Technical Announcement

U. S. Department of the Interior Bureau of Ocean Energy Management Gulf of Mexico OCS Region

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Exploration and Research of Northern Gulf of Mexico Deepwater Natural and Artificial Hard Bottom Habitats, with Emphasis on Coral Communities:

Reefs, Rigs, and Wrecks-"Lophelia II", Interim Report

OCS Study BOEM 2012-106

The Bureau of Ocean Energy Management (BOEM), Gulf of Mexico OCS Region, announces the availability of a new study report, *Exploration and Research of Northern Gulf of Mexico Deepwater Natural and Artificial Hard Bottom Habitats, with Emphasis on Coral Communities: Reefs, Rigs, and Wrecks-"Lophelia II", Interim Report.* This interim report presents results from the first three research cruises of the study through 2009.

In the Gulf of Mexico, deep or cold-water corals are commonly found on relatively rare naturally occurring carbonate hard bottom features, but have also been observed on anthropogenic structures, ship wrecks and energy platforms in particular. A primary goal of this study is to obtain a robust predictive capability for the occurrence of rich coral communities in the deep Gulf of Mexico. This study focuses on the exploration and characterization of these communities and examination of their potential connection to other coral populations and surrounding deep-water communities. In addition to coral collections representing the extension of distribution ranges as well as new species and a new genus of stoloniferous coral, the first pH and total alkalinity data from the deep Gulf of Mexico was collected. This data will also guide research into the potential impact of ocean acidification on cold-water corals.

Seven historic shipwreck sites were investigated during this study. These wrecks included metal-sheathed wooden sailing vessels, two World War II U-boat casualties and the German U-boat, *U-166*. Three of these had never been surveyed by a remotely operated vehicle before. One of these wrecks represents the deepest known shipwreck site investigated in the Gulf of Mexico at 7,450 feet. Assessments of the data are providing details regarding the chronology of the wrecks, their construction, and site formation processes.

This report is available on CD from the Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, for \$15.00, and free of charge as a pdf file downloaded from the BOEM Website. Copies can also be viewed at selected Federal Depository Libraries. The addresses are listed below.

To order a CD, use the Gulf of Mexico OCS Region contact information below and reference OCS Study BOEM 2012-106. To download a pdf copy, use the <u>Environmental Studies Program Information System</u> (ESPIS) and search on the study report number. In the near future, you will also be able to get this report also from the National Technical Information Service.

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