

Kids' pages

Are you ready to learn about the bay?

News for the kids
of Tampa Bay!

Spring 2018



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Manatee or mermaid?

Manatees were often mistaken as mermaids by sailors! On January 9, 1493, Christopher Columbus wrote in his ship log that on the previous day he "distinctly saw three mermaids, which rose well out of the sea; but they are not so beautiful as they are said to be." This was the first written account of manatees in North America!

Sources: mentalfloss.com, history.com, news.nationalgeographic.com; mmc.gov

Got a Question? Ask a Scientist!

Q I was swimming and saw an adorable manatee!
Is it okay for me to pet him?

A Even though manatees are often considered gentle giants (and very cute), you are not allowed to touch them. They are a protected species, meaning that they cannot be touched, bothered, or harmed. If you are caught doing so, you risk paying a fine, or depending on the case, even harsher punishment! These guidelines are put in place to protect some of our planet's plants and animals who we know need a little extra help!

Any animal, plant, or fungi can be placed on a list of protected species if the number of that species is decreasing. Only a small number of our world's thousands of animals, plants, and fungi species have been measured, or counted. The few that have been measured are placed in one of these categories: **least concern, near threatened, vulnerable, endangered, critically endangered, extinct in the wild, and extinct**. Each of these categories tells us how a plant or animal is doing in their habitat.

Scientists look at today's numbers and compare them to population numbers in the past. The classification of living things is an important tool to protect animals who are not doing as well today as they were historically. The three main groups in the **protected** category are: **vulnerable, endangered, and critically endangered**. These are animal, plants, and fungi whose populations are greatly decreasing. The risk and the rate at which they are decreasing



Source: islamoratadates.com

puts them in to their classified group from lowest risk to highest risk. If a plant or animal is critically endangered, they are the closest to becoming extinct. Being extinct means to no longer exist on our earth, like the dinosaurs.

The manatee was recently moved from **endangered** to **vulnerable**. The change in this classification means that instead of being one step away from extinction, they are now "two steps" away. Manatee populations are increasing! There are more manatees now than there used to be, but still not as many as we would hope. To keep their populations growing, it is important to keep this majestic marine mammal under protection. It is for their safety that we keep our distance and do not touch these animals. 🐬

Sources: environment-ecology.com; fws.gov; iucnredlist.org; Marsh, Helene, Thomas J. O'Shea, and John Elliott Reynolds, III. *Ecology and Conservation of the Sirenia: Dugongs and Manatees*. New York: Cambridge UP, 2011. Print; myfwc.com; oceanservice.noaa.gov; savethemanatee.org

Expand Your Mind!

Meet & Greet: Some of our Protected Florida Friends



GREEN SEA TURTLE

Chelonia mydas

Green sea turtles are olive brown marine turtles that can weigh up to 700 pounds! Female green sea turtles, like other sea turtles, nest and lay their eggs on sandy beaches. They usually pick the same beach where they were born! Newborn sea turtles are very vulnerable to predators as they are young. Only about one baby of every 1,000 eggs will make it to an adult sea turtle. Green turtles are classified as endangered. They are at risk not only when they are young, but also threatened by overharvesting of their eggs, hunting, being harmed by pollution, and the loss of beaches upon which to nest.

Sources: nationalgeographic.com;
worldwildlife.org; kids.nationalgeographic.com



FLORIDA MANATEE

Trichechus manatus

Manatees are large gray marine mammals that can get over three meters long and weigh over a ton! Manatees are nicknamed "sea cows" because of their slow, peaceful manner and because they can eat around 4-9% of their body weight in plants and algae a day! That is estimated to be around 30-108 pounds of food! They are often found just below the water's surface with their snouts sticking out above the water. Because of this, manatees are at risk of being hit by boats; most adult manatees have been struck by a boat at some point in their lives. Other risks to these animals are habitat destruction, entanglement, ingestion of marine debris, and cold shock.

Sources: An International Centre for Manatee Research: Report of a Workshop Held 7-13 Feb. 1974, Georgetown, Guyana, South America. Georgetown, Guyana: Guyana Lithographic Limited, 1974. Print; myfwc.com; nationalgeographic.com; Reynolds, John Elliott, III, and Randall S. Wells. Dolphins, Whales, and Manatees of Florida: A Guide to Sharing Their World. Gainesville: U of Florida, 2003. Print; seaworld.org; Carol Grant, Getty Images



SMALLTOOTH SAWFISH

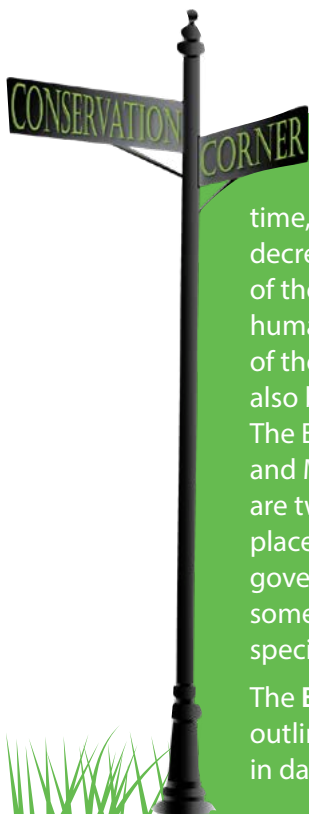
Pristis pectinata

Sawfish are amazing fish that can get up to an average of 18 feet long! They get their name from their long saw-like snout outlined with many "teeth," which are actually modified scales! Sawfish are often mistaken as sharks because of the way they swim, but they are actually a type of ray! Sawfish like to live in rivers, estuaries, and bays. Smalltooth sawfish are critically endangered, meaning they are very close to becoming extinct due to overfishing and destruction of their habitat.

Sources: myfwc.com;
floridamuseum.ufl.edu; iucnredlist.org;
nmfs.noaa.gov; myfwc.com; Getty Images



Our education programs get kids into the bay!



What Protection Means for Animals...

Animals are classified as “protected” because their populations are decreasing. Most of the time, animal populations are decreasing because of some of the impact on them by humans. If humans are a part of the problem, then we can also be a part of the solution! The Endangered Species Act and Marine Mammal Act are two of the laws put into place by our United States government to help protect some of our struggling species.

The **Endangered Species Act** provides a legal outline to protect animals and their habitats that are in danger of becoming extinct. The **Marine Mammal**

Act gives similar protections but focuses on our marine mammals, forbidding harassment, hunt, capture, and the killing of any marine mammals. Manatees are protected under both acts.

We can help protect these animals by following the rules put into place and by being aware of issues threatening our ocean habitats.

There are also many simple ways to help protect our endangered animals! Simple acts like picking up trash from our coastlines, recycling, planting native plants, respecting protected areas, and being careful when you are boating are all ways to help!



Sources: endangered.org; fws.gov; nmfs.noaa.gov; Pete Markham/Flickr

Fun Facts about Manatees!

- ✎ Unlike our brains which have folds, manatees’ brains are smooth!
- ✎ Manatees can hold their breath up to 20 minutes, but prefer to breathe around every four minutes.
 - ✎ If you are a mammal, no matter if you are a human, mouse, tiger, or whale, you have seven vertebrae in your neck. Manatees and tree sloths are the only mammals with just six!
- ✎ Manatees’ closest living relative is the elephant!

Sources: myfwc.com; pbs.org; smithsonianmag.com



Did You Know...



Manatees often swim near power plant facilities (which expel warm water) to keep warm through the winter. It is estimated that up to around 60% of all manatees spend their winters at power plant water outflows. Source: pbs.org.



Fun Activity:

A manatee you can cuddle!

Make a snuggly friend from an old t-shirt!

Things you'll need:

- One large t-shirt
- Sewing thread that matches your shirt
- Printed sewing pattern from welivedhappilyeverafter.com
- Black felt
- Sewing thread that matches your felt
- One bag of stuffing
- Optional bow and other decorations

Instructions:

1. After printing and cutting out your pattern pieces, lay them out on your t-shirt.
2. Cut out the pattern on your t-shirt.
3. Sew together the flipper cut outs, leaving a hole for stuffing, then flip your sewn flipper inside-out. Stuff with fill and sew flipper shut. Repeat with other flipper and tail.
4. Sew body together, leaving holes for stuffing, and flip inside-out. Stuff and sew shut.
5. Sew stuffed arms and tail onto the main body.
6. Cut four little oval dots out of your felt: two larger dots for eyes and two smaller ones for the nose holes. Cut a long strip for the mouth in a rounded "W" shape. Attach to your manatee.
7. After you have attached your felt pieces, to get the "chin" shape, secure your thread to one of the ends of your manatee's new smile. Pull the thread across the underside of the smile and make a stitch in the other corner of the smile. Repeat to make the stitches strong.
8. Lastly, attach a bow on the top of your manatee's head and add any other additional decorations.

Find more detailed instructions and manatee printouts at welivedhappilyeverafter.com/up-cycle-tee-shirt-into-manatee-pillow

Source: Hannah Hathaway





ANSWER KEY

1. C. The group that includes manatees and their dugong cousins is called Sirenians, which refers to their mermaid history.
2. D. For example, a 1,000-pound manatee could eat up to 90 pounds of food in a day!
3. A. Overharvesting is a threat of sea turtles, another protected Tampa Bay animal.
4. B. All other mammals have seven vertebrae!
5. B. Power plant waters are much warmer than their natural habitats in the winter.
6. If a plant or animal is **critically endangered** (2 words), they are the closest to becoming extinct.
7. The classifications "vulnerable," "endangered," and "critically endangered" fall into a broader categorical term called "**threatened.**"
8. Dinosaurs are an example of animals that are now **extinct.**
9. A manatee's closest living relative is the **elephant.**
10. Answers will vary. *Example answer: Today, the U.S. Government has passed the National Ladybug Protection Act, effectively immediately. This new law will target three threats in hopes to increase ladybug populations across the country. This law requires the 1) inclusion of ladybugs in environmental assessments to avoid critical habitat destruction 2) implementation of ladybug "sanctuaries" amongst heavily populated areas including shade and shallow water resting areas to avoid dehydration and 3) sustainable farming of ladybug host plants to be distributed for commercial and recreational landscape use*

Kids' pages Investigations

Topic: Manatees



Spring 2018 edition

Instructions: Read through the appropriate Kids' Pages edition and answer the questions below. Once all the questions have been completed, refer to the Answer Key to check your work.

Multiple Choice (choose one):

- Manatees were often mistaken by sailors for which type of mythical creature?
 - Sea serpent
 - Kraken
 - Mermaid
 - Leviathan
- At the maximum, manatees can consume what percentage of their body weight in vegetation?
 - 3%
 - 6%
 - 4%
 - 9%
- Which of the following is NOT a threat faced by manatees?
 - Overharvesting
 - Boat strike
 - Cold shock
 - Entanglement
- Which two animals below are the only two mammals with six neck vertebrae?
 - Sloth and tiger
 - Manatee and sloth
 - Manatee and whale
 - Whale and mouse
- Roughly what percentage of manatees spend their winters near the warm-water outflows of power plants?
 - 30%
 - 60%
 - 20%
 - 70%

Fill in the Blank:

- If a plant or animal is _____ (2 words), they are the closest to becoming extinct.
- The classifications "vulnerable," "endangered," and "critically endangered" fall into a broader categorical term called "_____."
- Dinosaurs are an example of animals that are now _____.
- A manatee's closest living relative is the _____.

Short Response:

- Using the information from the Conservation Corner section of Kids' Pages, draw up your own protection act for a species of your choosing. Use the Endangered Species Act and Marine Mammal Act for inspiration to create a title and three targeted actions your act will accomplish to protect your chosen species.