



Lesson 3: Aquatic Ecosystems

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**An aquatic ecosystem is any type
of water ecosystem.**

**The aquatic biome is our largest biome,
covering about three fourths of Earth's surface.**



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There are many individual types of aquatic ecosystems, but they can all be grouped into two categories: fresh water and marine.

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Discovery Education Video:

[The Aquatic Biome:
Marine and Freshwater
Environments](#)

The plants, animals, and climate of the aquatic biome are presented.



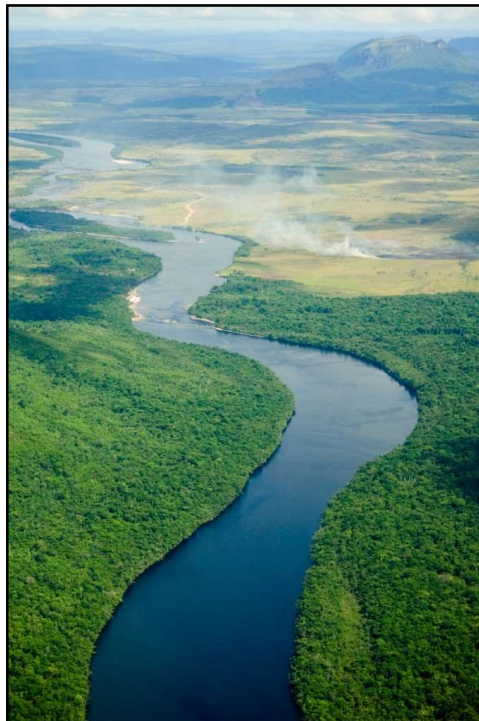
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Freshwater aquatic ecosystems contain water that is not salty, such as water found in streams or lakes.

Of all the water on Earth, freshwater makes up only about 2.8 percent.



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Types of freshwater ecosystems include:

- **Lakes**
- **Ponds**
- **Rivers**
- **Swamps**
- **Springs**
- **Wetlands**
- **Bogs**

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Plant and animal life in freshwater ecosystems is as varied as the many freshwater environments. A few examples include turtles, frogs, alligators, river otters, and many types of freshwater fish.

7

Discovery Education Video:

Freshwater Wetlands:
Forested Wetlands

Forested wetlands can be found throughout North America. These ecosystems are home to a variety of plants and animals. Some forested wetlands, the long leaf pine forest, are becoming more scarce as are the animals that live there.

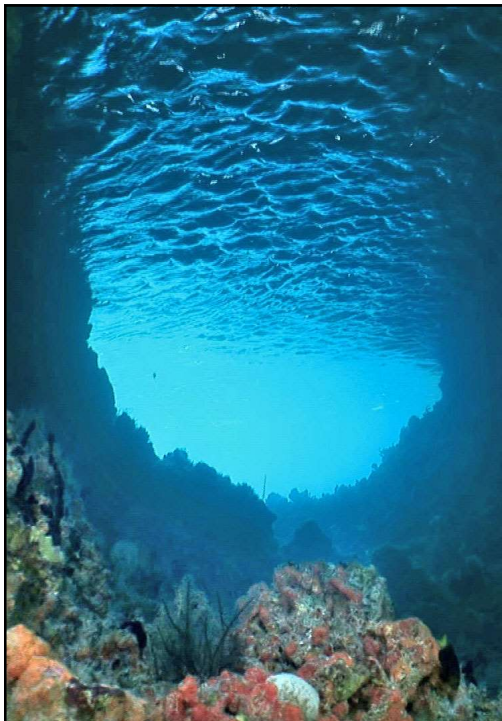


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Marine aquatic ecosystems are salt water ecosystems – water containing dissolved minerals giving it a salty taste.



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Types of marine ecosystems include:

- **Coastal Waters**
- **Coral Reefs**
- **Continental Shelves**
- **Vent Communities**
- **Open Oceans**
- **Polar Oceans**

10



In marine ecosystems, the types of plant and animal life is varied based on water temperature and depth.

Seaweeds, kelp, and phytoplankton make up most of the marine plant life, while animals range from microscopic zooplankton to massive whales and large fish.

11

Discovery Education Video:

[Biomes: Marine](#)

Marine biomes cover nearly 71 percent of Earth's surface and include diverse life in the four types of marine biomes, called coastal waters, coral reefs, open ocean, and vent communities.



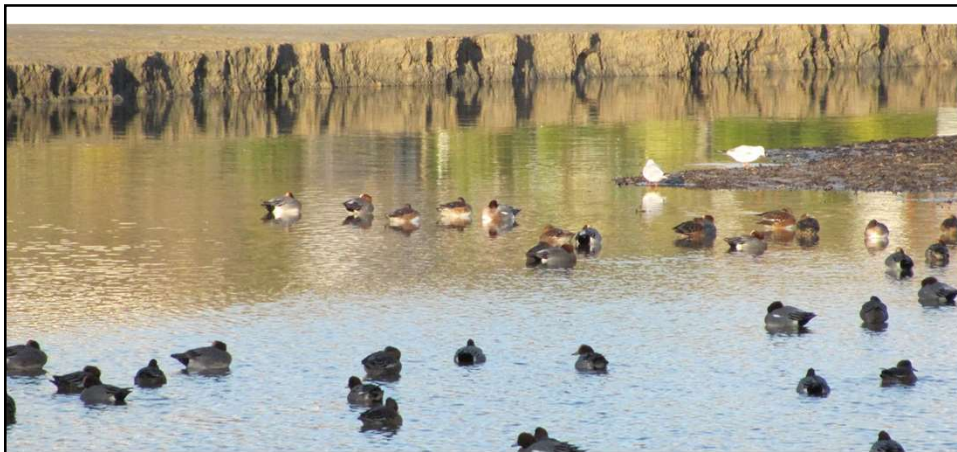
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Certain types of marine ecosystems contain brackish water – a mix of fresh and salt water.

Estuaries and lagoons are examples of this type of ecosystem.

13



Because the brackish waters of these ecosystems combine fresh and salt water, they can often support greater biodiversity than a normal freshwater or marine ecosystem.

14

Discovery Education Video:

What Are Estuaries?

An estuary is a body of water where fresh water from inland rivers and streams mixes with salt water flowing in from the ocean. They provide places for plants and animals to live, nurseries for marine animals, natural water filtration, buffers from the ocean, food, and places for recreation and learning. Usually located at the mouths of rivers, estuaries are created where old river valleys are flooded by the ocean.



15

Aquatic Ecosystems: Key Questions

1. What is the difference between a terrestrial and an aquatic ecosystem?
2. Compare and contrast the biotic and abiotic factors of freshwater and marine ecosystems.
3. What makes an estuary unique from most aquatic ecosystems?

16