

# Marine Mammals and Fisheries



Humpback Whale, Scott Landry, Center for Coastal Studies

## Marine Mammal Protection

For centuries, marine mammals and fishermen have shared the oceans. At times, however, fishing operations and marine mammal activities overlap, which may result in an unwanted interaction. Recognizing that marine mammals become unintentionally caught in commercial fishing operations, Congress amended the Marine Mammal Protection Act (MMPA) in 1994 adopting a new management strategy to regulate the incidental take of marine mammals in commercial fisheries.

The Marine Mammal Protection Act was enacted in 1972. Primary goals of the Act are to maintain marine mammal stocks at their optimum sustainable population (OSP) level and to restore depleted stocks. To achieve these goals with respect to fisheries, the amendments of 1994 put into place a long-term management strategy which included: the preparation of marine mammal stock assessment reports (SARs); a registration and incidental take monitoring program for certain commercial fisheries; a marine mammal incidental injury and mortality self-reporting requirement for all fisheries; and the development of take reduction plans for strategic stocks, which when implemented, reduce incidental take in commercial fisheries to below the potential biological removal (PBR) level within 6 months and to insignificant levels approaching zero (commonly referred to as ZMRG) within 5 years.

A mechanism for issuing permits to incidentally take marine mammals listed under the Endangered Species Act (ESA) of 1973 was also added under the provision that, in addition to other restrictions, incidental mortality and serious injury from commercial fisheries will have a negligible impact on the stock, and that a recovery plan has been or is being developed for the species.

### Stock Assessment Reports

SARs provide the necessary scientific basis for the incidental take regime. The MMPA directs that each assessment describe the geographic range of the stock; provide a minimum population estimate and current population trend; estimate the annual human-caused mortality and serious injury by source; assess whether the level of human-caused mortality and serious injury would cause the stock to fall below its OSP level; and estimate the PBR level for the stock. The report also includes descriptions of commercial fisheries known to interact with the stock; estimates of fishery-specific mortality and serious injury levels; and an assessment of whether incidental take levels are approaching a zero rate goal.

### Definitions

#### **Potential Biological Removal**

(PBR) level is the maximum number of animals (not including natural mortality) that can be removed from the stock while allowing the stock to reach or maintain its optimum sustainable population level.

#### **Zero Mortality Rate Goal (ZMRG)**

To meet the requirement of the ZMRG, NOAA Fisheries needed to establish a threshold level for mortality and serious injury. The final rule (69 FR 43338, July 20, 2004) established the insignificance threshold as 10 percent of the PBR for a marine mammal stock.

#### **Strategic Stocks**

A stock is considered strategic if direct human-caused mortality exceeds the PBR, it is listed under the ESA, it is declining and likely to be listed under the ESA, or it is designated as *depleted* under the MMPA (*stock is below its OSP or is listed under the ESA*).

---

## Fisheries Classification

NOAA Fisheries must classify each commercial fishery under one of three categories according to the frequency of incidental marine mammal injury or death (published as the List of Fisheries). This involves a 2-step process that first assesses the impact of all fisheries on a marine mammal stock and then addresses the impact of individual fisheries on each stock. The Proposed List of Fisheries is published annually in the Federal Register for public comment. New information or observed interactions can change a fishery's category during annual review. Category I and II fisheries are those in which incidental injury or death of marine mammals is frequent or occasional. These fisheries must register with NOAA Fisheries and may be required to carry an observer. Category III fisheries are determined to have a remote likelihood of or no known incidental mortality or serious injury of marine mammals and are not required to register. Regardless of Category, fishermen must report to NOAA Fisheries any marine mammal mortality or serious injury that occurs incidental to their operations within 48 hours of returning from a fishing trip.

On-board fishery observer programs are considered the best source of information for assessing the level of marine mammal interactions with a fishery. However, due to the significant expense of these programs they are not widely available. Consequently, NOAA Fisheries may consider other criteria to classify commercial fisheries including fishing techniques, gear type, methods to deter marine mammals, qualitative data from logbooks or fishermen reports, stranding data, occurrence and distribution of marine mammal species in areas fished and comparisons with similar fisheries.

## Take Reduction Plans

Category I and II fisheries must also comply with Take Reduction Plans (TRPs). Pursuant to the 1994 MMPA amendments, NOAA Fisheries must establish Take Reduction Teams to develop plans that assist in the recovery or prevent the depletion of strategic stocks that interact with Category I or II fisheries where human-caused serious injury or mortality are equal to or greater than the stock's PBR level. The immediate goal of a TRP is to reduce, within 6 months of its implementation, the incidental take of marine mammals below each stock's PBR level. The long-term goal of a TRP is to reduce, within 5 years of its implementation, the incidental take of marine mammals to insignificant levels approaching zero. Teams are composed of fishermen, scientists, conservationists, and state and federal fishery managers. The process takes into consideration the economics of the fishery, the availability of existing technology and existing measures in state or regional fishery management plans. Draft TRPs are published in the Federal Register and are available for public comment. Take Reduction Plans for stocks listed under the ESA must be consistent with Recovery Plans.

Take Reduction Plans affecting fisheries within the South Atlantic Council's area of jurisdiction are the Atlantic Large Whale TRP and the Mid-Atlantic Bottlenose Dolphin TRP. Fishery management efforts should coordinate with conservation and take reduction efforts outlined in TRPs.

## Entanglement of Large Whales

Entanglement in fishing gear commonly affects right whales and humpback whales although other species such as fin whales are also affected.

Annual mortalities attributed to fishery interactions are still exceeding PBR for both right whales (PBR=0.0) and humpback whales (PBR=1.3). Entanglements in trap/pot and gillnet gear by large whales often involves the goundline and/or vertical line leading to a buoy. A whale can become entangled through the mouth, around the head, flippers, tail stock and tail. Many entanglements of large whales are not always immediately fatal as large whales are often strong enough to swim off with gear still attached. Depending on how the gear is wrapped, the whale's ability to move or feed may be compromised. Death may eventually occur months later as a result of starvation. In some cases the gear may cut into the animal causing severe and chronic infection. Such long-term deterioration may be responsible for higher levels of mortality than previously considered. This is of particular concern for both calves and juveniles as gear on young animals can become embedded as the whale grows. Actions currently being employed to reduce mortality from entanglements include disentanglement efforts, seasonal closures and gear modifications.

Report entangled large whales to the Center for Coastal Studies 1(800) 900-3622 or the U.S. Coast Guard: VHF Ch.16. For marine animals other than large whales, contact your closest stranding network.



Right Whale, Scott Landry, Center for Coastal Studies