

# Aquatic Ecosystems Notes

## Daily Objectives

- What factors affect aquatic ecosystems?
- What are the distinct ocean zones that make up marine ecosystems and what characteristics do they have?

## Limiting Factors

- The limiting factors in water biomes are:
  - Amount of salt ( \_\_\_\_\_ )
  - Amount of dissolved \_\_\_\_\_
  - \_\_\_\_\_

## 2 Types of Water Biomes

- \_\_\_\_\_
  - Rivers and streams
  - Lakes and ponds
- \_\_\_\_\_
  - Oceans
  - \_\_\_\_\_
  - Seashore (tidal areas)

## Freshwater Ecosystems

Freshwater contains little or no salt, so it has a low \_\_\_\_\_.

- Flowing freshwater = \_\_\_\_\_
- Standing freshwater = \_\_\_\_\_

## Streams

- The \_\_\_\_\_ a stream flows the \_\_\_\_\_ the amount of \_\_\_\_\_ in it.
- The fish that live in streams are \_\_\_\_\_ to fast moving water.

## Rivers

- Water moves \_\_\_\_\_ in a river and \_\_\_\_\_ settles on the bottom.
- Because of this, rivers tend to have \_\_\_\_\_ and \_\_\_\_\_.

## Ponds

- \_\_\_\_\_, \_\_\_\_\_ bodies of water.
- Sunlight penetrates \_\_\_\_\_ to the bottom.
- Most are \_\_\_\_\_ with plant material.
- Very \_\_\_\_\_ amount of \_\_\_\_\_.



**Lakes**

- \_\_\_\_\_ and \_\_\_\_\_ than ponds
- Plant growth is limited to the \_\_\_\_\_.
- Sunlight \_\_\_\_\_ penetrate to the bottom = no plants after a certain depth!

**Plankton**



- Microscopic \_\_\_\_\_, \_\_\_\_\_, and other organisms that float on the surface of water biomes.
- They \_\_\_\_\_ to survive.
- \_\_\_\_\_ are important \_\_\_\_\_ in water biomes.
- They are the \_\_\_\_\_ step in many aquatic \_\_\_\_\_.

**Wetlands** - A wetland is an ecosystem in which water either covers the soil or is present at or near the surface of the soil for at least part of the year.

The water in a wetland may be - \_\_\_\_\_ or standing.

It may contain water that is \_\_\_\_\_, \_\_\_\_\_ or brackish.

*Brackish* means that it is a mixture of \_\_\_\_\_ and \_\_\_\_\_ water.

There are 3 types of freshwater wetlands:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**Bogs:** These are wetlands that are dominated by \_\_\_\_\_, usually in depressions where \_\_\_\_\_ collects. This water is often very \_\_\_\_\_.

**Marshes:** Marshes are \_\_\_\_\_ wetlands along rivers.

Marshes often contain \_\_\_\_\_, rushes, and other tall grasses.

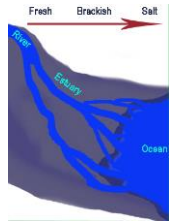
**Swamps:** Swamps look like flooded \_\_\_\_\_.

Water moves \_\_\_\_\_ through a swamp. The presence of trees and shrubs distinguishes a swamp from a marsh.

# Saltwater Ecosystems

**Saltwater** - About \_\_\_\_\_% of the water on Earth has a high concentration of \_\_\_\_\_.  
(High \_\_\_\_\_)

## Estuaries



- Area where a \_\_\_\_\_ meets an \_\_\_\_\_
- \_\_\_\_\_ of salt and freshwater
- Located near \_\_\_\_\_, border land
- Extremely \_\_\_\_\_
- Nutrient levels are \_\_\_\_\_ than both salt and freshwater

## Seashores

- \_\_\_\_\_ have a huge influence on life here
- \_\_\_\_\_ - portion of the shoreline that is \_\_\_\_\_ with water at high tide and exposed to the \_\_\_\_\_ at low tide.
  - Can be sandy or rocky
  - Small fish, clams, crabs, other mussels are trapped in the \_\_\_\_\_ during low tide

## Oceans

- Can be divided into 2 main life zones:
  1. \_\_\_\_\_ - Sunlight penetrates
  2. \_\_\_\_\_ - NO sunlight

## Photic Zone

- Above \_\_\_\_\_ meters
- Sunlight penetrates
- Plant life and animal life is \_\_\_\_\_

## Aphotic Zone

- Sunlight \_\_\_\_\_ penetrate
- There are \_\_\_\_\_
- Animal life is \_\_\_\_\_
- Many of the creatures of the deep ocean have a special adaptation known as \_\_\_\_\_.