



# MARINE MAMMAL COMMISSION

14 October 2009

Mr. Joe Christopher  
Regional Supervisor  
Office of Leasing and Environment (MS 5410)  
Gulf of Mexico OCS Region  
Minerals Management Service  
1201 Elmwood Park Blvd.  
New Orleans LA 70123-2394

RE: Comments on the Lease Sale 215 EA

Dear Mr. Christopher:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the Minerals Management Service's 9 September 2009 notice of intent to prepare an environmental assessment for lease sale 215 in the Gulf of Mexico Western Planning Area (74 Fed. Reg. 46455). The Commission does not usually comment on notices of intent, but the coastal regions of western Louisiana and Texas contain some areas of special significance for protected marine life, including marine mammals and sea turtles. To ensure that the environmental analyses on this lease sale are complete, the Marine Mammal Commission offers the following recommendations and rationale.

## RECOMMENDATIONS

With regard to lease sale 215, the Marine Mammal Commission recommends that the Minerals Management Service—

- include in its environmental analyses the existing information on bottlenose dolphin stocks occurring in or near the lease sale area, as well as the need for or value of additional information to describe their status, natural history, and vulnerability to other threats;
- work with the National Marine Fisheries Service to ensure collection of essential baseline information on possibly affected bottlenose dolphin populations before development activities begin;
- include in its environmental analyses a comprehensive summary of existing information regarding the sperm whale and other deep-diving cetaceans in the proposed lease area, identify critical gaps in that information, and describe the studies and monitoring that would be necessary to ensure that the Service has adequate baseline information on these species in this area and will be able to detect potentially significant adverse effects if and when oil and gas development begins in the area; and
- discuss and analyze all aspects of the proposed lease sale and its potential effects on the Kemp's ridley sea turtle.

## **RATIONALE**

### **Analytical requirements**

The National Environmental Policy Act and associated regulations require that the proposed environmental assessment describe and analyze the affected environment (including its physical, biological, and ecological aspects); the nature of the proposed action (including the methods that will be used to explore for, exploit, and transport oil and gas from the affected environment) and supporting activities (e.g., construction activities, support by vessels and helicopters); the individual and cumulative risks associated with the proposed and related actions; and the measures to prevent, minimize, mitigate, or otherwise respond to those risks. Analyses of cumulative effects must take into account other human activities in the area, including fishing, commercial shipping, and military operations. To be comprehensive, these analyses should include the expected physical, biological, ecological, and human-related effects of climate change.

### **Major risk factors**

The major risk factors associated with oil and gas development in this region will involve (1) generation of noise during seismic studies, construction, and general operations, (2) collisions between oil and gas-related vessel traffic and marine mammals, (3) risks of oil spills and leaks, and (4) habitat degradation related to contamination. These risks will be a function of the geographic extent and frequency of seismic studies, the amount and location of construction and drilling operations, the types and extent of transport systems, the adequacy of prevention measures and response capabilities, the nature of environmental conditions and their severity (e.g., hurricanes), and the ability of the Service and oil and gas operators to avoid or anticipate and account for simple human error.

### **Cumulative effects**

Additional human-related environmental risk factors in this area not directly related to oil and gas exploration, development, and production include fisheries; commercial shipping; chemical contaminant and nutrient run-off from shore-based and inland industry, agriculture, and residential developments; and climate change, including such specific effects as changes in the incidence and magnitude of hypoxic zones and harmful algal blooms. Fisheries may affect the biological/ecological environment through both operational (e.g., bycatch) and ecological (e.g., competition) interactions. Climate change likely will alter the physical, biological, and chemical environment, perhaps dramatically, during the lifetime of any oil and gas efforts in this region. Perhaps the most severe changes to be anticipated would be an increase in the frequency and severity of storms that, even under current conditions, are known to be extreme in this region. Such an increase has been predicted for a great many areas and may already be evident in patterns of hurricane activity for the Gulf of Mexico and Atlantic coast. Other human activities likely will expand in this region as the human population grows. Texas, for example, is the third fastest-growing state in the United States and much of that growth is, and will continue to be, along the Gulf coast.

## **Bottlenose dolphins**

The Texas-Louisiana coast and offshore waters present considerable challenges to oil and gas operations. The region includes extensive shallow estuaries and bays that support a number of local bottlenose dolphin populations. The relationships among these populations, including the extent to which they interbreed, are not yet clear. However, these populations may be made up of genetically distinct stocks and, to be precautionary, the Service's analyses either should treat them as such or at least recognize that possibility.

The Service's risk analysis with regard to these putative stocks will be compromised by insufficient information regarding their status, including abundance and trends, age/sex composition, and vulnerability to other risk factors. Collection of such information is, first and foremost, the responsibility of the National Marine Fisheries Service. However, as the action agency in this case, the Minerals Management Service also bears responsibility for collecting the information needed to determine if significant adverse effects occur as a result of its operations. These populations are vulnerable to oil and gas operations because of their fidelity to sites that may be affected by multiple aspects of oil and gas development, their small numbers, and their position as top-level predators, which renders them particularly vulnerable to bio-accumulation of toxic contaminants in their tissues. Therefore, the Marine Mammal Commission recommends that the Minerals Management Service include in its environmental analyses the existing information on bottlenose dolphin stocks as well as the need for or value of additional information to describe their status, natural history, and vulnerability to other threats. Stock assessment information for the putative stocks can be found on the National Marine Fisheries Services Web site at <http://www.nmfs.noaa.gov/pr/sars/draft.htm>. If the lease sales are to progress in this area, the Marine Mammal Commission further recommends that the Minerals Management Service work with the National Marine Fisheries Service to ensure collection of essential baseline information on possibly affected bottlenose dolphin populations before development activities begin.

## **Sperm whales and other deep-diving species**

The broad shallow continental shelf in the northern part of the lease area gives way to a narrow shelf punctuated by undersea canyons. Tagging and survey studies conducted as part of the Minerals Management Service's Sperm Whale Seismic Study program indicate that these canyons provide important habitat for sperm whales and other deep-diving species including beaked whales and pygmy or dwarf sperm whales (*Kogia* spp.). The results from the Sperm Whale Seismic Study suggest that sperm whales do not respond by moving horizontally when they are more than one kilometer away from working seismic survey vessels but that they may alter their foraging patterns by slowing their foraging rate. Potential responses by beaked whales and *Kogia* spp. are not as clear and require further study, but other sources of loud noise (i.e., mid-frequency sonar) have caused beaked whales to change their behavior in ways that, in at least some situations, have led to stranding and death. They also might respond to oil and gas exploration, development and production activities by abandoning important habitat, which could in turn reduce their reproductive and survival rates. Alternatively, they may simply habituate to the loud noises with no significant population-level effects. In view of the uncertainty regarding deep-diving marine mammal species in

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this area and their possible responses to oil and gas activities, the Marine Mammal Commission recommends that the Minerals Management Service include in its environmental analyses a comprehensive summary of existing information regarding the sperm whale and other deep-diving cetaceans in the proposed lease area, identify critical gaps in that information, and describe the studies and monitoring that would be necessary to ensure that the Service has adequate baseline information on these species in this area and will be able to detect potentially significant adverse effects if and when oil and gas development begins. The recommended baseline surveys might also shed light on the possible use of this area by Bryde's whale, a poorly known baleen whale for which we have little data in the Gulf. This species is detected occasionally during surveys in the area and also has been struck by vessels in Gulf.

### **Other biodiversity**

Although the Marine Mammal Protection Act focuses primarily on marine mammals, its primary objective is to maintain the health and stability of marine ecosystems. Maintaining marine biodiversity is one aspect of that objective, and the Marine Mammal Commission recommends that in its environmental analyses the Minerals Management Service discuss and analyze all aspects of the proposed lease sale and its potential effects on the Kemp's ridley sea turtle. This species uses the beaches of the southern coast of Texas and adjacent Mexican coastline for nesting. Although other species of sea turtles also use the waters and beaches of this region, the Kemp's ridley sea turtle is of special concern because its nesting period is relatively short and synchronous, much of the population is aggregated during that period, and the consequences of an oil spill could be more profound for this relatively rare turtle. The Service's analysis should describe the existing information on this species and the nature of the risks to it from oil and gas development in the proposed lease area.

We hope that our recommendations and comments are useful. Please contact me if you have any questions about them.

Sincerely,

A handwritten signature in blue ink that reads "Suzanne Montgomery for". The signature is written in a cursive style.

Timothy J. Ragen, Ph.D.  
Executive Director