

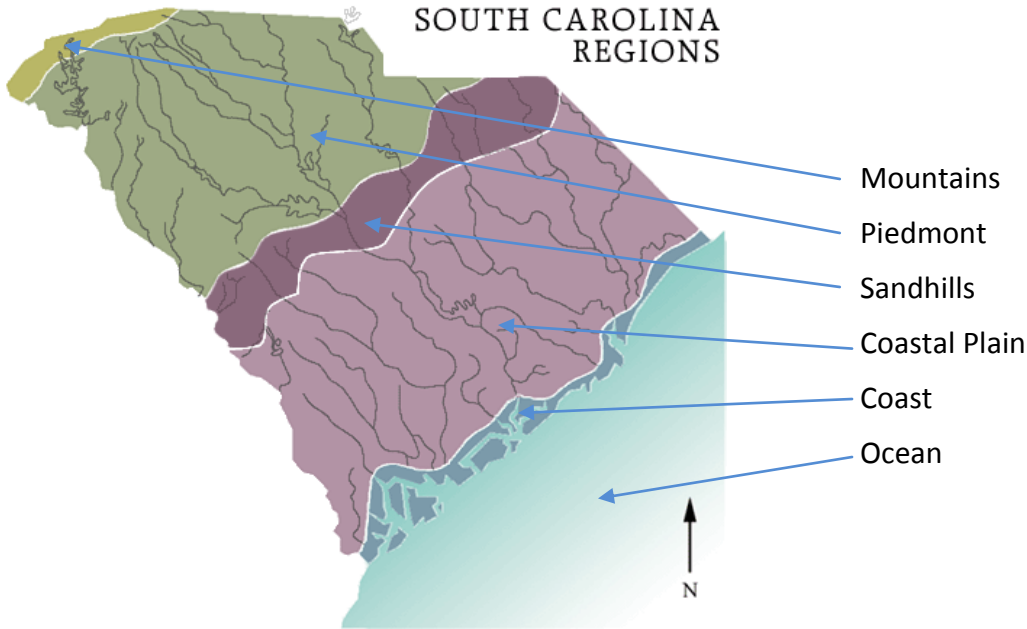
South Carolina Aquarium

6th – 8th Grade Scavenger Hunt

Name _____

The South Carolina Aquarium is designed to show you the habitats of South Carolina from the Mountains to the Sea. Enjoy your journey through our state!

The Great Hall



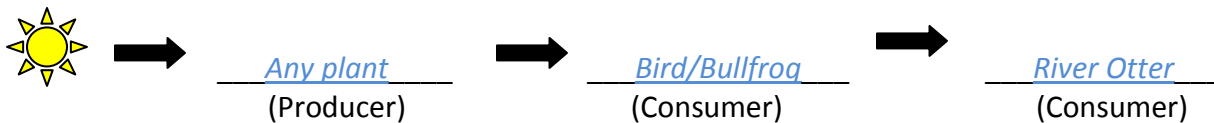
Draw a line from the name of each South Carolina region to the region's location on the map above. What is the name of the ocean that borders South Carolina?

The Atlantic Ocean.

The Mountains

Mountain Forest exhibit:

Create a mountain food chain using the animals you see in the Mountain Forest exhibit.



Circle the word in each pair that best describes a mountain stream.

Fast-moving or Slow-moving

Hot or Cold

Oxygen-rich or Oxygen-poor

How do the stream characteristics that you circled influence what animals can be found in the mountains?

The animals must be adapted to live in fast currents, cold temperatures and oxygen rich water.

Piedmont

The clay soil found in the Piedmont region is almost impermeable to water (meaning that water does not readily pass through the clay). How does this effect run-off in the region?

Red clay soil increases runoff because the water doesn't soak into the ground easily.

Why are Piedmont rivers often red?

The sediment in the Piedmont region is red so when it rains this red clay soil runs off into the rivers.

Reservoir exhibit:

Name 1 pro and 1 con of damming a river.

Pro: *Flood control, fishing, boating, recreation, irrigation*

Con: *Disturbs river flow and animal migration, habitat destruction, changes landscape*

Shifting Shorelines map:

How does the rotating map help explain how marine fossils can be found in the Coastal Plain while terrestrial fossils can be found 20 miles off the coast?

The map shows how over history the shoreline has moved because of climate change. A changing shoreline is going to change the animals that live in that area. Land once covered by water will leave behind aquatic animal fossils where as land cover by water that was once not covered by water would leave behind land animal fossils.

Coastal Plain

Brownwater Swamp and Blackwater Swamp exhibits:

What makes a Brownwater Swamp brown?	What makes a Blackwater Swamp black?
<i>Red clay sediment from the Piedmont being carried by rain water into the Coastal Plain swamps during the rainy season.</i>	<i>Tannins from tree leaves stain the water a darker color. The tannic acid from the leaves leech into the water as leaves fall in the swamps.</i>

List 2 reasons why swamps are vital ecosystems in South Carolina.

- Great habitat for animals and plants.*
- Filters water to help get rid of pollutants*
- Helps control flooding.*

Carolina Bay exhibit:

Describe a Carolina Bay habitat.

A Carolina Bay is an elliptical shaped wetland habitat. Not sure how they were formed, but most likely created by prevailing winds. Named after the Carolina Bay trees that can be found there.

Why are carnivorous plants found in Carolina Bays and no other habitat in South Carolina?

Carnivorous plants live in areas where the nutrient level in the soil is low. These plants get nutrients by digesting insects.

Saltmarsh

Where does a saltmarsh habitat get its nutrients (circle your answer)? Land Sea Land and sea

Name 2 functions of a saltmarsh.

- Nursery for juvenile fish, shrimp, crabs and other animals. Great place for juveniles to hide and get food.*
- Protective barrier between the ocean and the land. Protects houses, businesses and habitats.*
- Filters water to keep the water quality good for animals and plants.*
- Great food supply for animals.*

What would happen to South Carolina's coast if our saltmarshes were destroyed?

The coastline would not be protected during hurricanes and storms, causing habitat destruction.

Use the given terms and match them to each description (each letter may be used more than once).

- | | | | |
|---|--|----------|---|
| A | Population – a group of organisms that can breed with one another (all the same species in an area) | <u>A</u> | All the pinfish |
| B | Community – all the organisms that inhabit a particular area | <u>D</u> | Spartina grass is a producer |
| C | Ecosystem – all the living and non-living things in a particular area | <u>C</u> | All the plants and animals in the saltmarsh, plus the pluff mud and water |
| D | Niche – the role an organism plays in an ecosystem | <u>D</u> | Great blue heron is a consumer |
| E | Not found in a saltmarsh | <u>A</u> | All of the blue crabs |
| | | <u>E</u> | All of the longnose gar |
| | | <u>B</u> | All the plants and animals in the saltmarsh |
| | | <u>D</u> | Diamondback terrapin is an omnivore |
| | | <u>E</u> | Brook trout is a consumer |

Coast

Surf Zone exhibit:

What is the surf zone?

Inshore area also known as the sandy shallows. The temperature fluctuates more in this shallow area and the water can be rougher as waves crash into the shore.

What special adaptation do animals need in order to live in the surf zone?

Need to be able to withstand temperature changes and handle rough water by hiding in the sand or riding through the waves.

Sea Turtle exhibit:

Loggerhead sea turtles are South Carolina's state reptile. What are 2 characteristics of a reptile?

Reptiles are cold blooded, lay eggs, have dry scaly skin and breathe with lungs.

The sex of a sea turtle (whether it's male or female) is determined by the temperature of the nest (> 86° F means more females, < 82° F means more males). Because of this, how can climate change affect sea turtles?

If the temperature rises, more female sea turtles will be born and over time this could skew the sex ratio and populations could be greatly affected (can't find a mate because too many females and not enough males).

Ocean

Look at the map of the 4 major watersheds in South Carolina.

What is a watershed?

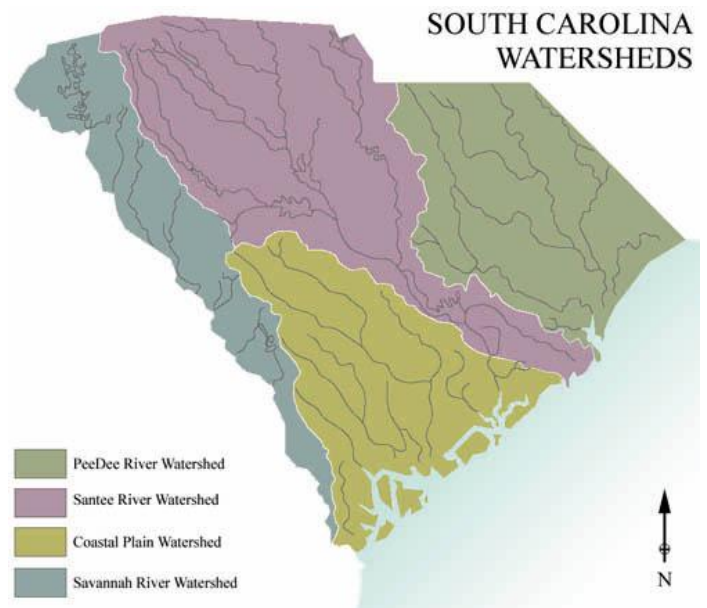
A watershed is an area of land where rain water drains into rivers and eventually empties into the ocean.

Name 2 things people do in the upstate that can harm the ocean ecosystem.

- Pollute*
- Not pick up dog poop*
- Dump oil/gas onto ground*
- Leave behind fishing gear*

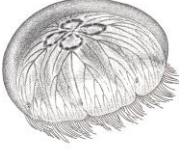
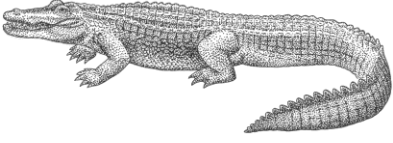

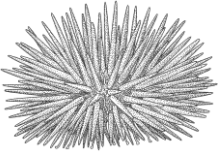
Why can people that live in the Mountains, Piedmont and Coastal Plain regions of South Carolina affect the Ocean ecosystem?

Because water follows the laws of gravity and moves from high elevation to lower elevation and for South Carolina that is from the Mountains to the Sea.



All Galleries

Name the phylum and the Aquarium exhibit in which the animal can be found beside each picture below.

	Phylum	Aquarium exhibit
 Moon jelly	<i>Phylum Cnidaria</i>	<i>Moon Jelly exhibit</i>
 American Alligator	<i>Phylum Chordata</i>	<i>Freshwater Marsh exhibit</i>
 Blue Crab	<i>Phylum Arthropoda</i>	<i>Salt Marsh exhibit</i>
 Sea Urchin	<i>Phylum Echinodermata</i>	<i>Touch Tank exhibit</i>

Phylum Chordata – animals with a backbone

Phylum Porifera – have pores, filter feeders

Phylum Cnidaria – tentacles, stinging cells

Phylum Mollusca – soft muscular foot, hard shell

Phylum Echinodermata – spiny or bumpy skin, water vascular system

Phylum Arthropoda – jointed appendages, eyes, exoskeleton

Wrap-up

Now that you have travelled through the state of South Carolina, list 3 things you can do to protect South Carolina habitats and the animals that live there.

1. *Recycle*
2. *Don't litter*
3. *Eat sustainable seafood*
4. *Use canvas bags instead of plastic*
5. *Join a conservation organization*
6. *Turn off beach front lights (May-Oct.)*