LEARNING OBJECTIVE

The objective of this activity is to illustrate the number of threats to sawfish and begin a conversation about how people can help reduce these threats.

BACKGROUND

Sawfish are some of the most threatened fishes in the world and have been reduced in number and range due to various threats. These threats include fishing (sawfish are often captured accidentally in nets), habitat destruction (in the form of coastal development, mangrove destruction, introduction of dams in rivers), pollution, and entanglement in human-made waste (such as abandoned nets, fishing lines, and various garbage). Some young sawfish also face natural threats such as being preyed upon by crocodiles and sharks. You can help sawfish conservation by reducing and removing human-caused threats to prevent further declines of sawfish populations around the world.

CONSTRUCTION MATERIALS

Poster. This poster is available as a PDF in three sizes (31 cm x 46 cm, 46 cm x 69 cm, or 61 cm x 91 cm) at 300 dpi. Altering dimensions may reduce image quality.

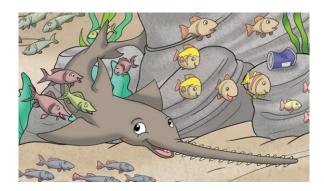






THE LESSON

1. Have participants look for the hidden sawfish in the seaside scenery, which contains animals and habitats from around the world. This can be difficult as there are many fish that look similar to the sawfish including the sawshark, swordfish, gar, and paddlefish, but there is only one sawfish in the scene.



- 2. After they locate the sawfish, ask if they saw anything that might harm the sawfish? Ask them to point out the different threats. Possible threats include:
 - a. **Dam** Dams prevent sawfish from moving upstream in rivers, which some species use as nurseries
 - Shoreline development/destroyed mangroves Sawfish depend on mangroves and other nearshore areas for protection from predators and for feeding
 - c. **Pollution/run-off** Like all fishes, sawfish need a healthy environment to live in
 - d. **Net and line fishing** Sawfish are caught, typically unintentionally, and killed to get them out of nets or off fishing lines
 - e. **Abandoned nets** Sawfish easily become entangled and killed in lost and discarded nets
 - f. **Discarded garbage** (e.g., plastic bags, 6-pack plastic rings) Sawfish saws can become entangled in and damaged by discarded garbage
 - g. **Crocodiles (natural threat)** Some types of crocodiles are predators of young sawfish
 - h. **Sharks (natural threat)** Some types of sharks like bull sharks are predators of young sawfish





- 3. After they locate the different threats, ask how they think they can help save the sawfish from the threats. Possible solutions include:
 - a. Prevent dam construction, remove dams, or provide ways for sawfish to go around or through dams in rivers inhabited by sawfish
 - Protect sawfish habitat by preventing nearshore development in areas where sawfish live, like mangroves, and helping with shoreline recovery activities like planting mangroves
 - c. Don't pollute waterways with fertilizers, oils, and other pollutants
 - d. Do not use nets in areas with sawfish, and safely release sawfish alive from nets (with their saws intact) using the methods in the SCS sawfish identification and release pamphlet (https://www.sawfishconservationsociety.org/international-sawfish-day)
 - e. Pick-up garbage in rivers, the ocean, or on land. Discarded fishing lines, nets, and garbage often get blown or washed into rivers and the ocean.
 - f. While crocodiles and sharks sometimes eat young sawfish, they are important predators and should not be killed or moved to help sawfish. Sawfish can use their saws to defend themselves from predators.





BONUS ACTIVITY: What is a sawfish?

LEARNGING OBJECTIVE

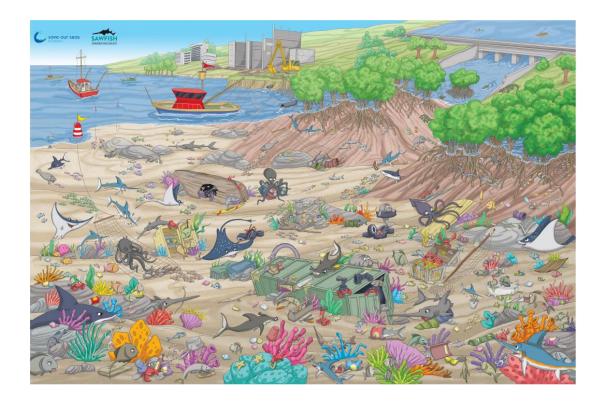
The objective of this bonus activity is to illustrate how to identify a sawfish.

BACKGROUND

Sawfish are shark-like rays that have a long tooth-lined saw that makes them easy to tell apart from most other fishes. However, a few types of fishes that are found in different parts of the world occasionally get mistaken for sawfish including the sawshark, paddlefish, gar, and various billfishes like swordfish. While these fishes may be somewhat similar in appearance to sawfish, there are easy ways to tell them apart.

CONSTRUCTION MATERIALS

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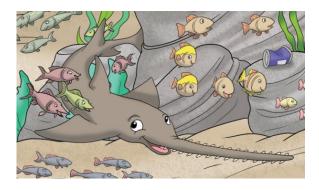






THE LESSON

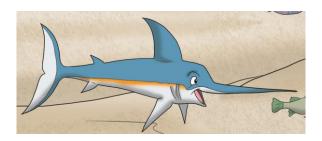
 Tell participants how they can identify a sawfish (long and wide toothed saw on their head, 5 gill slits <u>under</u> their head, and flattened shark-like body). Then have participants point to the hidden sawfish. This can be difficult as there are many fish that look like the sawfish including the sawshark, swordfish, gar, and paddlefish.



- 2. If a participant points to a fish other than the sawfish explain what type of fish they found and explain what the difference is between that fish and a sawfish
 - a. **Sawsharks** are a type of shark with a saw similar to a sawfish but with long barbels (look like big whiskers) halfway down their saw, 5 gill slits on the <u>side</u> of their head, and are smaller in size when full grown. Sawsharks live in the ocean.



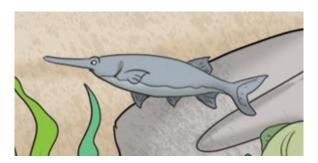
b. **Swordfish** and other billfish are large bony fishes with a long, skinny, and toothless sword and 1 gill slit on each <u>side</u> of their head. Swordfish and other billfish live in the ocean.







c. Paddlefish are large, ancient fishes with a long, wide, and toothless paddle on their head, 1 gill slit on each side of their head, and a large gaping mouth (when its open). Paddlefish live in freshwater rivers.



d. Gar are bony fishes with a slender body and a long, narrow mouth with sharp teeth, and 1 gill slit on each side of their head. Different species of gar can be found in freshwater rivers and lakes and/or estuaries and bays.

