HAWAII UNDERSEA RESEARCH LAB
QUICK LOOK REPORT MISSION NO.__487_____

MISSION STATUS

Location: Slope, off Kailua Kona Coast

Mission Date: 12/06/01

Maximum Depth: 1210 m

Project Title: Ecological roles and faunal associates of abundant Hexactinellid sponges on the Hawaiian slope

Principal Investigator: Craig M. Young

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

Objectives:

1. Video-monitoring of invertebrate abundance on the slope and collection of bathyal sponges, echinoderms and tunicates in a given depth range (1200-600 m).

2. Collection of water samples using Niskin bottles to monitor picoplankton and dissolved silica concentrations at bathyal depths (750, 700, 650, 600, 550, 500, 450, 400, 350, 250, 200, 100,60,40, 20, 10, and 5 m).

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MISSION EVALUATION:

- Limitations, failures, or operational problems noted:

One bottle content (from 100 m) was lost, as the bottle leaks.

- Recommendations for corrective action or improvement:

No recommendations.

- In your opinion, did the mission essentially achieve its purpose? Compare actual work accomplished with the work that was expected to be accomplished.

Objectives were achieved according to predictions

- List specimens or samples collected on the mission.

Water sampling
Water samples collected at 762, 700 and 650 m contain "boundary-layer water", as they come from Niskin Bottles triggered when the submersible was resting on the bottom; the remaining samples were collected from the water column, relatively far from the bottom.

Faunal collection

- A total of 7 hexactinellids and 1 demosponge were collected at different depths:

Hexactinellids: 1177 m (only dead skeleton), 1123 m (*Farrea* sp2), 1123 m (*Euplectella* sp.), 1001 m (*Corbitella sp.*), 882 m (*Farrea sp.* with epibiontic hydroids), 825 and 725 (two individuals of *Farrea occa*).
Demosponges: 657 m (*Poecillastra schulzeii*).
Tissue of *Farrea* and *Euplectella* was fixed for TEM study.

- A total of 6 starfish, 3 ophiuroids, and 1 holothurian were collected at different depths:

Asteroids: *Asthenactis papyraceus*, a rare myxasterid starfish represented by fewer than 2 known specimens, *Gilbertaster anacanthus*-the 3rd specimen collected by Kona-C. Young dives adding to the 5 specimens known for this species worldwide, *Mediaster ornatus*, *Plinthaster* cf. *ceramoidea*, (2 small individuals), and cf. *Tarsastrocles verrilli*,
Ophiuroids: The ophiuroids included a sample individual of the numerically abundant red-colored ophiurid at 900-1000 m and 2 unidentified species commensal on hexactinellid sponges.
Holothurians: The single holothurian was cf. *Pannychia moseleyi*.

- A potentially new tunicate species, in the genus *Bathypera*, was also collected at .

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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

Ecological roles and faunal associates of abundant Hexactinellid sponges on the Hawaiian slope
_____ (project title)

held on _____ (date) in the following way:

a. CTD data by November 2003 (date)

b. voice transcripts, video, and still camera film by November 2003 (date)

c. other November 2003 (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).

_____ Principal Investigator