HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT
DIVE: P4-256

MISSION STATUS

Location: Necker Ridge

Latitude: 21°37.9' N **Longitude: 167** ° 49.1'W

Mission Date: Oct. 11, 2011 **Duration: 7** hours 57 mins

Maximum Depth: 1748 m

Project Title: Biology of the Enigmatic Necker Ridge

Principal Investigator: Amy Baco-Taylor

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Observer 1: Amy Baco-Taylor
Address: above

Observer 2: Nicole Butler Morgan
Address: same

Pilot 1: Max Cremer

Pilot 2:

Scientific Data Acquired: Prepare an abstract outlining your objectives, techniques, findings, etc.

Objectives:
The goal of this series of dives is to compare the hard substrate fauna of Necker Ridge to the fauna of the Hawaiian Archipelago. To address this goal, the objectives on each dive are to complete quantitative video transects and to collect representative specimens of the most abundant species. The specimens will later be identified morphologically and using DNA analyses.

Observations, findings, etc:
The dive was conducted on the slope of the shallowest pinnacle near the southern end of Necker Ridge. The seafloor on the dive was largely hard substrate habitat, with mixed amounts of sediments, ranging from heavier sediment in cracks, to a light dusting on exposed rock surfaces.

The entire area covered on this dive was dominated by crinoids. They were abundant on hard substrates at the highest point of each cobble or boulder. There were 2-3 stalked species, a bright-red 12 arm and a bright red 10 arm, along with a more rare 5-arm yellow

one. The were 2-3 dominant unstalked species, a bright yellow/green one and a brownish yellow one that was harder to see. Many other species of crinoids were present in lower abundance than these. Generally abundance was about 4-6 inds per square meter. A larger, bright yellow crinoid was observed in high density on top of a single boulder and a large sponge, as well as occasionally on the very top of dead sponges.

Corals and sponges were also present but in comparatively low abundance. The main species were a pink *Bathypathes*-type antipatharian, a whip Antipatharian, a Christmas-tree type Antipatharian, *Metallogorgia melanotrichos*, unbranched isidids, unbranched primnoids – likely *Candidella gigantea*, and a small species of *Chrysogorgia*, possibly *stellata*. Sponges were more sparse and included a vase sponge wih tubes, and a Farrea-type sponge.

Species list:

See above.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:
None noted

Recommendations for corrective action or improvement:

None

In your opinion, did the mission essentially achieve its purpose? Compare actual work accomplished with the work that was expected to be accomplished.
Yes, we completed 3 transects and collected most of the dominant taxa. More transects would have been good, but we would not have been able to collect all the dominant taxa.

List specimens or samples collected on the mission.

3 15-min Video Transects

5 Unstalked crinoids
1 Stalked Crinoid
1 Antipatharian Whip
3 Pink Bathypathes-type Antipatharians
1 Christmas –tree like Antipatharian
1 Unbranched Primnoid – likely Candidella gigantean
4 Sponges
1 Metallogorgia
1 Chrysogorgia
2 Isidids
1 Antothela
1 Metallogorgia likely n sp
7 epifauna

DATA RELEASE

Data may be retained by the project leader for up to 2 years after the mission date with the following exception. NOAA may request to use photos for publication or publicity purposes at any time.

Fill in the appropriate statement below and sign this form.

I hereby release the data archived by HURL for public consumption following mission (project title) : Biology of the Enigmatic Necker Ridge

a. CTD data by Oct. 29, 2013 (date)

b. video and images by Oct. 29, 2013 (date)

c. other Oct. 29, 2013 (date)

d. I will give my written consent to individuals wishing to use these data prior to the above dates depending on the nature of the request(s).

Amy Baco-Taylor Principal Investigator