Lesson 12: Threats to Manatees

Objective: Students will learn about threats to manatee survival

Key words: monofilament fishing line, watercraft, entangled,

You will need:

- source of music that can be turned on and off
- chairs
- tape
- printed manatee threat cards (page 12-2 through 12-8) —make enough copies to have cards equal to your number of students, minus 1

Strategy:

1. Explain to students that many things can affect a manatee’s ability to survive. They are going to play Manatee Musical Chairs (activity modified from Sea World) to learn about these threats to manatees.
2. Set up chairs in a circle (facing outwards). You need one fewer chair than the number of students.
3. Tape one of the cards to the back of each chair (with the writing towards the back of the chair, so it cannot be seen.) Use as many duplicate cards as you need to—each chair should have a card.
4. Explain to the students that they are all manatees, trying to survive in the wild. Review the rules for musical chairs (Everyone gathers in a circle around the chairs. When the music starts, students must walk in single file in one direction—they must keep moving smoothly and slowly. When the music stops, students must sit in the chair that is closest to them. Only one child can sit in each chair. One child will not be able to find a seat.)
5. Start the music. Stop the music after a few seconds to a minute. Tell the child who does not have a seat that they can pick a card from any of the chairs. Have them read the information on the card. This will tell what happened to that “manatee”, which is now gone from the herd. That child sits down (this is a good time to have them work on manatee workbooks or coloring sheets), the chair from which the card was taken is removed, the circle of chairs is re-formed, and the game continues until only a single “manatee” remains.
6. Review with the students the threats that came about during the game. Write them up on the board under two headings: Human and Natural.
7. Ask the students to brainstorm about ways that they might be able to decrease some of the human threats. (e.g. Slow speed zones for boats in manatee areas—show sign; throwing away or recycling fishing line; not throwing trash in the water; not attracting manatees to docks with food or water; flood gates now have manatee detectors which prevent the gates from closing if a manatee is in the way.)

Standard addressed: SS.3.C.2.1

This activity is available online at http://stjohns.ifas.ufl.edu/sea/manatees.html
BOAT ACCIDENTS

When manatees are hit by boats, they can get broken bones or other injuries. Sometimes a broken rib will puncture a lung, which makes it difficult for a manatee to float.

FLOOD GATES

Flood gates are used to control the amount of water that can flow through an area. When these gates close, they can trap and crush manatees.

Photo from research.myfwc.com

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POACHING

Manatees can not legally be hunted, however sometimes people will kill them illegally for their meat. This is called poaching.

FISHING LINE

Fishing line can last up to 600 years in the water. When manatees swim into pieces of fishing line, it can get wrapped around their flippers. Sometimes it cuts into their skin and the cut can get infected. Manatees sometimes eat fishing line because they do not see it tangled up in the seagrass where they are feeding.
CRAB TRAPS

Crab traps are tied to one end of a rope. A float is on the other end of the rope. Manatees sometimes get tangled up in the rope when they swim around crab traps. The rope can cut into their flippers. It is hard for a manatee to swim when it is dragging a crab trap behind it.

Photo from sailblogs.com

RED TIDE

Red tide is caused by tiny plants that live in the ocean. These plants release chemicals into the air and water. When there are a lot of red tide plants around, the chemicals can make manatees sick.

http://stjohns.ifas.ufl.edu/sea/manatees.html
COLD WEATHER

Manatees need water temperatures warmer than 68°F in order to be healthy. When temperatures fall below this, manatees can get sick and even die from cold stress.

DISEASES

Like people, manatees can get sick. Sometimes they are not able to recover from illness.
FISHING HOOKS

Fishing hooks can get caught in manatees’ skin. The wound might become infected.

HABITAT DESTRUCTION

Manatees need clean, shallow water. They need plants to eat. Sometimes people make the water polluted, or build seawalls where plants used to grow. These actions can destroy the things that manatees need to be healthy.
TRASH

When people throw trash in the water, manatees can get tangled up in it. Manatees might eat trash by mistake. Some types of trash might injure manatees.

PROPELLERS

Manatees often get cuts on their backs, tails or flippers when they are hit by a boat propeller. The spinning blades leave a series of cuts on the manatee. If the cuts are deep, the manatee might die.
CANAL LOCKS

Canals are man-made water channels. When canals must carry water uphill or downhill, they are often controlled using gates called locks. These locks can crush manatees that get trapped when they are closing.

Photo from jimmyinsandiego.com