

Bald Eagle Exhibit



Bald eagles are large raptors, or birds of prey. Birds of prey refers to birds that are carnivores (consume meat). Bald eagles feed on fish, birds, rabbits and other small mammals. Other birds of prey include hawks, owls and falcons. Bald eagles are known for their white feathered heads and symbolism to our country. Bald eagles typically weigh between 8–15 pounds and grow up to 37 inches (3 feet) tall with a wing span of up to 7.5 feet. They are great hunters that can locate their prey from three miles away. As they swoop down to capture their prey, they grab it with their powerful talons (feet).

Bald eagle skull

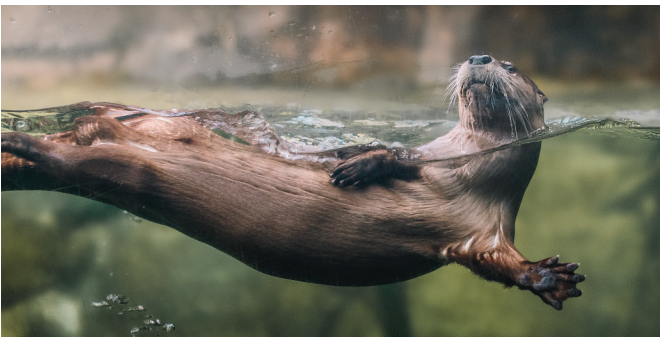
Point out the position of the eyes to the students. The eyes face and help this predator to hunt. Have the students look at the beak. Bald eagles have curved beaks for ripping apart their prey. Ask them if they can locate where the brain would be.

Bald eagle talon

Point out the sharp points. Mention how powerful their feet are in squeezing their prey.

Liberty is our American bald eagle. She was found with an injury to her left wing that we believe occurred when she flew into a power line. Because of this injury, she underwent a partial wing amputation. Now, Liberty is unable to fly, and therefore cannot hunt. She is well taken care of at the Aquarium and has her very own tree, mini pond and gets free fish every day!

Mountain Forest (River Otters)



River otters are aquatic mammals. They live in fresh-water (and on occasion, brackish water), and can be found throughout the state of South Carolina in rivers and tidal creeks. They do not live in the ocean, unlike the sea otters you typically see in the Pacific. River otters have thick fur to help them survive in the cold water of the upstate rivers. They use their webbed feet and strong tail to swim quickly and catch their prey. They predominantly feed on fish, but will also eat salamanders, frogs, mice, rabbits, turtles and bird eggs. They can grow up to 4 feet long and weigh as much as 23 pounds.

River otter fur

Scientists estimate that otters have 380,000 hairs per square inch. There is more hair in one square inch on an otter than we have on our whole body. This thick layer helps regulate their body temperature in cold water.

Webbed glove

Have students put on webbed glove. Ask them to move their arm up and down to feel the resistance. Explain how this allows otters to swim fast. Ask them to be on the lookout during the rest of the tour to see if any other animals have webbed feet (Examples: alligators, freshwater turtles and ducks).

Our two resident otters, Charlie and Beau, came to the Aquarium as pups from Potter Park Zoo in Lansing, Michigan back in January 2021.



South Carolina is made up of six geographic land regions (Blue Ridge Mountains, Piedmont, Sandhills, Inner Coastal Plain, Outer Coastal Plain and the Coast). Piedmont stands for “foot of the mountains” and the rolling hills connect the mountains to the flatter parts of South Carolina. It is known for its red clay sediment.

Red clay sediment

Show this to the students and have them look around the Piedmont Gallery to see the color of the sediment (brown walls) in the exhibits. Have them look at the Brownwater Swamp Exhibit in the Coastal Plain Gallery. Explain that the color of the water comes from the red clay washing down from the Piedmont region.

Coastal Plain (Longnose Gar Exhibit)



Longnose gar are very primitive fish that can be found in the fossil record since the time of the dinosaurs. They live throughout the eastern United States in slow-moving freshwater. While their diet can vary by region, they typically feed on fish, frogs and crayfish. Longnose gar have many adaptations that have helped them to survive as long as they have, ranging from their long, slender body to their thick, armored scales.

Countershading toy

Ask students to look at the lighter underside (ventral side) of the toy and the longnose gar in comparison to the darker top side (dorsal side).

Coastal Plain (Carolina Bay Exhibit)



A Carolina bay is a type of wetland habitat that has very low nutrients in the soil. This makes it the perfect habitat for carnivorous plants, such as pitcher plants and the Venus flytrap. Along with the carnivorous plants, you can also find the smallest flowering plant in South Carolina, the duckweed. It can be found floating on the surface of the water.

Magnifying glasses

Give students magnifying glasses so they can get a closer look at the plants. Ask them if they can find the following parts of the plants: roots, stems and leaves. Ask them if they can spot the duckweed.

Coastal Plain (Longleaf Pine Exhibit)



South Carolina is home to 38 different species of snakes. Of those 38 species, six of them are venomous: diamondback rattlesnake, timber rattlesnake, pygmy rattlesnake, copperhead, cottonmouth and coral. In most cases, venomous snakes have triangular-shaped heads in which they store their venom and larger fangs. The coral snake, however, has an oval-shaped head. Thankfully, a coral snake's color pattern helps determine the fact that it is venomous. ("Red on black, friend of jack. Red on yellow, kill a fellow."). These generalizations only

apply to snakes found in North America. All snakes are important to the environment as they control rodent populations. Snakes have vertebrae that make up a long flexible skeleton. A rattlesnake adds a new section to its rattle every time it sheds. However, we cannot easily determine the age of a snake based on their rattle, as it may or may not break off during the shedding process.

Snake skeleton

Use this to show the students that snakes have bones. Their bones are small and flexible to accommodate for their unique movement, known as slithering.

Snake shed

Allow students to gently touch the snake shed. Remind them that snakes shed to grow. Snakes even shed the skin that covers their eyes. You can tell a snake is about to shed when their eyes are a milky color instead of clear.

Rattlesnake rattle

Rattlesnakes create a new section to their rattle every time they shed. Part or all of the rattle can fall off.

Saltmarsh Aviary



The saltmarsh is one of the most productive and diverse habitats of South Carolina. Spartina grass is the dominant plant of this habitat, as it can grow well in saltwater. When the spartina grass dies in the winter, it becomes food and shelter for many animals. As it decomposes, it settles into the ground, eventually making pluff mud. Pluff mud is the cause of the distinctive smell of the saltmarsh and is a vital component of the environment. It provides stability for oysters and grasses to grow and serves as a food source for snails, worms and more.

Oyster shell

Allow students to hold the oyster shells and feel the ridges and rough spots along the surface that allow these invertebrates to live stably in the saltmarsh environment.

All the birds of the saltmarsh live at the Aquarium because they cannot survive in the wild. They either have eye, wing, feet or beak injuries, making it impossible for them to survive without human care.

Coast (Camouflage Exhibit)



The octopus is known as one of the most intelligent invertebrates. It can change color and texture in an effort to blend into its environment by using specialized cells (iridophores, chromatophores and papillae). Though they are members of the Mollusk group, they do not have a shell like other mollusks (snails, oysters, clams and squid). Their mouth, called a beak, is the only hard part of their entire body. They can maneuver through any small place as long as their beak can fit.

Octopus beak

Show the students the octopus beak. Explain how they are able to get through any space that the beak can fit through.

Octopus anatomy

Show students the octopus anatomy picture. Point out the beak as it relates to other parts of the body.

Stress ball

As students squeeze this ball, they will notice how the color inside becomes brighter or more obscured. This is similar to the way chromatophores work to camouflage an octopus.

If you don't see an octopus on exhibit, there is a reason. The common octopus life span is only 1–2 years. Because of this, we don't always have one on exhibit.

Ocean (Great Ocean Tank Exhibit)



The Aquarium's Great Ocean Tank was designed to allow fish of all sizes and swimming speeds to harmoniously live together. The two-floor window area with the large reef structure is a habitat within the tank that allows the small and medium-sized fish to live within a protected environment. The open water portion of the exhibit (seen from the second-floor window and the slanted window on the first floor) is perfect for the larger and faster swimming fish. Slow swimming fish have a triangular

or rounded tail (caudal) fin. Fast swimming fish have a fork shaped tail fin. Slow swimming fish have an easier time maneuvering, or turning, because of the shape of their tail.

Stuffed animal fish

Show the students the two stuffed fish. Ask them if they know which fish is a slow swimmer and which fish is a fast swimmer by examining their tails. Explain the differences between the tails. Have the students point out a fast swimming fish and a slow swimming fish in the Great Ocean Tank by looking at their fin shapes.

Ocean (Great Ocean Tank Exhibit)



Sharks are cartilaginous fish, meaning their skeleton is comprised of cartilage rather than bones. Because of this trait, they are closely related to stingrays and skates. There are over 400 species of sharks in the world, and 40 of them are found in South Carolina's waters. Sharks have a very unique composition – their skin is similar in touch to sandpaper, their bodies are streamlined, they have multiple rows of teeth in their mouth, and they even have an extra 6th sense (electrical). A shark's size can range from 8 inches (in the case of the dwarf lantern shark) to upwards of 40 feet (such as the whale shark).

Shark jaw

Let the students examine the jaw up close so they can see the multiple rows of teeth. Explain how sharks can lose one tooth and another one takes its place (like the alligator they learned about earlier). Sharks are also top predators and need their teeth for survival.

Shark tooth

Explain to the students how this fossil is from a Megalodon shark. Though they are extinct today, megalodons are thought to be similar to the current great white shark. Because of the size of the teeth discovered, scientists estimate megalodons could have been 60 feet in length.

Sandpaper

Allow students to feel this scrap of sandpaper and explain that this is similar to how a shark's skin feels.



There are seven species of sea turtles in the world. Four of those are found in South Carolina's waters – loggerhead, green, Kemp's ridley and leatherback. The most common species is the loggerhead sea turtle, which is also the state reptile of South Carolina. Sea turtles face many problems in the sea and the Aquarium's exhibit allows visitors to learn about how we rescue, rehabilitate and release sea turtles back into the wild. #protectwhatyoulove

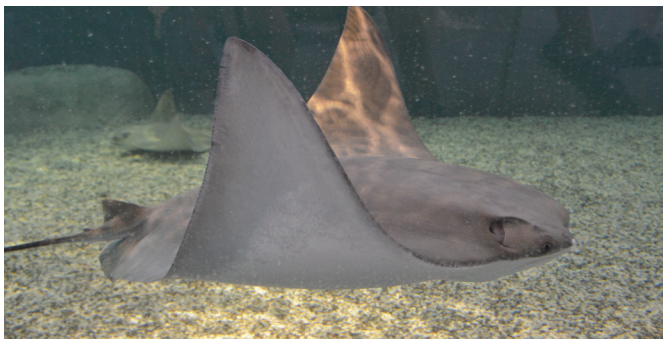
Loggerhead skull

Show students the large size of the loggerhead skull. They eat hard-bodied animals, such as crabs and snails, as well as jellies and fish. Have them look at the brain cavity, and point out the size being similar to that of a walnut. Explain how this makes it difficult for turtles to tell the difference between trash and food.

Plastic bag in a jar and jelly picture

Ask students what is in the jar. Point out how much the plastic bag looks like a jelly and show them the picture of a jelly. Meet the turtles on exhibit and see if any of them are receiving care because they ingested plastic. One way to help sea turtles is by not littering, but ask the students what else they can do to reduce "one time use" plastic (Examples: Bringing a canvas bag when shopping, using reusable cups and utensils and eliminating straw usage).

The Shallows



Stingrays are also cartilaginous fish and are closely related to sharks. There are about 220 species of stingrays in the world. Most stingrays have barbs (stingers), but not all species do. The barb is only used for defense, not as a way of hunting. Though many people believe the barb is located at the end of the tail, it is actually located on the top towards the base. A stingray's barb can grow to 14 inches, but most species' barbs do not reach this length. Barbs have jagged edges, helpful in inflicting damage to a predator. Barbs can fall off but grow back over time.

Stingray barb

Show students the jagged edges on the barb. Ask them for examples of other items that have jagged edges (such as a knife). Have students try and find where the barbs are on the Aquarium's stingrays. Though we trim the barbs of our stingrays for safety, you can still determine where it would be located with the help of an Educator.
