

HAWAII UNDERSEA RESEARCH LABORATORY  
QUICK LOOK REPORT MISSION NO. P5-224

## MISSION STATUS

Location: Off Kailua-Kona  
Mission Date: September 28, 1992  
Maximum Depth: 1500 m  
Project Title: Reproductive Biology of Bathyal Echinoderms  
Project Leader: Dr. Craig M. Young  
Address: Harbor Branch Oceanographic Inst.  
5600 Old Dixie Hwy.  
Ft. Pierce, FL 34946  
  
Phone: (407) 465-2400 ext.303  
Observers: Dr. Paul Tyler and Dr. Craig M. Young  
Address: Dept. of Oceanography  
University of Southampton  
ENGLAND

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

Our objectives were: 1) collect Phrissocystis multispina, a sea-urchin with unusual dimorphic sperm, 2) to collect and videotape megabenthos for identification purposes, and 3) to determine reproductive status of barnacles, cnidarians and echinoderms. All objectives were achieved. The Phrissocystis specimens collected were the best ever recovered and the most intact in any museum in the world. Subsequent lab studies allowed us to refute a prior hypothesis about the role of biflagellate sperm and to prepare inseminated eggs for electron microscopy.

## MISSION EVALUATION:

Limitations, failures, or operational problems noted:

Specimens were difficult to collect with manipulator. A scoop of some sort is needed. User-supplied insulated box was difficult to open and shut. Hydraulic problems arose upon return to surface.

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.

Dive was successful in every way.

List specimens or samples collected on the mission.

- Phrissocystis (3)
- Peltaster (2)
- scalpellid barnacles (5)
- barnacle associates of urchins (>100)
- cnidarian samples (6)
- Porphyrocrinus sp. (2)
- euryaline ophiuroid (1)

## 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 Reproductive biology of echinoderms (project title) held on September 28, 1992 (date) in the following way:

- a. CTD data by September 30, 1992 (date)
- b. voice transcripts, video, and still camera film by September 28, 1994 (date)
- 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).

---

Project Leader