



MARINE ESTUARIES BIOME

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WHAT IS OUR BIOME?

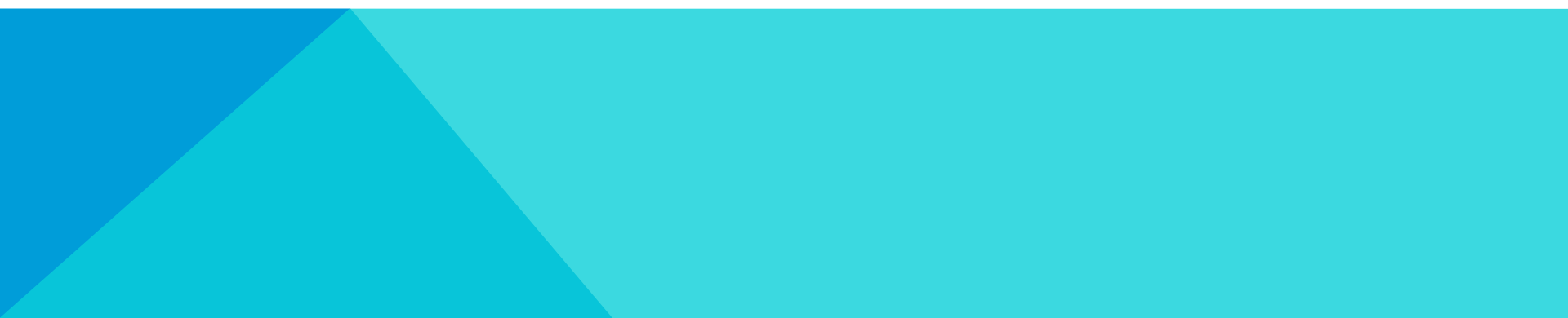
Our biome is marine estuaries. Our biome deals with the ocean, streams, rivers, lakes, ponds and any other natural waterways.



ZOOLOGIST



WHAT ARE FOUR ANIMALS AND THEIR ADAPTATIONS?

- Cottonmouth: venom to protect itself
 - Crabs: hard shell and pinchers that can defend of predators
 - Shellfish: have hard shells that protect them from predators
 - Turtle: have hard shells to hide themselves
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HOW ARE THESE ANIMALS DIFFERENT THAN NEIGHBORHOOD ANIMALS?

- They are different than neighborhood animals because they use water to breath and most animals in neighborhoods just drink the water.
- Neighborhoods don't have a ocean or the right characteristics to hold these animals.

HOW ARE THE ANIMALS IN THE BIOME IMPORTANT TO HUMANS?

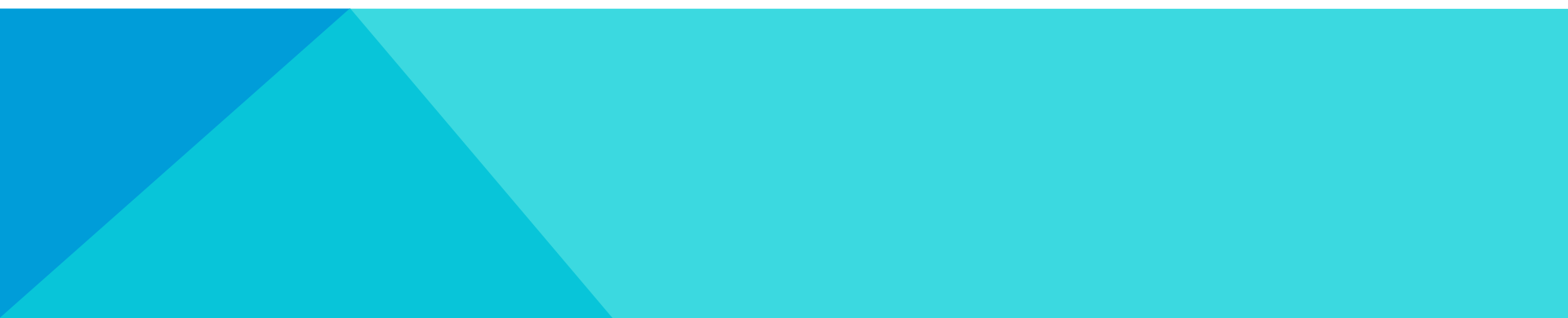
These animals are important because we can eat them and they keep the balance between prey and predators these and they are important to us because they can be used to make medicine.



BOTANIST



WHAT ARE THE DIFFERENT TYPES OF PLANT AND THEIR ADAPTATIONS

- **Seaweed:** gelatinous polyamide to retain water. (film kind of feeling).
 - **Kelp:** withstand ocean currents so roots hold faster and it adapts to digging deep into rocks.
 - **Algae:** Camouflage help to not attract predators.
 - **Plankton:** Floating because of the soft tissue is lighter , and they migrate.
 - **Sea grass:** Adapts to being able to be in all of the salt water ,because most plants can't take salt water.
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HOW ARE THESE PLANTS DIFFERENT THAN NEIGHBORHOOD PLANTS?

These plants are different because of their adaptations they can't survive in a neighborhood. These are ocean plants and need the ocean to survive. Sea grass need the salt in the water to help it grow. Plankton need the salt water to float. Algae need it for the ocean color to help become camouflage. Kelp need it to move around to get under rocks. Sea weed use it to get that film to make it silky.



HOW ARE THESE IMPORTANT TO HUMANS?

These plants are important to humans because some of these plants like seaweed are made into food. Seaweed is made into sushi dishes. Sea grass is important to the marine eco system from productivity level. Algae help form the base of the marine food chain. Plankton help support recreational and commercial fisheries. Kelp help make toothpastes, shampoos, salad dressings, puddings, cakes, dairy products, frozen foods, and even pharmaceuticals.

METEOROLOGIST



WHAT IS THE WEATHER LIKE IN MARINE?

There are three layers of the ocean. There is the surface zone which is the top layer and is the warmest. There's the thermocline which has a medium temperature and is the middle layer. The bottom layer is the deep zone that is the coldest and is at the bottom of the ocean.



HOW DOES THE WEATHER DETERMINE WHAT KINDS OF ORGANISMS LIVE IN THE ENVIRONMENT?

- The climate can affect the way animals live
- Tropical storms or heavy rain can affect the coral reefs and damage other plants and cause animals to move.
- Rising temperatures can make species have to around to not damage themselves.



WHAT ARE SOME WEATHER THREATS THE POSE FOR THE BIOME ?

Weather threats can ...

- Ruin coral reefs
- Harm animals
- Cause animals to leave
- Harm the ecosystem
- Unbalance the food chain
- Make currents stronger

HOW IS THE WEATHER DIFFERENT THAN NEIGHBORHOOD WEATHER?

Mostly, the weather in the marine areas is either warm (southern areas) or its cold (northern areas). In our neighborhoods, the weather is mild warm in the summer and cold in the winter. Also, we don't get hit by hurricanes , and if we did in our area we would only get a little rain with dark clouds. They can get tsunamis and we can't in our area.



GEOLOGIST/
SOCIOLOGIST



WHAT ARE MAJOR CHARACTERISTICS?

- Abiotic and biotic factors.
- Plants and animals on different sizes
- Plankton form the base of the oceans food chains.
- Temperature decreases as depth is decrease

WHERE ARE THEY LOCATED?

- They are located in oceans, rivers, lakes, ponds, streams and any natural waterways.



DO PEOPLE LIVE IN THIS BIOME?

No people live in this biome. We can't survive in the ocean or a river lake because we can't breath underwater. We can't survive in the water.



HOW WOULD A PERSON SURVIVE ?

- They would need to wear scuba suit and have a mask and oxygen. Eventually they would adapt to the water and be able to survive.



HOW ARE THEY DIFFERENT FROM THE NEIGHBORHOOD?

In neighborhoods we don't have things like oceans. A lot of neighborhoods have little streams and ponds.



WHAT KIND OF THREATS CAN AFFECT THIS BIOME?

If people pollute the water than fish can die and than we can also be affected. We can be affected by eating the fish. Also if people just leave trash on the beach than an animal might get into it or it can be pulled into the water.

