THE NEWS ROOM

THE BUREAU OF OCEAN ENERGY MANAGEMENT, REGULATION AND ENFORCEMENT

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Federal and Academic Scientists Return from Deep-Sea Research Cruise in Gulf of Mexico

Scientists Observe Damage to Deep-sea Corals

Government and academic scientists on a multi-week expedition to explore deep-sea coral habitats in the Gulf of Mexico have observed corals and associated communities of marine life that show evidence of recent damage. Today marks the conclusion of this year's cruise, the fourth of a multiyear collaboration sponsored by NOAA's Office of Ocean Exploration and Research and the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE). The expedition is chronicled at **http://oceanexplorer.noaa.gov**.

Operating from the NOAA Ship Ronald H. Brown and using a variety of tools including the National Deep Submergence Facility's Jason II remotely-operated vehicle (ROV), researchers were working at a site 1,400 meters deep (roughly 4,600 feet) and approximately seven miles southwest of the Macondo wellhead when they visually observed dead and dying corals with sloughing tissue and discoloration.

Charles Fisher, Ph.D., professor of biology at Penn State University and chief scientist on the expedition, described much of the soft coral observed in an area measuring about 15 to 40 meters as covered by what appeared to be a brown substance. Ninety percent of 40 large corals were heavily affected and showed dead and dying parts and discoloration. Another site 400 meters away had a colony of stony coral similarly affected and partially covered with a similar brown substance.

The 2010 expedition revisited many sites from missions in previous years and documented that in nearly all cases, there was no observed change. Until laboratory analyses are conducted, scientists cannot be certain what caused the impacts. Sediment and coral samples were collected with the ROV and were brought to the surface for analyses. Further testing will also determine if the substance is oil, and if so, whether it is consistent with the release from the Deepwater Horizon oil spill.

"These observations capture our concern for impacts to marine life in places in the Gulf that are not easily seen," said Jane Lubchenco, Ph.D., under secretary for commerce for oceans and atmosphere and NOAA administrator. "Continued, ongoing research and monitoring involving academic and government scientists are essential for comprehensive understanding of impacts to the Gulf."

"Through the continued work of ongoing research projects such as this, BOEMRE scientists, other government scientists, academia and the public can better understand the potential effects of offshore energy exploration and development, including the possible effects of the Deepwater Horizon blowout and spill," said BOEMRE director Michael R. Bromwich. "Today's preliminary observations highlight the need for continued scientific research in the Gulf of Mexico.

"While this mission was not designed to be focused on oil spill research, the timing and location provided an opportunity to observe any impacts to our research areas," said Fisher.

The 2010 expedition was supported by a number of partners including NOAA, BOEMRE, Penn State University, Woods Hole Oceanographic Institution, Temple University, Louisiana State University, Florida State University, the U.S. Geological Survey, the PAST Foundation, T.D.I. Brooks International and C&C Technologies.

Celebrating 10 years of ocean exploration, NOAA's Office of Ocean Exploration and Research uses state-of-the-art technologies to explore the Earth's largely unknown ocean in all its dimensions for the purpose of discovery and the advancement of knowledge. The NOAA fleet of ships and aircraft is operated, managed and maintained by the NOAA Office of Marine and Aviation Operations, which includes commissioned officers of the NOAA Corps and civilian wage mariners.

BOEMRE is the federal agency within the Department of Interior responsible for overseeing the safe and environmentally responsible development of energy and mineral resources on the Outer Continental Shelf.

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On the Web:

- **NOAA's Office of Ocean Exploration and Research: http://oceanexplorer.noaa.gov**.
- **Lophelia II 2010: Oil Seeps and Deep Reefs Mission:**

http://oceanexplorer.noaa.gov/explorations/10lophelia/welcome.html.

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