

MARINE DEBRIS AND SAWFISH

Educator Information For Student Activity 6

Lesson Summary:

During this activity, students will learn about the different types of marine debris, where it comes from and why sawfish are especially vulnerable. This activity also includes a simulation of how a sawfish might get entangled with students drawing conclusions about how entanglement will affect a sawfish.

Vocabulary:

Marine debris, ingestion, entanglement

Background Information:

Marine animals including sawfish face the threat of ingestion or entanglement in trash referred to as marine debris. Marine debris is trash that enters the marine environment due to careless handling or disposal. The most common categories of marine debris are plastic, glass, rubber, metal, paper, wood, and cloth. Sawfish can get their rostrums easily entangled in debris due to the teeth along the edges of the rostrum. They may also swallow plastic objects, bags, balloons, improperly discarded fishing gear and fishing lures. If a sawfish becomes entangled, the debris can affect its mobility or cut into the sawfish's flesh causing infection. It can also affect the fish's ability to feed properly. If plastic marine debris is ingested, it can remain within the digestive system of the fish, affecting its ability to feed or feel hunger.

Materials:

Water basin/Tupperware (teaching kit container)/aquarium

Water

Plastic sawfish replica (included in teaching kit)

Netting (included in teaching kit)

6-pack plastic rings and/or rubber bands, other debris –have students collect from home

Trash Travels handouts

Crayons, colored markers, or colored pencils

Poster boards

Procedure:

Fill up the water container with clean tap water

Add some dirt or sediments enough to make the water murky to simulate the natural habitat

Place the plastic sawfish replica into the water. Cut the netting to an appropriate size, place across the container, submerged as a discarded drift net would have been used by fishers out in coastal waters where sawfish reside. Also add other potential marine debris such as rubber bands, and other plastic items.

Show how aquatic animals can get entangled in plastic/rubber bands



Discussion Questions:

Discuss trash that ends up in coastal and ocean waters and where it originates. Introduce students to the term “marine debris”.

Where does marine debris come from? (refer to the Trash Travels handout)

How does marine debris affect aquatic wildlife? In particular, how could marine debris affect sawfish? Discuss why sawfish are especially vulnerable to marine debris due to their anatomy.



Have students use these examples and their own ideas to create posters that shows the consequences of marine debris and what can be done to eliminate marine debris.

How can marine debris be reduced? Recycling, pollution prevention strategies (including discarded fishing line collection at marinas and boat launches), use products that are reuseable rather than disposable (take your own bag to the grocery).

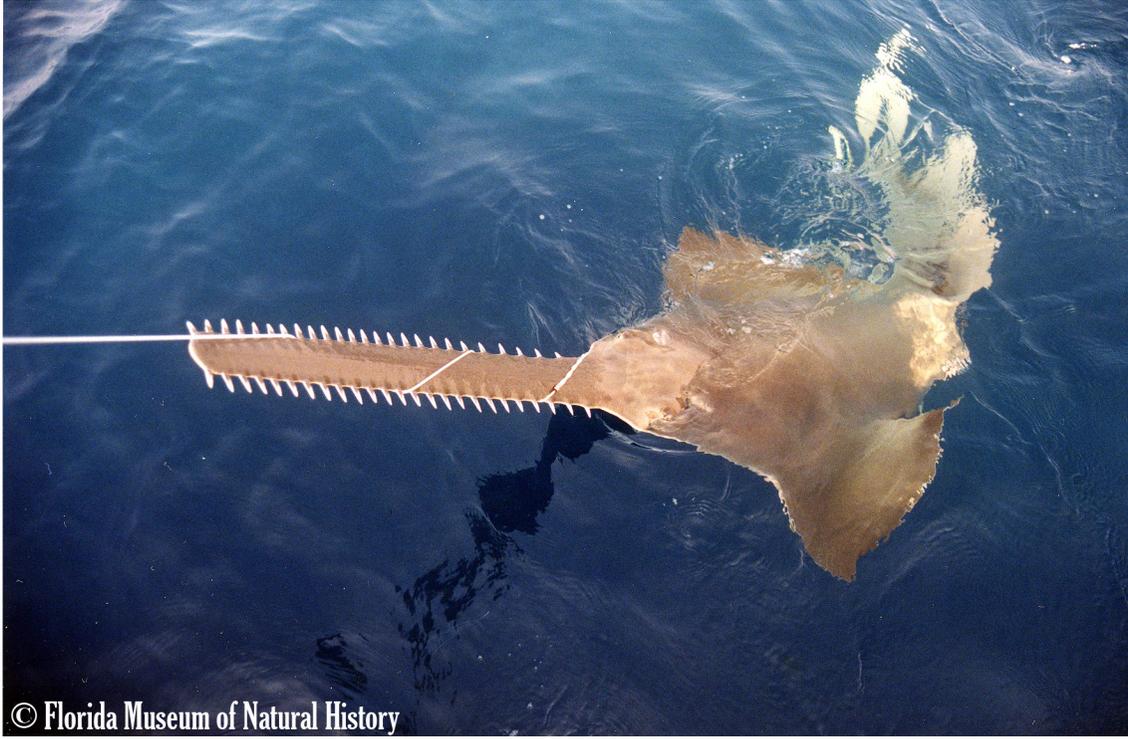
Additional Activity:

Follow up with a clean up activity at a local beach (stream, river or watershed). Have the students record the types of trash they find and weigh what is collected.

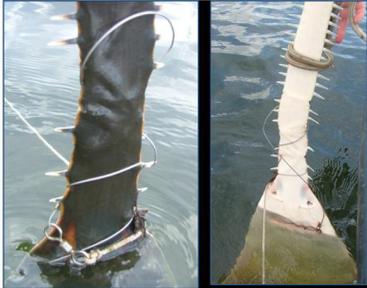




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Trash Travels!

From the land to the ocean – How trash becomes marine debris.

