

JIMAR – PFRP ANNUAL REPORT FOR FY 2006

P.I./Sponsor Name: Kim Holland

Project Proposal Title: Aggregation Behavior of Small FAD-associated Yellowfin Tuna and Size-dependent Vertical Stratification

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)

To determine the FAD-associated aggregation behavior of very small yellowfin tuna and to determine if aggregated small tuna are vertically stratified by size when they are found in aggregations of mixed sizes

2. Progress during FY 2006 (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):

Approximately 46 FAD-associated small yellowfin tuna were captured and equipped with electronic (acoustic) transmitters and all 13 FADs around the island of Oahu were equipped with Vemco VR2 acoustic receivers. Of the 46 tuna, 13 fish < 40 cm FL and 20 fish >60 cm FL were tagged with pressure sensitive transmitters that could measure the depth of these animals when they were in the vicinity of any of the instrumented FADs. These data have been analyzed on a preliminary basis and the data indicate that size-dependent vertical stratification does indeed occur.

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

Release additional small tuna carrying acoustic tags and analyze data currently in hand.

4. List of papers published in refereed journals during FY 2006.

5. Other papers, technical reports, meeting presentations, etc.
 Swimming Depths of Differently Sized Yellowfin Tuna Occurring in Mixed-Sized Aggregations. Kim Holland, David Itano and Laurent Dagorn. Paper presented at 2006 Annual Tuna Conference.

6. Graduates (Names of students graduating with MS or PhD degrees during FY 2006. Provide titles of their thesis or dissertation):

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):

	JI Lead Author			NOAA Lead Author			Other Lead Author		
	FY04	FY05	FY06	FY04	FY05	FY06	FY04	FY05	FY06
Peer-reviewed									
Non-peer reviewed									

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):

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): Fisheries Technician (BS)

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

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

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.



● Caption 1: Very small tuna released with depth-sensitive transmitter tag