



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE/NOAA FISHERIES

Pacific Islands Fisheries Science Center
2570 Dole St. • Honolulu, Hawaii 96822-2396
(808) 983-5300 • Fax: (808) 983-2902

CRUISE REPORT¹

VESSEL: F/V *Katy Mary*, Cruise NC-07-02

CRUISE PERIOD: 25 July 2007–23 August 2007

AREA OF OPERATION: Maro Reef and Laysan Island, NWHI (Fig. 1)

TYPE OF OPERATION: Personnel from the Joint Institute for Marine and Atmospheric Research (JIMAR), in support of a National Marine Fisheries Service, Pacific Islands Fisheries Science Center research project to study lobster population dynamics, conducted lobster trapping and tagging in the waters around Maro Reef and Laysan Island, NWHI from July 25 to August 23, 2007.

ITINERARY:

- 25 July Start of cruise. On board Kahikina Kaawaloa, Joseph O'Malley, and Anthony Santos. Departed Pier 35, Honolulu, Oahu at 1730; transited to Laysan Island.
- 30 July Arrived at Laysan Island. Commence lobster trapping and tagging operations.
- 31 July Continued lobster trapping and tagging operations.
- 05 August Hauled lobster traps and departed Laysan Island. Transited to Maro Reef.
- 06 August Arrived at Maro Reef. Commenced lobster trapping and tagging operations.
- 07 August Continued lobster trapping and tagging operations.
- 19 August Hauled lobster traps and departed Maro Reef; transited to Honolulu, Oahu.
- 23 August Arrived at Pier 35, Honolulu, Oahu at 1830. End of cruise.



¹ PIFSC Cruise Report CR-07-015
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MISSIONS AND RESULTS:

2.1 Missions of the cruise are:

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

A total of 285 trapping stations (90 at Laysan Island and 195 at Maro Reef) were fished with black plastic lobster traps. Each trapping station consisted of a string of 20 traps. Traps set between 0930 and 2200 hours were baited with mackerel and allowed to soak overnight. A total of 300 traps were set each night. In addition to collecting the tag number from previously tagged *P. marginatus* and *S. squammosus*, sex, carapace length, and reproductive information were collected from each lobster caught. All untagged *P. marginatus* and *S. squammosus* were tagged. All tagged lobsters were released.

- B. Collect data on abundance and species composition of trap-captured lobsters at Maro Reef and Laysan Island.

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

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- D. Collect 25 spiny and 25 slipper lobsters from each bank for nutritional analysis.

Twenty-five spiny and 25 slipper lobsters were collected from each bank for nutritional analysis.

- E. Collect lobster, shark, eel, and crab samples for researchers at Hawaii Institute of Marine Biology (HIMB).

Fifty spiny and slipper lobsters were collected each from Maro Reef and Laysan Island. Twenty whitetip reef shark samples were collected from Laysan Island and 9 were collected from Maro Reef. Fifty smooth box crab samples and 8 hermit crab samples were collected from Laysan Island. Eight eels were collected at Laysan Island and nine were collected from Maro Reef.

**SCIENTIFIC
PERSONNEL:**

Kahikina Kaawaloa, Cooperating Scientist, Marine Resources Assessment Group (MRAG), Inc.

Joseph O'Malley, Chief Scientist, Joint Institute for Marine and Atmospheric Research, University of Hawaii

Anthony Santos, Cooperating Scientist, MRAG, Inc.

(/s/ Joseph M. O'Malley)

Submitted by: _____
Joseph M. O'Malley
Chief Scientist

(/s/ Michael P. Seki) for
Approved by: _____
Samuel G. Pooley
Science Director
Pacific Islands Fisheries Science Center

Attachments

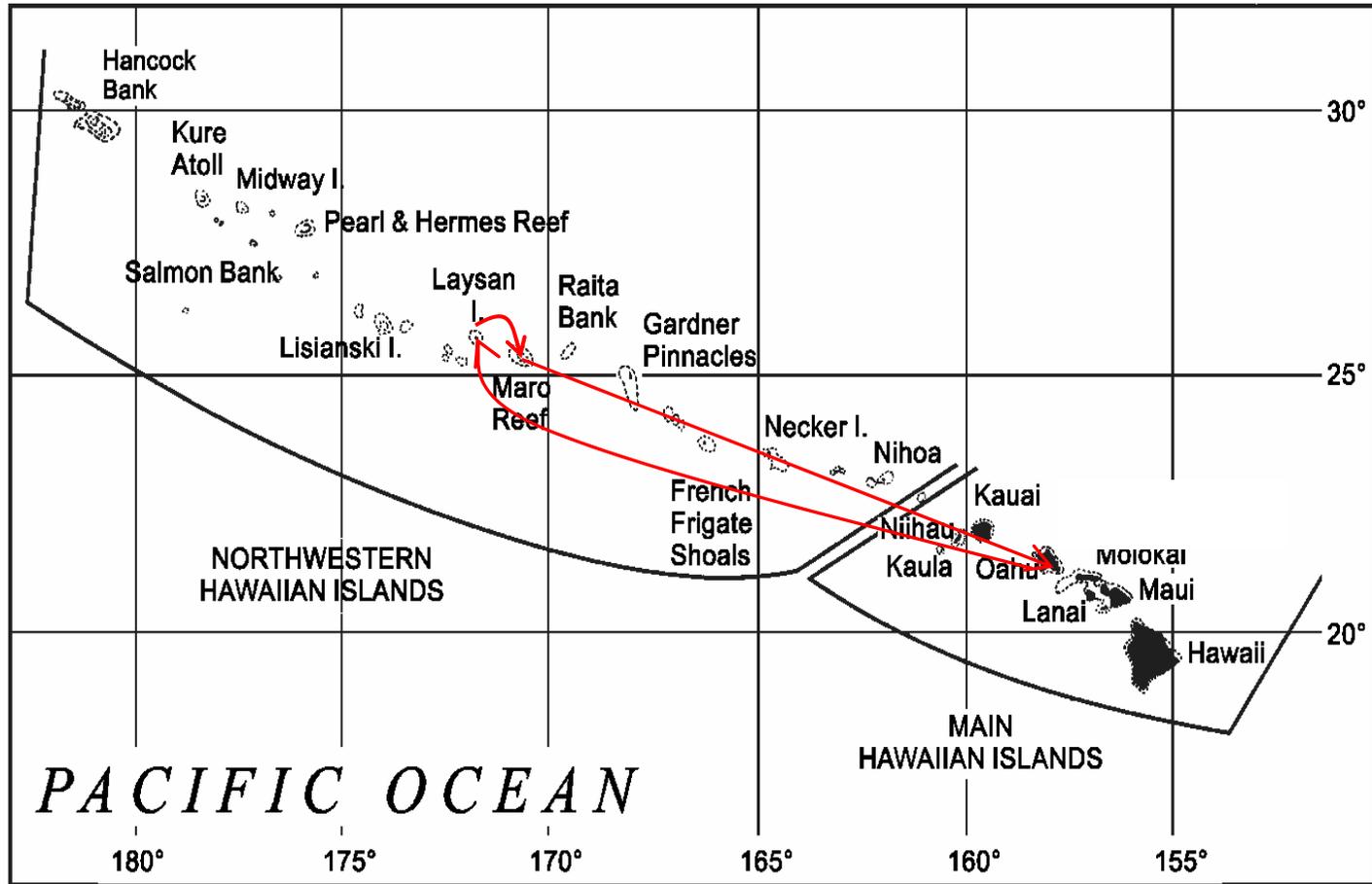


Figure 1.--Track of the *Katy Mary*, NOAA Charter Cruise NC-07-02, July 25 to August 23, 2007.