



U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region

September 2001

How Does Produced Water Cause a Reduction in the Genetic Diversity of Harpacticoid Copepods?: Final Report

OCS Study MMS 2001-078

The Minerals Management Service (MMS), Gulf of Mexico OCS Region, announces the availability of a new study report, *How Does Produced Water Cause a Reduction in the Genetic Diversity of Harpacticoid Copepods?: Final Report*.

The study examines the reduction in genetic diversity in meiobenthic copepods found in close proximity to production platforms. The 16S rRNA gene of the mitochondrial genome in several meiobenthic harpacticoid copepod species was analyzed by polymerase chain reaction (PCR) and restriction fragment length polymorphism (RFLP) analysis. Such a loss of genetic diversity may have several causes. A reduction in genetic diversity may be the direct result of exposure to contamination via the process of genotypic selection. Alternatively, it is possible that some of the mitochondrial DNA genotypes found represent interspecific variation in the form of cryptic species rather than within-species variants. If cryptic species with differing levels of tolerance to sediment contaminants occur among harpacticoids, the apparent reduction in genetic diversity near platforms could represent a loss of species diversity rather than genotype selection.

For more information about this study or the Environmental Studies Program in general, contact the Environmental Sciences Section (MS 5430), 1201 Elmwood Park Boulevard, New Orleans, Louisiana 70123-2394, telephone (504) 736-2752.

You can obtain copies of the report from the Minerals Management Service, Gulf of Mexico OCS Region, at a charge of \$8.00 by referencing OCS Study MMS 2001-078. You will be able to obtain this report also from the National Technical Information Service in the near future. Here are the addresses. You may also inspect copies at selected Federal Depository Libraries.

Minerals Management Service
Gulf of Mexico OCS Region
Public Information Office (MS 5034)
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394
Telephone requests may be placed at
(504) 736-2519 or 1-800-200-GULF
or FAX: (504) 736-2620

U.S. Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22161
(703) 487-4650 or FAX: (703) 321-8547
Rush Orders: 1-800-336-4700

MMS is the federal agency in the U.S. Department of the Interior that manages the nation's oil, natural gas and other mineral resources on the outer continental shelf in federal offshore waters. The agency also collects, accounts for and [disburses mineral revenues](#) from federal and Indian leases. These disbursements totaled nearly \$8 billion last year and more than \$110 billion since the agency was created in 1982. Annually, nearly \$1 billion from those revenues go into the Land and Water Conservation Fund for the acquisition and development of state and federal park and recreation lands.

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MMS's Website Address: <http://www.mms.gov>

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