

**HAWAI'I UNDERSEA RESEARCH LABORATORY**

**QUICK LOOK REPORT  
DIVE: PV-576**

**MISSION STATUS**

**Location:** South Side Penguin Bank, Third Finger

**Latitude:** 20° 55.9 N

**Longitude:** 157° 32.0 W

**Mission Date:** 9-18-04

**Duration:** 8 hours 00 mins

**Maximum Depth:** 102m

**Project Title:** Deep Seaweed Photosynthesis Research

**Principal Investigator:** Karla McDermid

**Address:** Marine Science Dept.  
University of Hawaii - Hilo  
200 W. Kawili St. Hilo, HI 96720

**Phone:** (808) 933-3906

**Observer 1:** John Runcie  
**Address:** University of Technology  
Sydney, Australia

**Observer 2:** none  
**Address:**

**Pilot 1:** Terry Kerby

**Pilot 2:** Steve Price

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

Objectives:

- Collect macroalgal specimens.
- Measure light attenuation with depth.
- Measure ambient light levels (photosynthetically active radiation PAR) at collection sites.
- Measure photosynthetic rate of seaweeds at various depths.
- Deploy PAM and data loggers for over night measurement of photosynthetic activity of seaweeds.

Observations, findings, etc:

The sub reached to the bottom at 76m at 20° 55.98 N / **157°** 32.129 W. Proceeded down slope to NW, and collected samples at 99m. PAM and Data loggers were deployed and left at 101m at 20° 56.131 N / **157°** 32.019 W. Moved up slope to E. Samples were collected at the depths of 95m, 94m, 91m, 90m, 86m, and 85m. Light measurements and photosynthetic rates of algae were taken at various sites and depth. The dive ended at 87m of 20° 56.099 N / **157°** 31.322 W.

Species list:

ALGAE

Halimeda  
 Red crusts  
 Red blades  
 Ulva  
 Anadyomene  
 Cladophora ?  
 Codium mammilosum  
 Halymenia  
 Dictyopteris  
 Ceramiaceae filamentous red  
 Delesseriaceae red blade  
 Cryptonemia  
 Dictyota  
 Ventricaria  
 Amansia  
 Struvea  
 Diatoms  
 Gelid  
 Spatoglossum  
 Distronium

CNIDARIA

Hydroids  
 Plate coral

SPONGES

Red  
 Yellow  
 Green  
 Orange

ECHINODERMS

FISH

BRYZOANS

**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 or samples collected on the mission.**

ALGAE (About 50 specimens)

Halimeda  
Red crusts  
Red blades  
Ulva  
Anadyomene  
Cladophora ?  
Codium mammilosum  
Halymenia  
Dictyopteris  
Ceramiaceae filamentous red  
Delesseriaceae red blade  
Cryptonemia  
Dictyota  
Ventricaria  
Amansia  
Struvea  
Diatoms  
Gelid  
Spatoglossum  
Distronium

## 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 (project title)

held on 9-18-04 (date) in the following way:

- a. CTD data by 9-18-06 (date)
- b. video and images by 9-18-06 (date)
- c. other Licor Light meter, PAM, Data logger 9-18-06 (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).

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Principal Investigator