



Maryland Marine Mammal & Sea Turtle Stranding Program



Program Background

COL's first stranding response for a bottlenose dolphin in 1990

Marine mammals (whales, dolphins and seals) and marine turtles are protected species under the jurisdiction of two U.S. government agencies, the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service through the Endangered Species Act of 1973 and the Marine Mammal Protection Act of 1972. The Marine Mammal Health and Stranding Response Program is administered by NMFS and includes volunteer stranding networks in all coastal states. In

Maryland, the Marine Mammal and Sea Turtle Stranding Network has been administered jointly by the Maryland Department of Natural Resources at the Cooperative Oxford Lab (COL) and by the National Aquarium in Baltimore (NAIB) since the fall of 1990. COL stranding personnel respond to dead stranded animals while the NAIB responds to live animals.

From October 1990 through December 2000 COL stranding personnel responded to 116 dead stranded marine mammals (representing 17 species) in Maryland's Chesapeake Bay (12) and along Maryland's Atlantic coastline (104). Stranded species included: Atlantic white-sided dolphin, bottlenose dolphin, common dolphin, dwarf sperm whale, harbor porpoise, long-finned pilot whale, pygmy sperm whale, Risso's dolphin, short-finned pilot whale, sperm whale, striped dolphin, fin whale, humpback whale, minke whale, harbor seal, harp seal and hooded seal. Sixty-six percent of the cetacean strandings comprised two species, the harbor porpoise (44.8%) and the bottlenose dolphin (21.5%).

Network members responded to 213 dead stranded sea turtles (representing 4 species) in Maryland's Chesapeake Bay (103) and along Maryland's Atlantic coastline (110) from 1991-2000. Species included: loggerhead sea turtle, leatherback sea turtle, Kemp's ridley sea turtle and the green sea turtle. Ninety-one percent of the strandings were loggerhead sea turtles, 5% were leatherback sea turtles, 3% were Kemp's ridley sea turtles and 1% were green sea turtles.

What Species of Marine Mammals & Sea Turtles Have Been Seen in Maryland?

Toothed Whales:

- Common dolphin**
- Harbor porpoise**
- Bottlenose dolphin
- Pygmy sperm whale
- Dwarf sperm whale
- Striped dolphin
- Sperm whale
- Risso's dolphin
- Atlantic white-sided dolphin
- Long-finned pilot whale
- Short-finned pilot whale
- Cuvier's beaked whale
- True's beaked whale
- Atlantic spotted dolphin
- Killer whale
- Melon-headed whale



Baleen Whales:

- Minke whale**
- Humpback whale
- Fin whale
- Sei whale
- Blue whale
- Northern right whale



Hair seals:

- Harp seal**
- Harbor seal
- Hooded seal
- Gray seal



Sirenian:

- West Indian manatee

Sea Turtles:

Loggerhead sea turtle

Leatherback sea turtle

Kemp's Ridley sea turtle

Green sea turtle



Why Study Marine Mammals and Sea Turtles?

Marine mammals and sea turtles have stranded on shores worldwide for ages, but the reasons for these events are only now becoming understood. Prior to the 1970's there were virtually no standards for the examination and collection of samples from marine mammals and sea turtles. The Endangered Species Act of 1973 and the Marine Mammal Protection Act of 1972 paved the way for the creation of formalized stranding networks that now collect standardized data through systematic means. Data are sent to regional offices of the National Marine Fisheries Service. This ensures that potential problems are evaluated for trends not only locally, but also regionally, nationally and globally. All information is compiled and is used to develop conservation strategies to protect these marine animals.

When these animals come ashore dead or ill, concern arises from the general public about the health of our oceans, bays and tributaries. Marine mammals and sea turtles serve as indicator species, alerting us to potential environmental problems. Stranded animals also provide a valuable opportunity to investigate the life history, diseases and mortalities of these oftentimes elusive marine animals. Strandings allow us to examine animals for signs that human behavior is negatively impacting marine mammal and sea turtle populations and to investigate the causes of natural mortality.

Much of what we have learned about marine mammals and sea turtles comes from the study of stranded animals:

- Existence of some species is known only from stranding data
- Information on growth rates, age at maturity, gestation period, birth intervals, reproductive season, longevity
- Illnesses and mortalities caused by human interaction, viruses, bacteria, parasites and algal toxins and the types, amount, geographic sources and trends in the levels of oceanic contaminants

What Do We Do With A Stranded Marine Mammal Or Sea Turtle?

For each animal the latitude and longitude of the stranding location are recorded along with morphometric data, carcass condition (freshly dead, moderately decomposed, severely decomposed, skeleton/bones only, dried carcass) and sex. Animals are photographed and examined externally for tags, commensal organisms, anomalies, disease, signs of injury and evidence of human interaction. A necropsy is performed to determine cause of death. Internal evidence of disease, parasites and anomalies is recorded. Stomach contents are evaluated for feeding activity, prey composition and ingestion of foreign bodies. Hemorrhage, broken bones and other potential signs of human interaction are noted. Samples for research (histology, microbiology and toxicology) and educational purposes are collected and sent to authorized institutions.



Length measurement of a pilot whale



Alphaherpes virus on a bottlenose dolphin



Hook, line & sinker removed from sea turtle's intestines

How Does Human Behavior Affect Marine Mammals & Sea Turtles?

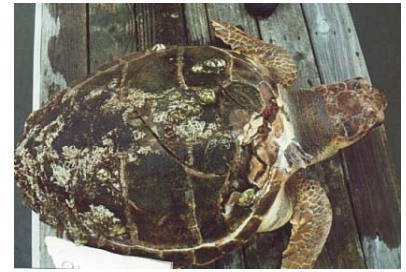
Marine mammals are threatened by human interaction in the form of habitat degradation, incidental capture, entanglement, and ship and boat strikes. Sea turtles are threatened by the destruction of critical nesting habitat, the taking of eggs, fishing activity and boat traffic. COL personnel have documented human interaction in a number of marine mammal and sea turtle strandings.



Pot line on loggerhead sea turtle flipper



Net marks on bottlenose dolphin



Propeller wounds on loggerhead sea turtle

Under the Marine Mammal Protection Act it is illegal to hunt, capture, pursue, swim with, feed, or otherwise harass wild marine mammals in United States waters. It is also illegal to import any marine mammal products into the United States.

What Can You Do To Help?

If you see a stranded animal...

1. Record its location.
2. Identify species or note color, length, head shape, dorsal fin shape and position.
3. Note carcass condition e.g. alive, fresh dead, moderate decomposition, advanced decomposition, skeleton.
4. Note obvious signs of human interaction e.g. entangled in gear or plastic, propeller wounds, etc.
5. Note the environment e.g. fishing nets in area or a large whale in a narrow, shallow creek
6. Call the Natural Resources Police 24 Hour Hotline at **1-800-628-9944** to report the stranded animal (dead or alive) and a Stranding Network member will respond.