

Grades 6 – 8: Ocean Conservation

CONSERVATION refers to the protection of animals, fungi, plants and their habitats, and the protection and management of the biodiversity of our planet. According to the Environmental Protection Agency “there are approximately 1,300 endangered or threatened species in the United States today. Endangered species are those plants and animals that have become so rare they are in danger of becoming extinct. Threatened species are plants and animals that are likely to become endangered within the foreseeable future throughout all or a significant portion of its range.” An extinct species is one that no longer exists. An invasive species is an animal or plant that has been introduced into a habitat, either accidentally or on purpose, and causes environmental harm or affects human use of natural resources.

Zone A – Caribbean Currents and Ocean Realm

Hard Case – Diamondback terrapins are the only brackish water turtles in the US and can be found living along saltwater marshlands in New Jersey and along the East Coast. Once near extinction, this species was considered a delicacy. Today, they are often caught in crab traps and drown or female terrapins are hit by cars as they cross roads to lay their eggs. Although many of these females are killed every year, their bodies can still contain viable eggs.

- Why do you think the eggs are able to be saved?
- Do you think all of the eggs that are rescued will hatch?
- How else do you think people can help the terrapins?

Ocean Realm – Of the seven species of sea turtles that live in our oceans, all of them are listed as either “Threatened” or “Endangered.” Sea turtles face a variety of threats in the wild, including destruction of the beaches where they lay their eggs. Some

turtles mistake plastic bags and balloons for food items like jellyfish. Artificial lighting also causes hatchling turtles to mistake house lights for the light of the moon, thus getting confused and traveling away from the safety of the ocean.

- What is something people can do to help baby turtles find their way to the ocean?
- Why is something like a fishing net or line a hazard for animals like sea turtles?

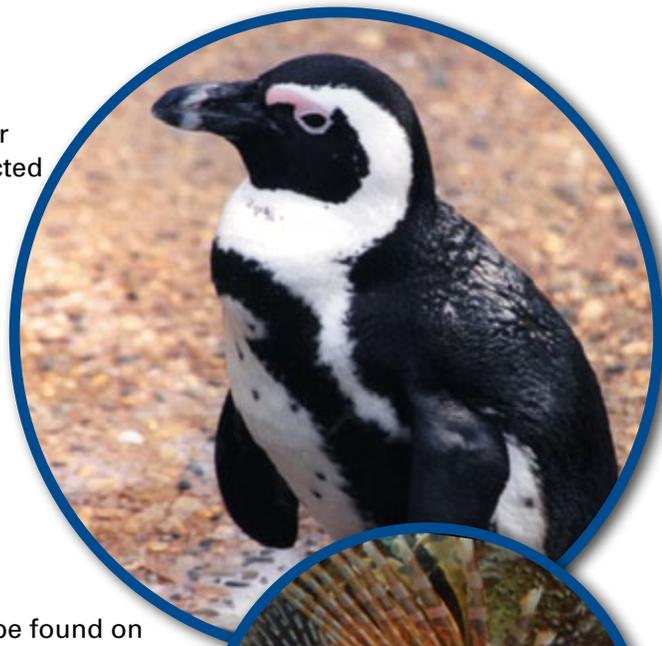


For the full “Ocean Conservation” Exhibit Companion, visit Educator Inlet at AdventureAquarium.com

Zone B – Penguin Island

There are 17 species of penguin, and 13 of them are listed as either “Endangered” or “Threatened”. All species of penguins are protected from hunting and egg collecting. However, there are other factors that cause penguins to remain on the endangered list. These include oil spills, pollution, habitat destruction, overfishing, and careless boating.

- African penguins are in trouble because people collect their guano, or poop. Why do you think this is a problem for the penguins, and why do you think people would want the penguin waste in the first place?
- Why do you think overfishing is a cause of a decrease in the penguin population?



Zone C – KidZone

Lionfish – Lionfish are native to Indo-Pacific waters and can often be found on reefs or on the fringes of reefs and rocky lagoons. They are an example of an invasive species. Thought to be accidentally introduced in the waters off the East Coast of the United States in the late 1980’s-early 1990’s, lionfish reproduce quickly. They have few predators, and are very aggressive.

- What are some of the ways you think the lionfish was introduced into the waters off the East Coast?
- Do you think it is possible for people to remove all of the lionfish from their non-native habitat?



Bangaii Cardinalfish – The Bangaii cardinalfish is a small, shallow-water reef fish found in only one area of the world, in a very limited area of Indonesia. Unfortunately, their small population is being over-exploited. The fish are easy to catch, are slow to reproduce and are being collected faster than they can replenish the population.

- Do you think that a large number of Bangaii cardinalfish that are collected in Indonesia survive the trip to pet stores in the United States?
- Do you think a small fish like the Bangaii cardinalfish is important enough to be saved?

Zone D – West African River Experience and Shark Realm

Sand Tiger Shark – Sand tiger sharks are listed as vulnerable by the IUCN. Their population has reduced over 20 percent in the past 10 years. Their decline is due to many factors, including shark finning, collection for shark liver oil, and being caught in fishermen’s nets. Some sharks are caught in nets that are put out in Northern Australia to protect swimmers from sharks, while still others are caught by fishing trawls and fishing line.

Sand tiger sharks are slow to reproduce, with females producing only 2 pups every 2 years.

- How do you think the Sand tiger shark’s slow reproduction contributes to their decline?
- Because they are slow to reproduce, they cannot keep up with the pressures placed on their population. People are killing the sharks faster than they can repopulate.

