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

Technical Announcement

Contact: Barney Congdon (504) 736-2595

> Caryl Fagot (504) 736-2590

Debra Winbush (504) 736-2597

Importance of Zooplankton in the Diets of Blue Runner (*Caranx crysos*) Near Offshore Petroleum Platforms in the Northern Gulf of Mexico

OCS Study MMS 2003-029

The Minerals Management Service (MMS), Gulf of Mexico OCS Region, announces the availability of a new study report, Importance of Zooplankton in the Diets of Blue Runner (Caranx crysos) Near Offshore Petroleum Platforms in the Northern Gulf of Mexico.

This report presents results of a study that looked at feeding habits of the blue runner (*Caranx crysos*) both near and far away from oil and gas platforms in the Gulf of Mexico. Blue runners are common around offshore platforms and are important in the diets of larger predatory fish. Adult blue runners were previously considered to be fish-eaters, but this study has shown that zooplankton is a major component of their diets. Both feeding periodicity and size selectivity were studied. Feeding periodicity results suggest that blue runners around platforms were capable of feeding throughout the night at the same intensity as during the day. Size selectivity indicated that larger prey such as fish were consumed during the night and smaller decapod crustaceans were consumed during the day. An acoustic Doppler current profiler (ADCP) was used to survey the water column around the study platform for plankton. These surveys demonstrated the utility of an ADCP to examine small-scale patterns in sound scattering layers in surface waters around platforms; however, preliminary analysis did not establish that elevated (or reduced) levels of scattering existed near platforms. The study results did clearly show that blue runner near platforms feed after dark, presumably resulting from the light field generated by the structure, resulting in both enhanced zooplankton accumulation and visualization of prey.

This report is available only in compact disc format. The discs are available from the Minerals Management Service, Gulf of Mexico OCS Region, at a charge of \$15.00 by referencing OCS Study MMS 2003-029. 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 American Indian leases. These revenues totaled over \$6 billion in 2002 and nearly \$127 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.

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

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