

Testimony of Dr. Moby Solangi
Before the
House Energy and Commerce Committee
June 7, 2010

My name is Moby Solangi. I received my Ph.D. in marine biology in 1980 from the University of Southern Mississippi. The subject of my research was the effects of south Louisiana crude oil on benthic and pelagic fishes, which focused on the pathological changes in vital organs of these fishes exposed to both whole crude oil and its water-soluble fractions, and the potential recovery once the toxicant was removed. For the past 30 years I have worked with marine mammals, specifically dolphins, and sea turtles in the region.

The waters of the Mississippi, Chandeleur, and Breton Sounds and the adjacent waters of the north central Gulf of Mexico (**nGOM**) are home to one of the largest dolphin populations in the United States. The Sounds are also inhabited by several other endangered, threatened, and protected wildlife species. Dolphins are an important part of the ecosystem, and, being on the top of the food chain, are good biological indicators of the health of the environment they inhabit. They are constantly impacted by a variety of both natural and anthropogenic factors. In the aftermath of the Horizon oil spill, it is now even more necessary and important to study the potential changes that may occur in both the dolphins and their habitat as a result of the oil spill.

The Institute for Marine Mammal Studies (“IMMS”) was established in 1984 as a non-profit 501 (c) (3) organization dedicated to education, conservation, and research on marine mammals and their environment in the wild and in captivity. It serves as a liaison between public and private entities interested in marine mammal science. Subjects of research have covered a broad range of scientific disciplines including population dynamics, underwater acoustics, health, genetics, microbiology, endocrinology, behavior, biomagnetism and ecology. The Institute has conducted studies in cooperation with scientists from the University of Southern Mississippi, Mississippi State University, Jackson State University, Oklahoma State University, Portland State University, University of Miami, University of California, Berkeley, National Marine Fisheries Service, Naval Ocean Systems Center, Louisiana State University, and the Naval Research Laboratory.

IMMS is the only organization in the Gulf Coast states of Mississippi and Alabama with the capability and expertise to care for sick and injured marine mammals while simultaneously conducting programs in education, conservation, and research of marine mammals. IMMS has been a participant of the National Stranding Network for over 25 years, and, as a National Marine Fisheries Service (NMFS) designee, has been involved in the care and rehabilitation of sick and injured marine animals in the Mississippi, Louisiana, Alabama sub-region. In fact, the Institute has developed a full service marine mammal research and rehabilitation center in Gulfport, Mississippi.

The Horizon oil spill is one of the largest in US History. The Mississippi Sound and adjacent waters are a very unique habitat consisting of bays, bayous, estuaries, marshes, and barrier islands. The **nGOM** is shallow, has a mud and clay bottom, and the tidal exchange is low as

compared to other areas. The region is also very rich in fishery resources, and produces a substantial amount of seafood. If the oil well is not capped quickly, the effects of the oil spill on the habitat and its wildlife could be catastrophic, and the time for recovery would be dependant on the amount of oil spilled in the environment and time of exposure.

Crude oil is a very complex chemical compound, and its degradation is extremely complex as well. Many crude oil components can enter the food chain and affect the productivity of the ecosystem. The potential effects of the oil spill, including the large amount of dispersants used, will not only affect the ecosystem, but could also affect the livelihoods of commercial and recreational fishermen, and tourism. This in turn could have a domino effect on the regional and national economy.

Oil exploration, like many other activities, has its benefits and risks. We believe that prudent development and use of our resources require adequate safeguards, as well as a safety net to protect the environment and those that make a living from it.