

JIMAR ANNUAL REPORT FOR FY 2008

P.I./SPONSOR NAME: Daniel Goodman, Jean-Dominique Lebreton, and John Sibert

NOAA OFFICE (Of the primary technical contact): PIFSC

PROJECT PROPOSAL TITLE: Integrated Modelling for Hawaiian Albatross Populations

FUNDING AGENCY: NOAA

NOAA GOAL (Check those that apply):

- To protect, restore, and manage the use of coastal and ocean resources
- 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): The purpose of the project was to analyze available information concerning Black-footed and Laysan Albatross with a view to assessing the conservation implications of the population dynamics with especial focus on the possible role of longline fisheries.

PROGRESS DURING FY 2008 (One-two paragraphs, including a comparison of the actual accomplishments to the objectives established for the period, and the reasons for the slippage if established objectives were not met):

In November 2007 this project funded a workshop in Honolulu to consider the available data and to compare the analyses done up to that time by this project (which has two separate components, Montana State University and Montpelier), a related JIMAR-PFRP project headed by Mark Maunder, and other analyses done by the US Fish and Wildlife Service. The upshot of the data discussion at the workshop was that there were serious problems with data availability and documentation, and possibly quality. The most thorough looking data set available on albatross demography was the mark-resight data originating from FWS field efforts, compiled and reconciled by personnel at the Patuxent lab, and further rectified and organized by Sophie Veran (Montpelier, this project), covering only Black-footed albatross, only at Tern Island, for banding years 1980-2003 and resight years 1992-2004. This project (MSU) concluded that these data were valid for estimating annual survival rates for adults in ages 7-11 for years 1998-2002. Bayesian estimation of survival rates for this subset, and subsequent correlation analysis of the years survival rate with the summed indices of swordfish and tuna tonnage in the North Pacific for those years showed a definite strong negative correlation. This confirmed the

analysis carried out by Sophie Veran (Montpelier) using other statistical methods and other judgments about the data, and since published. Full access to the fisheries data was never achieved so questions about the fishery indices used in this analysis remain unresolved. The correlation though is too strong to be dismissed, placing a high premium on resolving the questions about the fishery indices, and on obtaining mark-resight data for the years after 2004, to determine if the correlation continues to hold. This analysis has since been documented in a report.

PLANS FOR THE NEXT FISCAL YEAR (One paragraph):

Plan to write up for publication the Bayesian survival analysis.

LIST OF PAPERS PUBLISHED IN REFERRED JOURNALS DURING FY 2008, in the following format: (Author or authors with last name and initials, publication year: Article title. *Journal name*, volume, page range.) For example: Charney, J.G., and A. Eliassen, 1964: On the growth of the hurricane depression. *J. Atmos. Sci.*, 21, 68-75.

none

OTHER PAPERS, TECHNICAL REPORTS, ETC.:

Powerpoint presented at November workshop.
Full documentation of the MSU analysis.

GRADUATES (Names of students graduating with MS or PhD degrees during FY 2008; Titles of their Thesis or Dissertation): none

AWARDS (List awards given to JIMAR employees or to the project itself during the period): none

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			
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: