

**NOAA OCEAN EXPLORATION  
RESEARCH EXPEDITION**

**FLORIDA COAST DEEP CORALS 2005**

Unless otherwise indicated, all video clips are courtesy of Brooke et al., NOAA-OE, HBOI

“Logs” referenced below are available at [www.oceanexplorer.noaa.gov](http://www.oceanexplorer.noaa.gov)  
Select “Florida Coast Deep Corals” exploration. Logs are posted on the right side of this page.

**Dive schedule for Florida Deep Sea Corals Cruise, November 2005**

Nov 8 <sup>th</sup>	Day 1	Cape Canaveral Bioherms
Nov 9 <sup>th</sup>	Day 2	St Augustine Lithoherms
Nov 10 <sup>th</sup>	Day 3	Cape Canaveral Bioherms
Nov 11 <sup>th</sup>	Day 4	Cape Canaveral Bioherms
Nov 12 <sup>th</sup>	Day 5	Pipeline sites off Ft. Lauderdale
Nov 13 <sup>th</sup>	Day 6	North Miami Terrace
Nov 14 <sup>th</sup>	Day 7	South Miami Terrace
Nov 15 <sup>th</sup>	Day 8	Pourtales Terrace Mounds
Nov 16 <sup>th</sup>	Day 9	Pourtales Terrace Mounds
Nov 17 <sup>th</sup>	Day 10	South Miami Terrace
Nov 18 <sup>th</sup>	Day 11	North Miami Terrace
Nov 19 <sup>th</sup>	Day 12	Cape Canaveral Bioherms
Nov 20 <sup>th</sup>	Day 13	Cape Canaveral Bioherms

**SCRIPT FOR CANAVERAL CORAL COMMUNITY VIDEO CLIP, NOV. 8**

**LOG:**

These images are from video footage taken by a camera mounted on the Johnson-Sea-Link submersible. Shown are: Bamboo coral (*Keratoisis sp.*), pencil urchin (*Stylocidaris sp.*), *Anthomastus sp.* octocoral (the red coral), bamboo corals, encrusting colonial organisms growing on dead coral, and a variety of glass sponges (Hexactinellid), including one sponge with several small brittle stars (Ophiuroids). Note the codling fish (family Moridae) and the octocoral tentacles being “blown” in the current, which was running at about  $\frac{3}{4}$  of a knot.

**SCRIPT FOR “BURIED BOMB” VIDEO CLIP, NOV. 9 LOG:**

Scientist John Reed: “We have something that’s about a foot tall stuck in the bottom. It’s blue, it has 4 fins on the tail of it, and sort of.....I don’t know what it is.”

Submersible Pilot Tim Askew, Jr.: “The chart wasn’t lying about the ordnance!”

John Reed: “Let’s get away from that.”

Some of the ship's and science crew believe this to be a "dummy bomb." Others from our mission are not sure what it is.

**CAPTION FOR "MYSTERY CREATURE & FEATHER STAR" VIDEO CLIP, NOV. 10 LOG:**

The "fuzzy trees" mystery creatures living on recently-dead *Lophelia* coral at about 2,500 feet in depth off Canaveral Pinnacle #151. They are being "blown" by a current that was running at about  $\frac{3}{4}$  of a knot. The second part of this video second part of this video clip shows a feather star, also known as an unstalked crinoid, on *Lophelia* coral.

**CAPTIONS FOR 3 VIDEOS, NOV. 11 LOG:**

**Mola mola video:**

*Johnson-Sea-Link* Submersible Pilot Don Liberatore: "Wow, look at this, an ocean sunfish. Oh my God, cool! We got a *Mola mola* here in front of us."

This ocean sunfish was about 5' long and probably weighed 300-500 pounds. The white patches are where its skin has been taken off by unknown means, revealing the white cartilage beneath.

**Crab and Shark video:**

Scientist Grant Gilmore filmed this interaction between a 10-12" golden crab and an 8" roughtail catshark. He commented that this scene reminded him of the "War of the Worlds."

**Deep Sea Fish – Cocoa Pinnacle video:**

A rattail, codling, and roughtail catsharks. The two green laser measuring points are 25 cm. apart.

**SCRIPT FOR BIOLUMINESCING BAMBOO CORAL VIDEO, NOV. 12 LOG:**

Scientist Valerie Paul: "This you have to give it some damage. I'm rubbing it with my thumbnail to get it do that, but it can do it over and over again."

**CAPTION FOR AMPHIPOD IN SPONGE DISCOVERY VIDEO, NOV. 13 LOG:**

Dr. Jim Thomas shows pieces of the just-collected Hexactinellid sponge to Dr. Jerry Harasewych, who photographs it. Dr. Thomas discovered a tiny amphipod inside the sponge.

**Audio portion:**

Dr. Valerie Paul: "Oh, I see, they live in there, like a ship in a bottle."

Dr. Jim Thomas: “Yeah, right here.”

Dr. Paul: “Oh, and these lock in. Cool!”

Dr. Thomas: “So what I’m trying to do is separate this chamber out and then go over and take a picture.”

**CAPTION FOR TEACHERS AT SEA NOV. 14 LOG VIDEO:**

Amidst the “hub bub” of a dozen members of the science crew (background audio):

Teachers Tracy Griffin and Elisabeth Jacobi discuss with Chief Scientist Dr. Sandra Brooke what was seen during Elisabeth’s submersible dive.

Elisabeth studies a small specimen of a recently collected coral.

Elisabeth and Dr. Charles Messing looking for brittle seastars in a coral specimen.

Tracy and Elisabeth labeling specimens with Dr. Brooke.

**CAPTION FOR DEEP SEA SUBMERSIBLE DIVE NOV. 16 LOG VIDEO**

Submersible pilot Phil Santos and scientist Dr. Jerry Harasewych during the launch and first 207 feet of deployment of the *Johnson-Sea-Link* sub. Note the “depth” reading in the top left corner of the data overlay.

**CAPTIONS FOR NOV. 18 LOG VIDEOS:**

**Deep Predators of Miami Terrace Video:**

A conger eel poking its head out in front of a golden soft coral. Up to a dozen conger eels were seen during this dive.

A red alfonsino fish and a wreckfish.

A small school of barrelfish and a slightly larger wreckfish (on the left) swim upslope onto the crest of the feature to investigate the submersible.

An impressively-sized wreckfish. The size of its belly led to speculation that it is a female full of eggs.

Two different sand tiger sharks. The first, which was the larger of the 2, had apparently sustained scrapes on its nose from unknown causes.

**Mackerel School of Miami Terrace Video:**

A large school of mackerel which appeared to follow the submersible for almost half an hour around the deep coral reef.

## **CAPTIONS FOR NOV. 19 LOG VIDEOS:**

### **Slit-Shell Snail Search:**

Submersible Pilot Don Liberatore: “It’s on a little section of almost vertical wall. Again, there are a few sponges around..... This one is sitting on top of a sponge. I don’t know if it’s eating it or not.”

The last segment depicts collection of one of the snails with the submersible’s suction tube and placing the snail in one of the collection buckets which are kept in front of the submersible’s sphere.

### **Milking Slit-Shell Snails: *video courtesy of Joe Bruncsak/Brooke et al., NOAA-OE, HBOI***

Dr. Jerry Harasewych, Curator of Marine Mollusca at the Smithsonian National Museum of Natural History, uses a pipette to “milk,” or extract a thick white liquid, from the slit-shell snail..... (genus species)

Dr. Melany Puglisi, of the Smithsonian Marine Station at Ft. Pierce, collects the fluid in small jars which she and others at the Marine Station will analyze.

A **dozen** specimens of slit-shell snails collected in the day’s submersible dive await milking.

### **Chemical Analysis Plans for Slit-Shell “Milk”: *video courtesy of Joe Bruncsak/Brooke et al., NOAA-OE, HBOI***

Marine chemical ecology research technician Raphael Ritson-Williams of Ft. Pierce, Florida:

“We’re going to take this (the slit-shell snail “milk”) back to our lab and do chemical analysis on it to look for different types of compounds that are in it, do extractions, and then hopefully isolate some compounds. We hope to get a chance to come back and test them (the isolated compounds) against crabs and other things to see if they don’t taste good so crabs wouldn’t eat them. Or they might be pheromones to find other snails with, so you set a little trap out and see if other snails aggregate around it and test it like that. But right now we’re just going to look at the chemistry (of the “milk”).”

## **CAPTION FOR NOV. 20 LOG, MIAMI TERRACE DEEP CORAL DIVERSITY VIDEO:**

The beauty and diversity of the deep-sea coral reefs of Miami Terrace:

*Lophelia pertusa* corals were particularly abundant along the top edge of the terrace escarpment's west ridge.

Just below the ridge edge, *Lophelia* coral grew lushly, hanging down from the underside of the ledge. Growing in this fashion may allow the corals to take advantage of food-laden currents, as well as to avoid burial by sediments drifting down from above.

The top of the terrace was covered with lacy octocorals and white sponges, as well as galatheid crabs exhibiting their classic "claws up" posture.