

## JIMAR ANNUAL REPORT FOR FY 2008

P.I./SPONSOR NAME: Kim Holland, Laurent Dagorn

NOAA OFFICE (Of the primary technical contact): PIFSC

PROJECT PROPOSAL TITLE: "Instrumented Buoys as Autonomous Observatories of Pelagic Ecosystems",

FUNDING AGENCY: JIMAR/NOAA

NOAA GOAL (Check those that apply):

- To protect, restore, and manage the use of coastal and ocean resources through ecosystem-based 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

PURPOSE OF THE PROJECT (One paragraph): Development and testing of autonomous devices for observing and quantifying the assemblage of pelagic organisms (especially those of commercial interest) that are found in association with fish aggregating devices (FADs)

### PROGRESS DURING FY 2008

After initial delays in construction, the prototype autonomous device was completed and tested by colleagues at SIO. Specialized batteries required for deploying the device in Hawaii for field testing have been acquired. Budget shortfalls at SIO resulted in the device not being equipped with a robust housing suitable for field deployment in Hawaii. This housing will be constructed in Hawaii with remaining project funds.

### PLANS FOR THE NEXT FISCAL YEAR

Budget shortfalls associated with the efforts of our collaborators at Scripps Institute of Oceanography resulted in the prototype device not being equipped with a robust housing suitable for field deployment in Hawaii. This housing will be constructed in Hawaii with remaining project funds. Remaining funds will also be used to underwrite the construction of a housing and vessel costs associated with deploying and testing the device.

LIST OF PAPERS PUBLISHED IN REFERRED JOURNALS DURING FY 2008

Dagorn L, Holland K, Dalen J, Brault P, Vrignaud C, Josse E, Moreno G, Brehmer P, Nottestad L, Georgakarakos S, Trigonis V, Taquet M, Aumeeruddy R, Girard C, Itano D, Sancho G. 2007. New instruments to observe pelagic fish around FADs: satellite-linked acoustic receivers and buoys with sonar and cameras. In: Lyle J.M., Furlani D.M., Buxton C.D. (Eds), Cutting-edge technologies in fish and fisheries science. *Australian Society for Fish Biology Workshop Proceedings, Hobart, Tasmania, August 2006, Australian Society for Fish Biology.*

Papastamatiou, Y.P., S.J. Purkis and K.N. Holland. 2007. The response of gastric pH and motility to fasting and feeding in free swimming blacktip reef sharks, *Carcharhinus melanopterus*. *J. Exp. Mar. Biol. Ecol.* 345:129-140

Dagorn , L., D. Pincock, C. Girard, K. Holland, M. Taquet, G. Sancho, D. Itano and R. Aumeeruddy. 2007. Satellite-linked acoustic receivers to observe behavior of fish in remote areas. *Aquatic Living Res*, 20:4, October-December 2007.

Whitney, N.M., Y P. Papastamatiou<sup>1</sup>, K. N. Holland and C. G. Lowe. 2007. Use of an acceleration data logger to measure diel activity patterns in captive whitetip reef sharks, *Triaenodon obesus*. *Aquatic Living Res*, 20:4, October-December 2007.

Meyer, C.M., W.C. Burgess, Y.P. Papastamatiou and K.N. Holland. 2007. Use of an implanted sound recording device (Bioacoustic Probe) to document the acoustic environment of a blacktip reef shark (*Carcharhinus melanopterus*). *Aquatic Living Res*, 20:4, October-December 2007

Papastamatiou, Y.P., C.M Meyer and K.N. Holland. 2007. A new acoustic pH transmitter for studying the feeding habits of free-ranging sharks. *Aquatic Living Res.*, 20:4, October-December 2007

OTHER PAPERS, TECHNICAL REPORTS, ETC.:

GRADUATES (Names of students graduating with MS or PhD degrees during FY 2008; Titles of their Thesis or Dissertation):

AWARDS (List awards given to JIMAR employees or to the project itself during the period):

PUBLICATION COUNT (Total count of publications for the reporting period and 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
Peer Reviewed	2		4
Non-Peer Reviewed			

**PERSONNEL:**

For projects that awarded subcontracts in the fiscal year, please provide the number of supported postdocs and students from each subgrantee.

**IMAGES AND CAPTIONS** (We will also be including images for the annual report.

Please send two of your best high-resolution, color images (photo, graphic, schematic) as a **JPEG or TIFF (300 dpi)** with a caption for each image. If you do not have an electronic version of the image, a hardcopy version may be dropped off at the JIMAR office located in the Marine Sciences Building, Room 312):

- Caption 1:
  
- Caption 2: