

Six Month Progress Report for “Deep-Sea Precious Corals as a Habitat for Macroinvertebrates in Hawaii “ - #NA04OAR4600071

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Our cruise in October 2004 was very successful. We have completed our web page requirements: <http://oceanexplorer.noaa.gov/explorations/04coral/welcome.html>.

All of the coral specimens (or the appropriate pieces) collected on the cruise have been sent to museums for curation and taxonomy. Specimen donations have been made to the Smithsonian Institution and the California Academy of Sciences. Providing specimens to museums allows for additional outreach to the public and benefits the scientific community because it makes the specimens available for species descriptions, for museum displays and for comparisons to future collections.

Additional invertebrate identifications are being completed primarily by Tom Shirley and his students. Anemones specimens have been donated to Daphne Fautin, at the Natural History Museum in Kansas, who will provide identifications. Dr. Emilio Garcia, Professor Emeritus, ULL, is assisting with identification of selected gastropods.

Dr. Stephen Cairns has provided species identifications for all octocorals collected on the cruise, which include at least 3 new species. These identifications have been added to our species lists for the cruise. Dr. Dennis Opresko has begun identifying the Antipatharians we collected. He expects to add several of these specimens to a manuscript describing Pacific Antipatharians. Finally, Dr. Les Watling of Darling Marine Laboratory will be adding the Chrysogorgiids collected on this cruise to his studies revising the taxonomy of this family.

In collaboration with these coral taxonomists, as funding permits, A. Baco-Taylor will be contributing to the species descriptions and/or systematics of the Antipatharians and Octocorals by looking at the molecular systematics of these groups. DNA will be extracted from Antipatharians, Coralliids, Paragorgiids, several Primnoid genera, and the Chrysogorgiids collected on the cruise.

The cruise was several months into this 6-month period. So far our work on this project has focused on identifying specimens and sending specimens out to other specialists for identification. Once the identifications are completed, we will compile all of the data for statistical comparisons of: preference of invertebrate species for specific octocorals and comparison of epifauna between coral beds. In addition to descriptions of new species, we expect to prepare at least one manuscript describing and comparing the coral epifaunal communities and to present these results at the 2005 Deep-Sea Coral Conference.