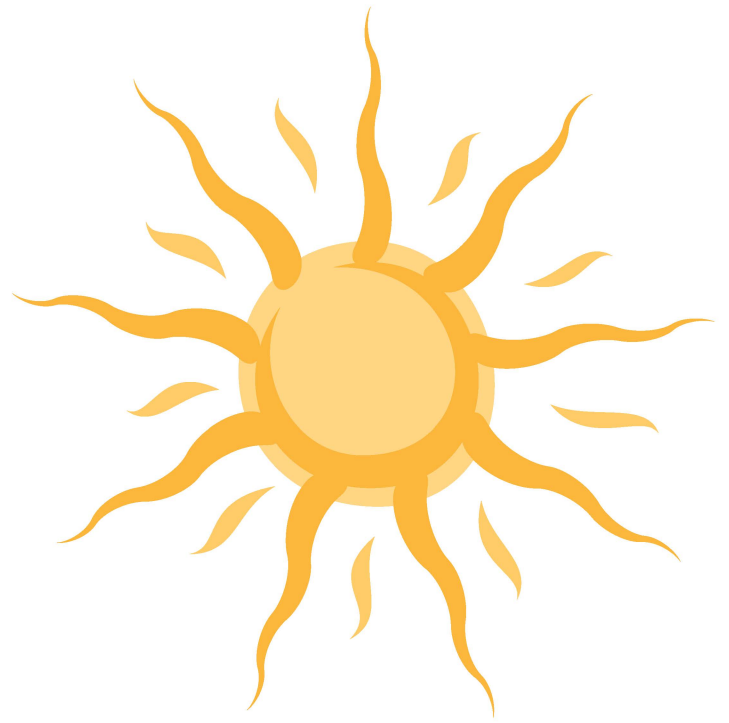
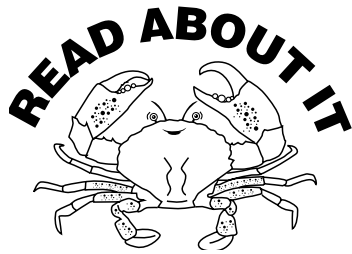


# The Educator's Guide to Marine Debris

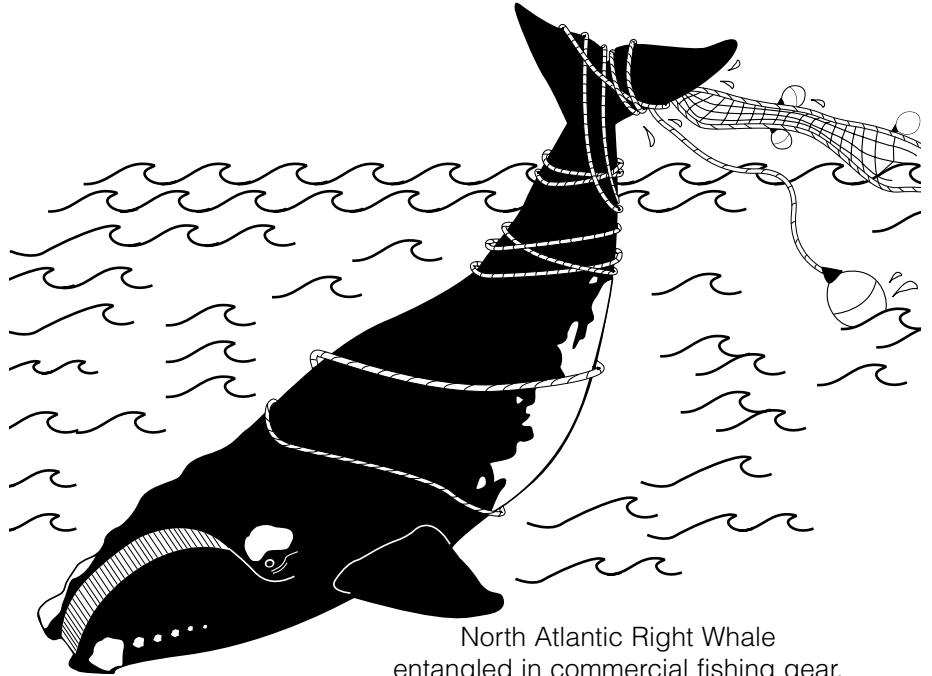
Southeast and Gulf of Mexico





## Marine Mammals Don't Use Fishing Nets!

Western Atlantic and Gulf waters are home for many marine mammals. Toothed whales (sperm, pilot), baleen whales (humpback, right and fin), manatees, and even harbor seals—live or migrate to reach feeding or calving grounds.



North Atlantic Right Whale entangled in commercial fishing gear.

Aerial photographs have shown endangered right whales dragging fishing nets and lines. People in North Carolina report harbor seals lying on the beach with plastic strapping wrapped around their necks. And a bottlenose dolphin was nearly killed due to a discarded swimsuit! Marine debris can entangle marine mammals and cause difficulty in breathing, hunting, and swimming. Unless the animal can shake loose, pressure from the water when the animal swims can cause the marine debris to cut through skin to the bone. This can cause problems in getting food and exposes the animal to infection. Marine debris can also cause harm if eaten by mistake.

Each year, approximately seven hundred marine mammals are found stranded along the Gulf of Mexico and Southeastern states of the Atlantic Ocean--some with symptoms of marine debris interaction.

Veterinarians and certified biologists perform **necropsies** on the bodies. Sometimes they document sad cases of marine mammal stomachs filled with plastic toys, bottles, and rope.

**NOAA** started the **National Marine Mammal Stranding Network (NMMSN)** that establishes stranding **protocols** or procedures for certified volunteers and researchers to follow once a stranded or injured marine mammal is located. The work of the **NMMSN** has helped to document strandings of marine mammal species along the southeastern Atlantic and Gulf of Mexico coasts.

For more information on marine mammals and the stranding network, visit [www.nmfs.noaa.gov/pr/](http://www.nmfs.noaa.gov/pr/).



# Activity | WHAT HURT THIS WHALE?

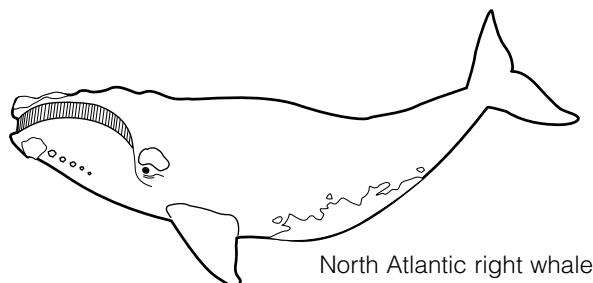
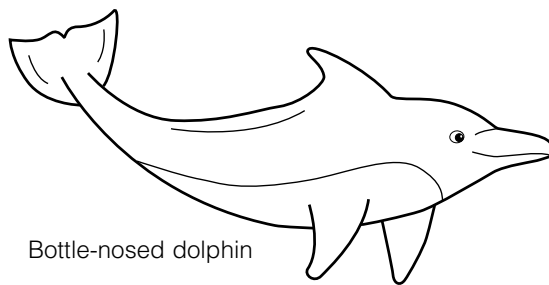
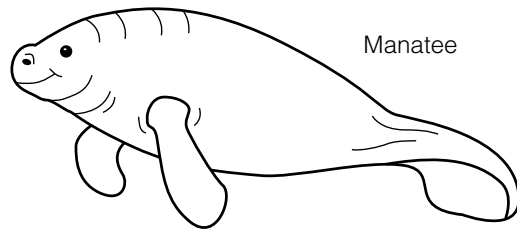
Marine debris of all types can cause injury or death to marine mammals. Crab traps and netting can entangle dolphins and harbor seals as they hunt along the estuarine bottom, manatees can snag fishing hooks discarded in the sea grasses as they graze along the tidal creek banks, and baleen whales can consume large amounts of floating marine debris as they gulp thousands of gallons of water to filter out their plankton dinners. Marine mammals need a safe haven in the waters off the Southeast and Gulf Coasts. Those marine mammals that are unlucky need excellent volunteers and veterinarians to perform **necropsies** and investigate their deaths.

## OBSERVATIONS

Each “investigate a model” team presents the report for their stranding and compares it with the description from the “build a model” team.

## CONCLUSION

What could be done to reduce the number of injuries and deaths of marine mammals?



## PURPOSE

To investigate the cause of a marine mammal's death

## OBJECTIVES

*The students will:*

- Investigate injuries on a stranded marine mammal model
- Recommend strategies to prevent entanglement problems and ingestion of marine debris by marine mammals

## MATERIALS (PER TEAM)

- Paper template of a model of a right whale, dolphin, or manatee
- Paper images of plastics, e.g., bottle caps, bags, foamed cups, toys, and/or commercial fishing gear
- Tape
- Scissors
- Markers

## PROCEDURE

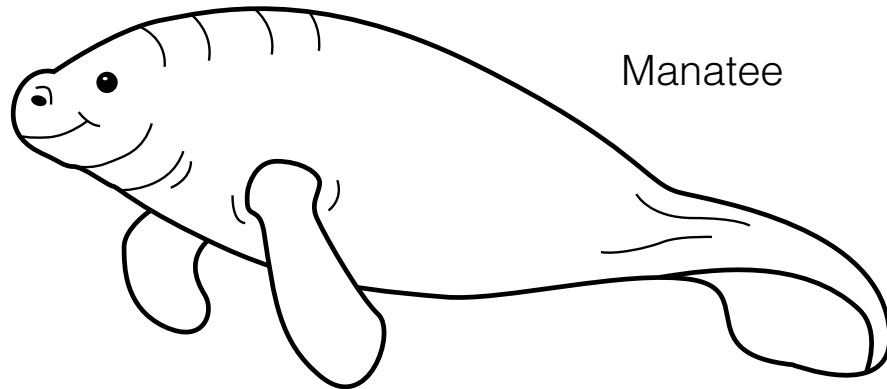
1. Divide the class into teams. Each team has two roles: the “build a model” role and the “investigate a model” role.
2. Each team decides on the scenario for the stranding of their marine mammal and prepares a one-paragraph description.
3. Each team makes a marine mammal 3 dimensional model based on their scenario, stuff the model's stomach with debris or draw or place scaled down fishing gear on the model's body.
4. Teams swap models.
5. Each team now investigates the new model and prepares a brief report on the evidence they find on the stranded model of the marine mammal.

Source: Lundie Spence, Ph.D., COSEE SE and Angela Bliss, Adopt-A-Wetland Coordinator, University of Georgia Marine Extension Service

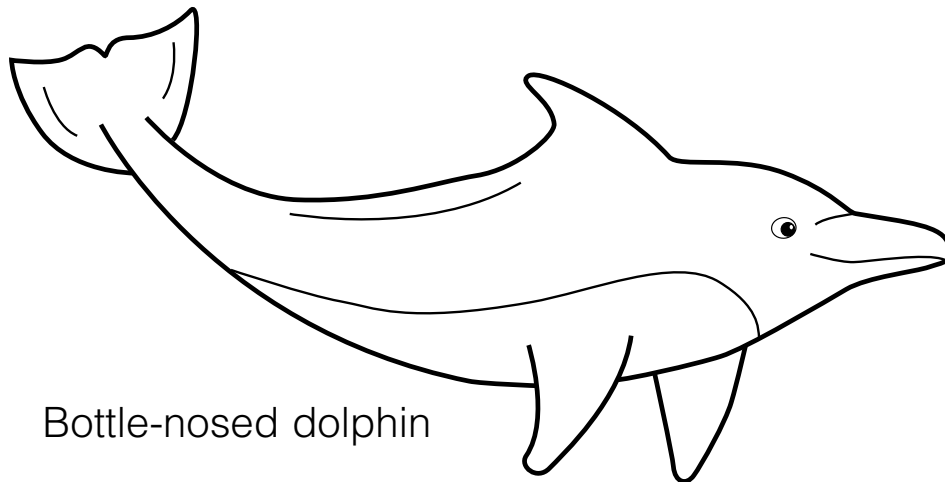


# Template for Marine Mammals

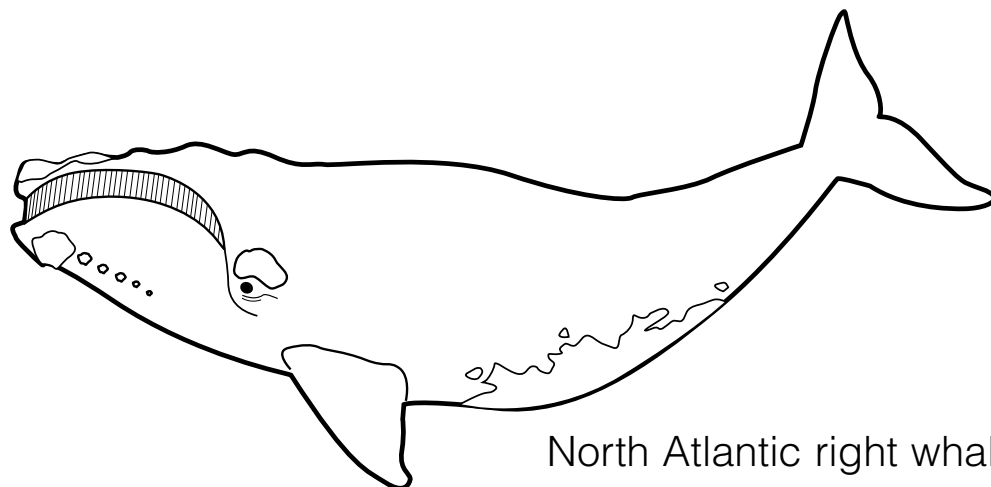
Note: Enlarge as needed



Manatee



Bottle-nosed dolphin



North Atlantic right whale