Technical Announcement



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

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Sperm Whale Seismic Study in the Gulf of Mexico Annual Report: Years 3 and 4

OCS Study MMS 2006-067

The Minerals Management Service (MMS), Gulf of Mexico OCS Region, announces the availability of a new study report, *Sperm Whale Seismic Study in the Gulf of Mexico*, *Annual Report: Years 3 and 4*.

Sperm whales (*Physeter macrocephalus*) are an endangered species that inhabits the Gulf of Mexico. The MMS is involved in a multi-institutional, interdisciplinary study to (1) establish the normal behavior of sperm whales in the northern Gulf, (2) characterize sperm whale habitat use in the northern Gulf, and (3) determine possible changes in the behavior of sperm whales when subjected to manmade noise, particularly noise from seismic airgun arrays used for offshore petroleum exploration and geological monitoring.

This is the third annual report of the Sperm Whale Seismic Study (SWSS) and focuses only on information collected from years 2004 and 2005. Each year consisted of a tagging cruise and mesoscale population cruise.

Data collected on the tagging cruises during this two-year period include, but are not limited to

- (a) 20 satellite tags successfully attached;
- (b) 26 sperm whale biopsies obtained;
- (c) passive acoustic monitoring data, suitable for 3-D sperm whale tracking analyses;
- (d) acoustic recordings obtained of sperm whale vocalizations;
- (e) fishery echo sounder data on the deep scattering layer;
- (f) real-time physical oceanographic data, remote sensing of ocean color and sea surface height;
- (g) Forty-three fluke photos taken for photo identification; and
- (h) Incidental sightings of other cetaceans and sea turtles.

The purpose of the mesoscale population cruises was to expand the baseline of information on population size, habitat use, social organization, movements and behavior, and to determine natural variability and potential responses to anthropogenic activities; determine distribution and

movement in relation to natural changes in environmental conditions; investigate population structure and calving rate; and investigate residency of known individuals in the Gulf of Mexico.

This report is available only in compact disc format from the Minerals Management Service, Gulf of Mexico OCS Region, at a charge of \$15.00, by referencing OCS Study MMS 2006-067. The report may be downloaded from the MMS website through the Environmental Studies <a href="Program Information System (ESPIS). 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.

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Rush Orders: 1-800-336-4700

MMS Main Website: www.mms.gov
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