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

Technical Announcement

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Deep-Water Coral Distribution and Abundance on Active Offshore Oil and Gas Platforms and Decommissioned Rigs-to-Reefs Platforms

OCS Study BOEM 2013-217

The Bureau of Ocean Energy Management (BOEM), Gulf of Mexico OCS Region, announces the availability of a new study report, *Deep-Water Coral Distribution and Abundance on Active Offshore Oil and Gas Platforms and Decommissioned Rigs-to-Reefs Platforms.*

This report documents the effectiveness of Rigs-to-Reef structures in promoting coral community development on the toppled platforms in deep water using ROV reconnaissance (max. depth ~110 m). Coral community development was compared between five toppled platforms and two active, standing production platforms. The corals found on the platforms were *Madracis decactis*, *Tubastraea coccinea*, *Oculina diffusa*, and *Phyllangia americana*. *M. decactis* and *T. coccinea* densities were significantly higher on toppled Rigs-to-Reefs structures, while *P. americana* was more abundant on standing platforms than on the toppled ones. The densities of *Oculina diffusa* were found to be equivalent on both types of structures, and there was no significant difference in total coral density when comparing standing and toppled platforms. As a group, corals were distributed more deeply on standing platforms than on toppled Rigs-to-Reefs structures. This was particularly true in *O. diffusa*, *P. americana*, and *Tubastraea coccinea.* There was no significant difference in depth distributions of *Madracis decactis* between the two types of structures. All corals of this species were found to occur in depths of $\leq$50 m. The reduction in density of many corals on the Rigs-to-Reefs structures in deeper water may be due to physical disturbance upon removal of the platform and additional disturbance during deployment of the structures at their new site. Toppling did not appear to enhance development of hermatypic coral populations, increase coral abundances in general, or create a three-dimensional reef-like habitat which could promote demersal fish community development.

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 2013-217. To download a pdf copy, use the Environmental Studies Program

Information System and search using the study report number:
http://www.data.boem.gov/homepg/data_center/other/espis/espismaster.asp?appid=1

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