

HAWAI'I UNDERSEA RESEARCH LABORATORY**QUICK LOOK REPORT
DIVE: ROV-453****MISSION STATUS****Location: Middle Bank, NWHI****Latitude:** 22 43.636 N**Longitude:** 161 08.372**Mission Date:** 12/03/09**Duration:** 2 hours 48 mins**Maximum Depth:** 668 m**Project Title:** Megafauna of Deep Seamounts and Ridges in the NWHI Monument Year2**Principal Investigator:** Christopher Kelley**Address:** HURL**Phone:** 808-956-7437**Observer 1:** Chris Kelley**Observer 2:** Jane Culp**Address:** HURL**Address:** HURL**Pilot 1:** Dan**Pilot 2:****Scientific Data Acquired: Prepare an abstract outlining your objectives, techniques, findings, etc.**

Objectives: The goal of this project is to census fish and invertebrate species in two under-surveyed but potentially high diversity habitat types: seamounts and submarine ridges, found inside the monument with the bathyal zone of 200-2000 m. The study site is a submarine ridge extending west of Middle Bank. This ROV dive will constitute the first assessment on this bank. The dive will be initiated at the bank plain on the western end of Middle Bank. This dive will focus on observations along a transect from the plain to the ledge of the ridge. Observers in the ROV control room will make initial identifications of fish and invertebrates during the dives. Standard video cameras will record video as well as the audio records from each of the observers. Following this dive, the seabeam multibeam sonar system will be used to complete as much of the mapping of the ridge and surrounding features as possible.

Observations, findings, etc

The ROV reached the bottom at 533m. The benthos was composed of sand interspersed with small rock outcroppings across the bank plain. As the ROV approached the ridge drop-off the terrain became more rugose, with more numerous rock and boulder patches. The rocky interface increased as the drop-off neared, eventually giving way to a steep basalt ledge. The top of the bank contained sparse patches of corals, echinoderms and fish with densities highest near the ledge. These data along with subsequent dives will provide the means to conduct an analysis of the animal communities on this feature at the meso-habitat scale.

Species list:

Cnidarians

Calligorgia gilberti
Paracalyptrophora sp.
Chrysogorgia sp.
Bebryce brunnea
Enallopsammia sp.
Paramuriceid sp.
Acanthogorgia sp.
Chrysogorgia stellata
Anthonuricea tenuispina
Chrysogorgia geniculata
Corallimorpharian
Paracis miyajimai
Ahtothela nuttingi
Corallium secundum
Narella lyrata
Siphonogorgia
Metallogorgia melanotrichos
Branched isidid (unknown)
Iridogorgia magnaspiralis
Lyrata isidid (unknown)

Sponges

Semperella schultzei

Crustaceans

Ophiuroid sp.
Galathaid sp.
Chirostylid sp.
Heterocarpus laevagatus
Astrochima sp.

Fishes

Malacocephalus boretzi
Aldrovandia sp.
Synagrops japonica
Ophidiid sp.
Morida sp.
Lucigadus sp.
Ventrifossa sp.
Physiculus sp.

Echinoderms

Novodinia pacifica
Hipasteria imperialis
Micropyga tuberculata

Other

Siphonophore sp.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

- 1) Lost communication with ROV at end of dive, circuit tripped and unable to recover

Recommendations for corrective action or improvement:

- 1)

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

Yes.

List specimens or samples collected on the mission.

None.

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 P4-228 (Megafauna of Deep Seamounts and Ridges in the NWHI Monument Year 2)

held on 12/03/09 (date) in the following way:

- a. CTD data by 12/03/09 (date)
- b. video and images by 12/03/09 (date)
- c. other 12/03/09 (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