

Vocabulary 23 Aquatic Ecosystems

hydrosphere

All of the water on earth

Example: The hydrosphere consists of the oceans, lakes, streams, ponds and rivers.

phytoplankton

Very small free floating aquatic plants

Example: The phytoplankton in the pond was thick and green.

zooplankton

Very small free floating aquatic animals

Example: The zooplankton in the pond consisted of protozans.

macroscopic

Can be seen without a microscope

Example: The tiny mites were macroscopic pond animals.

diffusion

The process of molecules moving from an area of greater concentration to one of less concentration

Example: It was diffusion that slowly brought the smell into our room.

thermocline

The layer in a lake that separates the warmer, less dense water from the cooler, more dense water.

Example: Trout fisherman know to drop their lines right above the thermocline.

salinization

The process in which a lake slowly turns salty

Example: The Great Salt Lake continues to become more salty through salinization.

brook

A small flowing body of fresh water

Example: The babbling brook created a joyful sound.

stream

A flowing body of fresh water which is larger than a brook but smaller than a river

Example: The two brooks joined to form a stream.

river

A flowing body of fresh water which is larger than both a brook and a stream

Example: The Mississippi River is sometimes referred to as "Old Man River."

productivity

The amount of sunlight that is converted to chemical energy through photosynthesis in plants (producers)

Example: The productivity of a pond is much higher than that of a deep lake.

biomass

The total amount of organic material in a given area

Example: The biomass of a swamp is much greater than that of the same area of desert.

salinity

Refers to the amount of dissolved materials (in particular, various salts) in water

Example: The salinity of the Salton Sea is greater than the ocean which is greater than Lake Tahoe.

clarity

A measure of the distance light can travel through water

Example: The clarity of Lake Tahoe is more than 1000 times greater than the San Joaquin Delta.

upwelling

A process in which deep water nutrients in the ocean are brought to the surface by wind patterns

Example: The upwelling pattern in Monterey Bay provides the basis for much food for the anchovy population which is fed upon by the King Salmon.

marine snow

The slow "raining" of organic material down through the depth of the deep oceans

Example: Marine snow makes it possible for much life in the deep ocean.

bioluminescence

The ability of an organism to produce its own light through complex chemical reactions

Example: The deep water anglerfish uses a bioluminescent tentacle to attract prey.

estuary

The area where a river mixes with the sea

Example: San Francisco Bay is a large estuary

aerobic

Referring to chemical reactions taking place with oxygen

Example: Aerobic bacteria were found in the lake.

anaerobic

Referring to chemical reactions without oxygen

Example: Anaerobic bacteria live deep in the ocean.

eutrophic

Describes a nutrient rich body of water

Example: All of the cow dung created a eutrophic pond.

groundwater

The source of fresh water found below the surface of the earth

Example: The groundwater in our area was threatened by pesticide contamination.