INGESTION OF PLASTIC DEBRIS BY STRANDED MARINE MAMMALS FROM FLORIDA

Nélio B. Barros, Daniel K. Odell
Rosenstiel School of Marine and Atmospheric Science
University of Miami
Miami, Florida 33149, U.S.A.

and

Geoffrey W. Patton
Mote Marine Laboratory
1600 City Island Park
Sarasota, Florida 33577, U.S.A.

ABSTRACT

Ocean pollution in the form of plastic debris has been recently recognized as a major threat to marine wildlife. Injuries and fatalities caused by entanglement and ingestion of floating and submerged debris have been documented for an increasing number of marine vertebrates (mammals, birds, turtles, fish). Ingested plastics may cause a false sensation of fullness, decreasing feeding bouts, or may obstruct normal passage of food through the digestive tract.

Ingestion of plastic material is reported here for five species of marine mammals stranded along the Florida coast. These include four cetacean species (bottlenose dolphin, *Tursiops truncatus*; false killer whale, *Pseudorca crassidens*; pygmy sperm whale, *Kogia breviceps*; dwarf sperm whale, *K. simus*) and the sirenian, *Trichechus manatus* (West Indian manatee), from both coastal (*Tursiops truncatus*, *T. manatus*) and pelagic (*P. crassidens*, *K. breviceps*, *K. simus*) habitats. Debris included plastic jugs, disposable surgeon gloves, plastic bags, and monofilament lines. Plastic debris was usually found with food items (vegetation, and fish and cephalopod remains). On at least one occasion (an emaciated *T. truncatus*), ingestion of such material is believed to have contributed to death. With the increasing littering of the Florida coastline, plastic impact on marine mammal populations may be much more widespread than previously reported.

In R. S. Shomura and M. L. Godfrey (editors), Proceedings of the Second International Conference on Marine Debris, 2-7 April 1989, Honolulu, Hawaii. U.S. Dep. Commer., NOAA Tech. Memo. NMFS, NOAA-TM-NMFS-SWFSC-154. 1990.