CRUISE REPORT[1]

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

CRUISE PERIOD: 16 July-15 August 2005

AREA OF OPERATION: Necker Island and Maro Reef (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 and Maro Reef.

***Katy Mary* ITINERARY:**

17 July Start of cruise. On board Kahikina Kaawaloa and Anthony Santos. Departed Pier 35, Honolulu, Oahu at 1000; transited to Necker Island.

19 July Arrived Necker Island. Picked up Joseph O'Malley from *Marie M*. Commenced lobster trapping and tagging operations.

20 Jul-12 Aug Continued lobster trapping and tagging operations.

13 August Hauled lobster traps and departed Necker Island; transited to Oahu.

15 August Arrived Pier 35, Honolulu, Oahu. End of cruise.

***Marie M* ITINERARY:**

16 July Start of cruise. On board Joseph O'Malley, Gregory Bary, John Wickstrom, and Joseph Wiggins. Departed Pier 35, Honolulu, Oahu at 1000; transited to Necker Island.

18 July Arrived Necker Island. Commenced lobster trapping and tagging operations.

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19 July Hauled lobster traps; transferred Joseph O'Malley to *Marie M*. Transited to Maro Reef.

21 July Arrived Maro Reef. Commenced lobster trapping and tagging operations.

22 Jul-10 Aug Continued lobster trapping and tagging operations.

11 August Hauled lobster traps and departed Maro Reef; transited to Oahu.

15 August Arrived Pier 35, Honolulu, Oahu. End of cruise.

MISSIONS AND RESULTS:

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 Necker Island lobster stock.

1. Collect data on the abundance and species composition of trap-captured lobster at Necker Island; tag and release *P. marginatus* and *S. squammosus*.

   A total of 375 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 were set each night. Approximately 5,404 *P. marginatus* and 1,477 *S. squammosus* were caught, tagged, and released at Necker Island in 7,500 trap hauls. Sex, carapace length, and reproductive information were collected from each lobster caught.

2. Collect data on the abundance and species composition of trap-captured lobster at Maro Reef; tag and release slipper lobster.

   A total of 315 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 were set each night. Approximately 6,414 *S. squammosus* and 2,719 *P. marginatus* were caught, tagged, and released at Maro Reef in 6,300 trap hauls. Sex, carapace length, and reproductive information were collected from each lobster caught.

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

   Sex, carapace length, and reproductive status were recorded for approximately 9,458 *P. marginatus*, 8,767 *S. squammosus,* and an unknown number of *Pararibacus antarcticus* and *Scyllarides haanii*.

4. Collect 25 *S. squammosus* and 25 *P. marginatus* for fecundity and sexual maturity analysis.

   A total of 25 *S. squammosus* and 25 *P. marginatus* were collected, labeled, and frozen for sexual maturity analysis.

B. Piggyback Projects

1. Collect 1-minute videos of the bottom substrate for NMFS/PIFSC/CRED.

   NMFS/PIFSC/CRED did not provide the information necessary for video recording.

2. Videotape release cage deployments.

   A total of five release cage deployments were recorded.

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

   Specimen kits were not provided by UH therefore no samples were collected.

SCIENTIFIC PERSONNEL:

Joseph Wiggins, Cooperating Scientist, Northwest Obs., Inc.
John Wickstrom, Cooperating Scientist, Northwest Obs., Inc.
Joseph O'Malley, Chief Scientist, Joint Institute for Marine and Atmospheric Research, University of Hawaii (UH)
Kahikina Kaawaloa, Cooperating Scientist, Northwest Obs., Inc.
Gregory Bary, Cooperating Scientist, JIMAR, UH
Anthony Bantos, Cooperating Scientist, Northwest Obs., Inc

(/s/Joseph O'Malley)
Submitted by: _____
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(/s/Michael Seki) for
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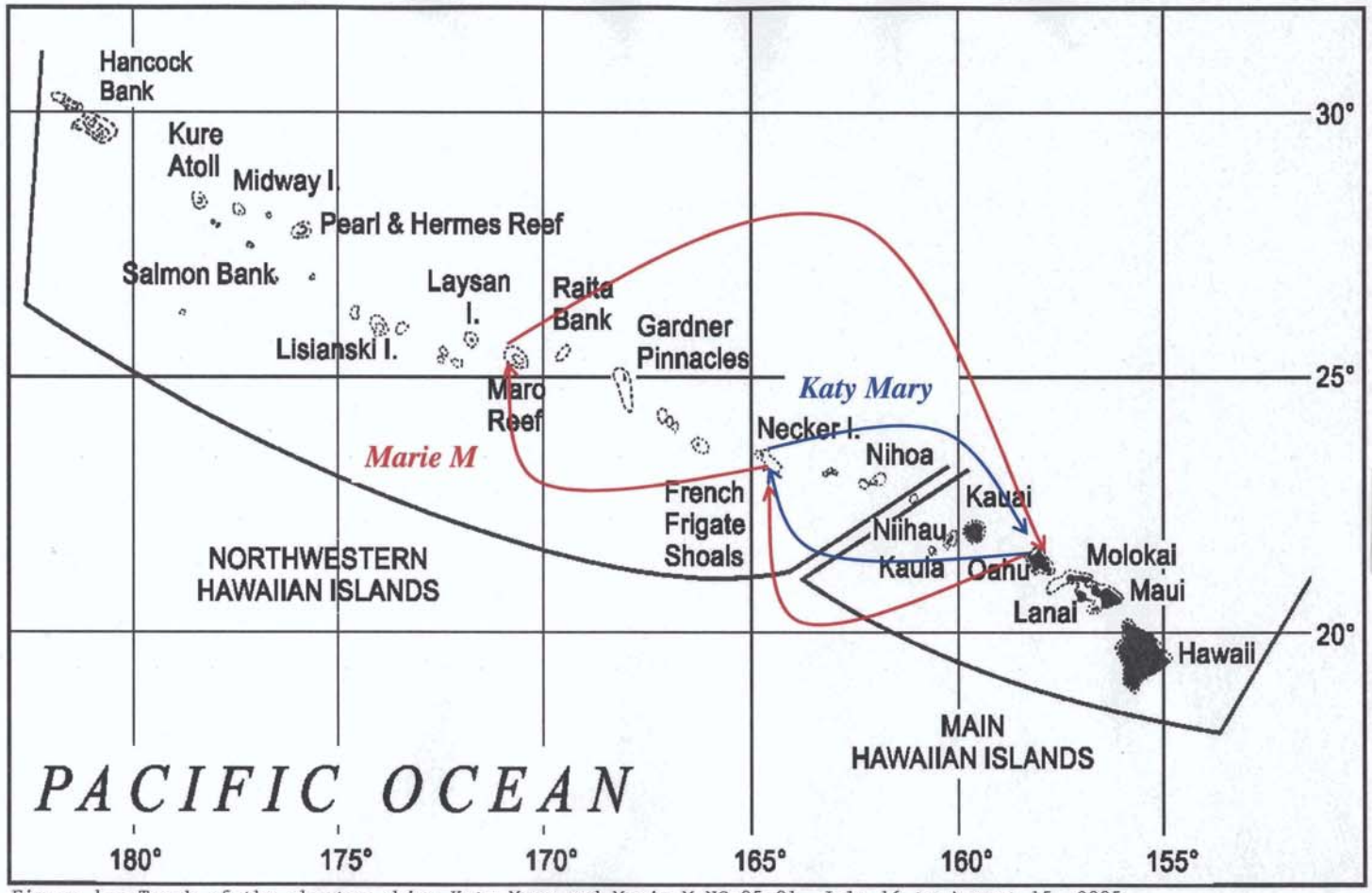

Figure 1.--Track of the charter ships Katy Mary and Marie M NC-05-01, July 16 to August 15, 2005.