

HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. RCV-161

MISSION STATUS

Location: Kahoolawe Island Reserve

Mission Date: 09-01-02

Maximum Depth: m

Project Title: RCV bottom survey of benthic resources around Kahoolawe

Principal Investigator: Rick Grigg

Address: Dept. of Oceanography
1000 Pope Rd.
University of Hawaii, Honolulu, Hi. 96822

Phone: 956-7186

Observer 1: D. Chave
Address: Hawaii Undersea Research Lab
1000 Pope Road
University of Hawaii

Observer 2: C. Kelly
Address: Hawaii Undersea Research Lab
1000 Pope Road
University of Hawaii

Observer 3: S. Whitcraft
Address: Kahoolawe Island Reserve Commission
811 Kolu St #201
Wailuku, Hawaii

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

The primary objective of the KIR surveys is to evaluate bottom resources around Kahoolawe. RCV-161 was located off the north central coast of Kahoolawe beginning at 20:34:37 N; 156:41:98W at a depth of 156 m and ending at 20:34:82N; 156:41.44 W at a depth of 155m. The transect began at 21:45 and ended at 23:00. The position of this transect was located in order to intersect an outcropping reef pinnacle with a summit depth of 115 m, hoping to sample the lower depth limit of *Antipathes dichotoma* and *A. grandis* both of which often serve as substratum for the invasive soft coral *Carijoa*. The transect crossed the pinnacle as planned reaching the summit and encountering significant areas of hard bottom substratum. Nevertheless, no colonies of *A. dichotoma*, *A. grandis* or *Carijoa* were encountered. Their absence may be a reflection of the depth, unsuitable ecology, or lack of zoogeographic connectivity with Maui. Otherwise, the pinnacle was a rich locale of biodiversity and many species were recorded (see species list below). A possible new species of gorgonian was observed on the summit of the pinnacle. About 20 large Holothurians were observed on this transect and one exceptionally large individual was seen in what appeared to be the process of excavating a large (~1 m diameter) crater. This may be the source of the pit cratering seen elsewhere on earlier transects. The pinnacle itself appears to be a drowned reef, its summit situated approximately at a depth coincident with sea-level 20,000 years ago.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

None

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

List specimens observed on the mission.

FISHES

myctophids 50+
Physiculus nigripinnis 1
Ariosoma marginatum 3
Apogon maculiferus 9
Pontinus macrocephalus 1
eel long 2
Myripristis chryseres 4
Lutjanus kasmira 2
Lactoria diaphana 1
Decapterus macarellus 3
Chromis struhsakeri 2
Pristipomoides sieboldii
Aluterus monocerus? 1

ECHINODERMS

Calliderma spectabilis 8
Astropecten productus 2
goniasterid long pointed legs 1
Pentaceraster cumingi 1
Stylocidaris calacantha 1
Actinocidaris thomasi 2
Leptodiadema purpureum 2
Stichopus horrens 1
Stichopus sp 2 (big, pointed bumps) 4
Actinopyga mauritiana 4
Actinopyga obesa 3
Bohadschia paradoxa 2

Laganum peroniana 1
Clypeaster sp 17

CRUSTACEANS

shrimp red 2

MOLLUSKS

pleurobranchid 2

CORALS

Cirrhopathes spiralis 100+
Antipathes brown 30+
Leptoseris sp 50+
cerianthid black short 20+
hydroid brown 30+
gorgonian maze-red 1
antipatharian brown 1

SPONGES

yellow 2
red round 30+
tan finger 20+

OTHER

Cristina radians (bryozoan) 1
Lyrocteis sp (ctenophore) 1
Halimeda (alga) small patches

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

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held on 09-01-02 in the following way:

- a. CTD data by 09-01-04
- b. video data by 09-01-04
- c. other _____ (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