



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

Technical Announcement

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Contact: Caryl Fagot
(504) 736-2590

Investigations of Chemosynthetic Communities on the Lower Continental Slope of the Gulf of Mexico

[OCS Study BOEM 2014-0650](#)

The Bureau of Ocean Energy Management (BOEM), Gulf of Mexico OCS Region, announces the availability of a new study report, *Investigations of Chemosynthetic Communities on the Lower Continental Slope of the Gulf of Mexico*.

This final report presents the results from a five-year field study sponsored by the National Oceanographic Partnership Program and funded by the Bureau of Ocean Energy Management and National Oceanic and Atmospheric Administration's Office of Ocean Exploration and Research (NOAA OER) with objectives to discover and characterize the sea floor communities that live in association with hydrocarbon seepage and on hard ground in the deep Gulf of Mexico below a depth of 1,000 m. Additional partnering with the U.S. Geological Survey further enhanced the productivity and scope of the research. The study emphasized both chemosynthetic communities and deep-water or "cold-water" coral communities. A total of 24 sites were characterized and four sites were studied extensively including the geology, geochemistry, microbiology and biology of the sites using facilities including the manned submersible *Alvin* and remotely operated vehicle *Jason II* provided by NOAA OER. Longer-term studies were established at these sites to determine growth rates of some of the animals, monitor for visitation by mobile deep-sea fauna, and follow the fine scale changes in seepage patterns and community composition. Photographic mosaics of several new animal communities discovered were created and markers deployed so these can be revisited in the future. A total of 107 new species including 24 undescribed species that do not fit into any described genera have been confirmed; these include 18 new genera and 77 new species of copepod, one new genera and 17 new species of ostracod, four new species of tanaidacea, three new species of halacarids, and more than five new genera of nematodes.

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 2014-0650 (the accompanying Appendix is report #BOEM 2014-0651). To download a pdf copy, use the [Environmental Studies Program Information System](#) (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.

U.S. Department of the Interior
Bureau of Ocean Energy Management
Gulf of Mexico OCS Region
Public Information Office (MS 5034)
1201 Elmwood Park Blvd.
New Orleans, Louisiana 70123-2394
Phone: (504) 736-2519, 1-800-200-GULF
Fax: (504) 736-2620

U.S. Department of Commerce
National Technical Information Service
5301 Shawnee Rd.
Springfield, Virginia 22312
Phone: (703) 605-6000, 1-800-553-6847
Fax: (703) 605-6900
Website: <http://www.ntis.gov/>

BOEM Main Website: <http://www.boem.gov/>