
**HAWAII UNDERSEA RESEARCH LAB
QUICK LOOK REPORT MISSION NO. 486**

MISSION STATUS

Location: off Kona, 19 37.12N, 156 04.50W

Mission Date: December 5, 2001

Maximum Depth: 1857m

Project Title: Ecological Role and Faunal Associates of Abundant Hexactinellid Sponges on the Hawaiian Slope

Principal Investigator: Craig Young

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Observer 1: Craig Young

Observer 2: Henry Reiswig

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Address: Victoria, B.C. (ret.)

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

This dive surveyed the deeper part of the slope for distributions of echinoderms and hexactinellid sponges. Because so many exciting new things were discovered, we spent virtually the entire dive between 1700 and 1800m. Numerous hexactinellid sponges were photographed and collected, most of which are either represented in museums by very few specimens or are species or genera new to science. Of particular note was a new deep-water species of *Sericolophus*, the same genus we are working on around 300m on the same slope. We also collected a carnivorous octacnemid ascidian, which is probably new to science. The dive was truly remarkable for the number of new things discovered and will make a major contribution to our understanding of the Hawaiian slope fauna.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

We attempted to collect water samples using the Niskin array on the top of the sub. Because a pin had been removed from the hydraulic-mechanical linkage that trips the bottles, none of the samples was collected.

Recommendations for corrective action or improvement:

Careful check, as always, of the collecting equipment prior to the dive. Normally, there are no such problems; this one seems to have been an unfortunate fluke.

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

We accomplished everything except the water samples and had an amazingly productive dive.

List specimens or samples collected on the mission.

3 Octacnemid ascidians, about 9 species of hexactinellid sponges, 2 stalked crinoids, 1 brisingid asteroid, several starfish.