales data to verify analytical results. The corrected blue marlin logbook catch data generated by these analyses have been incorporated into the ORACLE database at the Pacific Islands Fisheries Science Center.

Work conducted under this and an earlier, related project has been recognized and incorporated into agency-level planning at NOAA Fisheries. "Evaluating Bycatch: A National Approach to Standardized Bycatch Monitoring Programs", published by the NMFS in June 2003, cited Walsh (2000) ("Comparisons of fish catches reported by fishery observers and in logbooks of Hawaii-based longline vessels"; Southwest Fisheries Science Center Administrative Report H-00-07) and Walsh et al. (2002) ("Comparison of logbook reports of incidental blue shark catch rates by Hawaii-based longline vessels to fishery observer data by application of a generalized additive model"; Fisheries Research 58:79-94) in relation to the accuracy of both observer and logbook data and characterization of forms of bias in logbooks.

3. Plans for the next fiscal year (one paragraph):

The scheduled duration of this project has elapsed and its principal output has been accepted for publication in a peer-reviewed journal. As such, the project is seen as completed. Because the data QC and linkage activities are ongoing and involve some of the species listed under this project, results with them are likely to be mentioned in future reports for other projects (being conducted by Walsh).

4. List of papers published in refereed journals during FY 2005.

A manuscript describing the accuracy of logbook data for blue marlin is in press at Fisheries Research (see above).

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

None

6. Graduates (Names of students graduating with MS or PhD degrees during FY 2005. Provide titles of their thesis or dissertation):

None

7. Awards (List awards given to JIMAR employees or to the project itself during the period):

None

8. Publication Count (Total count of publications for the reporting period and previous periods categorized by NOAA lead author and Institute (or subgrantee) lead author and whether it was peer-reviewed or non peer-reviewed (not including presentations):

	JL Lead Author			NOAA Lead Author			Other Lead Author		
	FY03	FY04	FY05	FY03	FY04	FY05	FY03	FY04	FY05
Peer-reviewed			1 (in press)						
Non-peer reviewed		1							

Non-peer reviewed paper:

Working Paper 3: “Analysis of blue marlin (*Makaira nigricans*) catch rates in the Hawaii-based longline fishery with a generalized additive model and commercial sales data.” Presentation to the 4th Meeting of the Interim Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC), 26 January-4 February, 2004, Honolulu, Hawaii, USA.

9. Students and Post-docs (Number of students and post-docs that were associated with NOAA funded research. Please indicate if they received any NOAA funding. For institutes that award subcontracts, please include information from your subgrantees):

None

10. Personnel:

- (i) Number of employees by job title and terminal degree that received more than 50% support from NOAA, including visiting scientists (this information is not required from subgrantees):

No salaries were paid from this grant in FY 2005.

- (ii) Number of employees/students that received 100% of their funding from an OAR laboratory and/or are located within that laboratory.

None

(iii) Number of employees/students that were hired by NOAA during the past year:

None

11. Images and Captions (JIMAR will be including images in the annual report. Please send two of your best high-resolution, color images (photo, graphic, schematic) as a JPEG or TIFF with a caption for each image. Hardcopies of images can be dropped off at the JIMAR office if no electronic versions are available.

Not applicable