

October 31, 2002

F/SWC2:JO:FLF
CRNC0202-1.JO

CRUISE REPORT

VESSEL: F/V *Katy Mary* and F/V *Marie M*

CRUISE PERIOD: 8 September-7 October 2002

AREA OF OPERATION: Necker Island (Fig. 1)

TYPE OF OPERATION: Personnel from the Joint Institute for Marine and Atmospheric Research (JIMAR) conducted lobster trapping and tagging in the waters around Necker Island.

ITINERARY:

8 September Start of cruise. On board *Katy Mary*: Robert Marshall, Julie Belliveau, and Jamie Marchetti. Departed Pier 35 at 1300; transited to Necker Island. On board *Marie M*: Joseph O'Malley, Richard Kupfer, and Luke Szymanski. Departed Pier 37 at 0900; transited to Necker Island.

10 September Arrived at Necker Island. Commenced lobster trapping and tagging.

11 September-4 Oct Continued lobster trapping and tagging.

5 October Hauled lobster traps and departed Necker Island; transited to Oahu.

7 October Arrived Piers 35 and 36, Oahu. End of cruise.

MISSIONS AND RESULTS:

A. Collect, tag, and release live trap-captured Hawaiian spiny lobster (*Panulirus marginatus*) to provide data necessary for reestimation of key biological and population parameters for the Necker Island lobster stock.

1. Collect data on the abundance and species composition of trap-captured lobster at Necker Island; tag and release spiny lobster.

A total of 750 trapping stations were fished with black plastic lobster traps. Each trapping station consisted of a string of 20 traps. Traps, set between 0930 and 1900 hours, were baited with mackerel and allowed to soak overnight. A total of 300 traps/vessel were set each night. Approximately 14,000 *P. marginatus* were caught in 15,000 trap hauls for an overall CPUE of approximately .93 *P. marginatus*/trap-haul. Approximately 14,000 *P. marginatus* were tagged and released. Sex, carapace length, and reproductive information were collected from each lobster caught.

2. Obtain lobster length-frequency data to compare with previous research and commercial fishery data.

Sex, carapace length, and reproductive status were recorded for approximately 14,000 *P. marginatus*, 5,000 *Scyllarides squammosus* and 15 *Scyllarides haanii*.

3. Collect 100 *S. squammosus* for fecundity and sexual maturity analysis.

A total of 50 slipper lobster were collected, labeled, and frozen for sexual maturity analysis.

B. Piggyback Projects

1. Collect DNA of white-tip reef shark (*Triaenodon obesus*) for the University of Hawaii (UH), Department of Zoology.

A total of 30 DNA samples were collected from *T. obesus* and stored in labeled vials provided by UH.

2. Videotape trap setting/hauling operations via underwater camera attached to a trap.

A total of 65 minutes of trap hauling and setting was recorded. An additional 15 minutes of the lobster release cage was recorded.

**SCIENTIFIC
PERSONNEL:**

Robert Marshall, Chief Scientist, Joint Institute for Marine and
Atmospheric Research (JIMAR), University of Hawaii (UH)
Joseph O'Malley, Chief Scientist, JIMAR, UH
Julie Belliveau, Cooperating Scientist, Saltwater, Inc.
Richard Kupfer, Cooperating Scientist, Saltwater, Inc.
Jamie Marchetti, Cooperating Scientist, Saltwater, Inc.
Luke Szymanski, Cooperating Scientist, Saltwater, Inc.

Submitted by:

Joseph O'Malley
Chief Scientist

Approved by:

Samuel G. Pooley
Acting Director, Honolulu Laboratory

Attachment

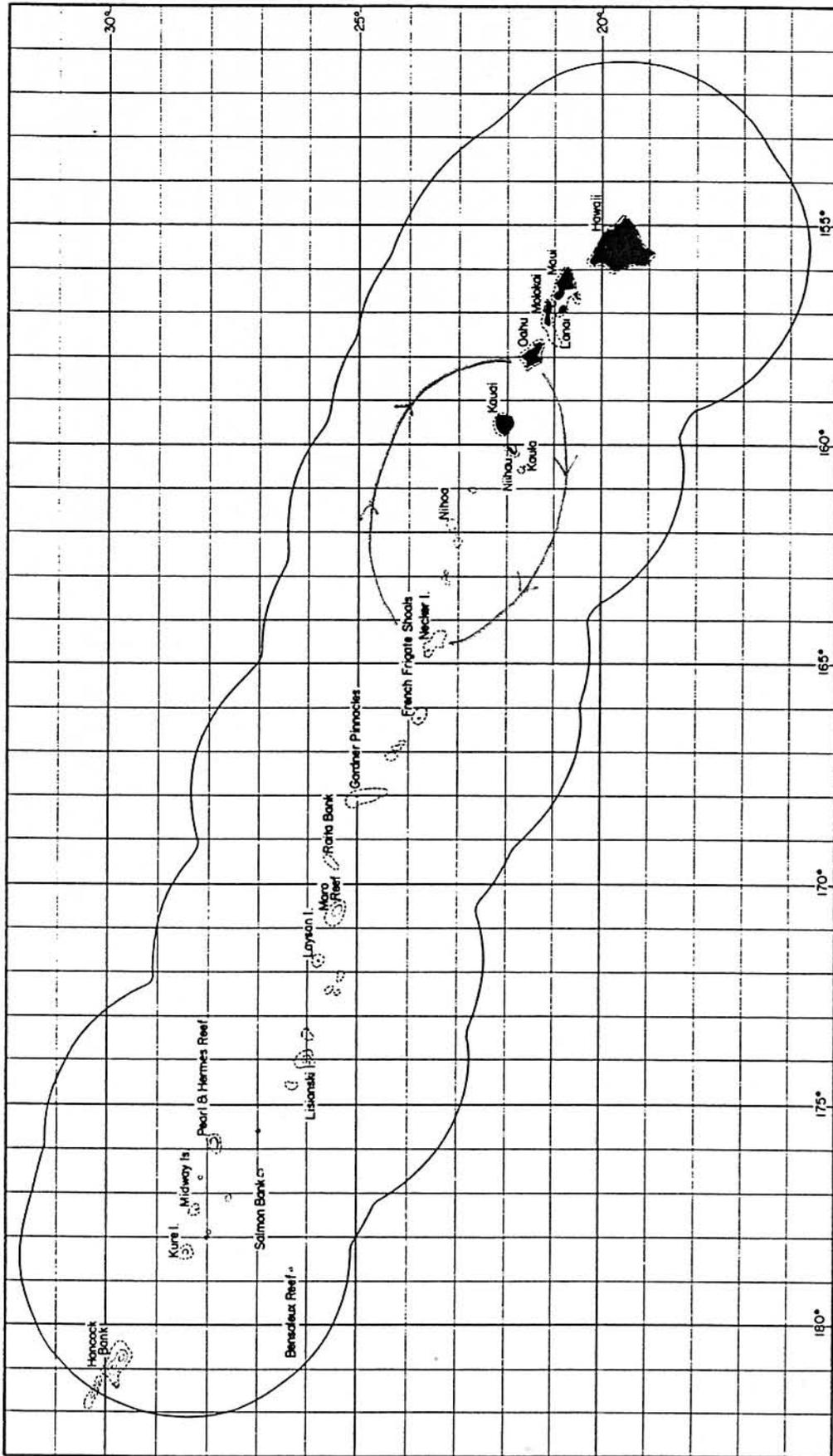


Figure 1.--Track of the Katy Mary and Marie M on NOAA Charter NC-02-02, September 8 to October 7, 2002.