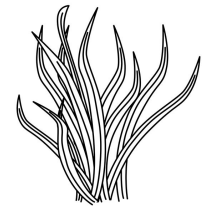
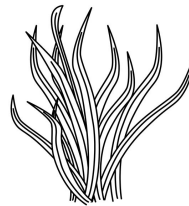
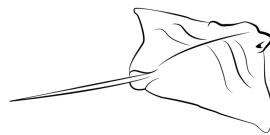
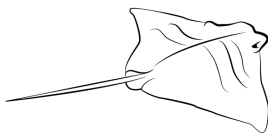
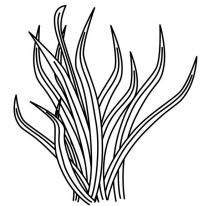
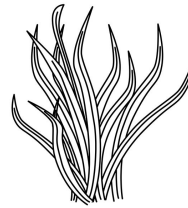
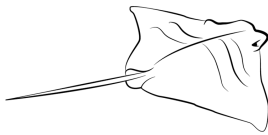
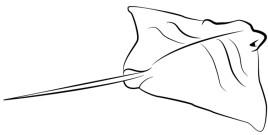
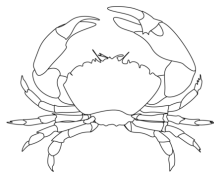
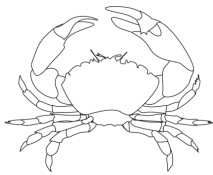
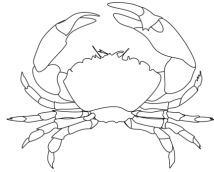
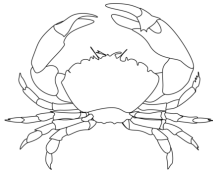


Skates and Rays Habitat



2/1/2

Cut out each of the animals. Place each animal where it lives on the map. Color the area along the coast where cownose rays live.



Directions: Read the question. Think about how a warmer environment affects the organism the question is about; then move, add, or remove the creature on the map to reflect the change in environment. After that, answer the question! (Answers are provided on the following page)

What happens to seagrass beds as the water gets warmer?

What happens to cownose rays when seagrasses die?

Where do cownose Rays go if the water gets warmer?

Will the crabs migrate if the water gets warmer?

What happens to the oysters and clams when the water gets warmer?

What do you think the environment will be like if climate change continues?

Answer sheet

What happens to seagrass beds as the water gets warmer?

Seagrass is very sensitive to temperature changes. As temperatures increase, seagrass coverage will decrease, eventually leaving a bare seafloor with no cover and low oxygen levels.

What happens to cownose rays when seagrasses die?

They lose a source of camouflage and are more easily seen by predators. This is especially dangerous for juvenile rays that are spawned in the bay.

Where do Cownose Rays go if the water gets warmer?

They can migrate north to move into cooler water. They can be found as far north as Maine when the waters are warm enough. As ocean warming continues, it is possible they will bypass the bay completely to move to cooler waters around New England, a new environment that may pose new challenges to schools of rays looking to mate.

Will the crabs migrate if the water gets warmer?

Crabs do not have to move because they will survive in warmer water. Crabs are hardier organisms that thrive in many conditions. In a recent study conducted by VIMS, it was discovered that crabs can survive oxygen levels as low as 15% when the water is a moderate temperature! Climate change can still threaten them, however; their oxygen consumption gets higher the warmer the water is.

What happens to the oysters and clams when the water gets warmer?

They will die because they are not suited to warmer water conditions. Bivalves are very sensitive to changes in water conditions and their populations can decrease because of increased sediment, acidity, and temperature.