

Student Handout

Marine Environment Glossary

Abiotic

Refers to nonliving objects, substances or process

Anthropogenic

Caused by or resulting from human activities; often used to refer to environmental changes, global or local in scale

Bathymetry

The measurement of the depth of the ocean floor from the water surface; the oceanic equivalent of topography

Benthic

Organisms (plants and animals) that live at or near the bottom of a sea

Biodiversity

The variety of life forms: different plants, animals and micro-organisms, their genes and the ecosystems they form; it is usually considered at three levels: genetic diversity, species diversity and ecosystem diversity.

Bloom

The sudden appearance of millions of phytoplankton resulting from increased reproduction due to favorable conditions

Capelin (*Mallotus villosus*)

A small fish of the smelt family found in the Arctic Ocean in large quantities; In summer, it grazes on dense swarms of plankton at the edge of the ice shelf.

Contraction

A narrowing

Decadal

Occurring over a 10-year period, such as an oscillation whose period is roughly 10 years

Demersal zone

The water that is near to (and thus is significantly affected by) the coast or the sea floor.

Deglaciated

Indicating that glaciers have retreated from the area

Depth finders

Navigational instrument used to measure the depth of a body of water (as by ultrasound or radar)

Ecological Niche

The way a species' makes its living'; where it lives, what it consumes, and how it avoids consumption by predators or displacement by other species

Estuary

A semi enclosed coastal body of water with a free connection with the open sea where water is measurably diluted by fresh water.

Extrude

To thrust, force or press out

Evolve

To develop gradually

Field guide

Book used to identify animals

Fjord

A glaciated valley flooded by the sea to form a long, narrow, steep-walled inlet, such as Glacier Bay on the SE Alaska coastline

Gravitational pull

The force that draws all bodies in the universe toward one another

Habitat

1. The place occupied by an organism, population or community; it is the physical part of the community structure in which an organism finds its home, and includes the sum total of all the environmental conditions present in the specific place occupied by an organism. Often, a habitat is defined to include a whole community of organisms.
2. The home to a particular organism, where the species will attempt to be as adaptive as possible to that particular habitat, in what is deemed their **ecological niche**

Intertidal zone

A zone of transition extending from areas of high tide, that are routinely exposed to air and sunlight, to areas of low tide that are rarely exposed; plants and animals that inhabit this area have adapted to the extreme variability of conditions in and out of the water.

Larvae

The early, immature form of any animal when more or less of a metamorphosis takes place, before the assumption of the mature shape

Lens

Cap of less dense water

Loading

The quantity of a specific substance present per unit of surface area; also, discharge of nutrients from the watershed into a receiving body such as a lake, stream, wetland or estuary

Mean Low Water

The average level of low water at a place over a 19-year period

Minuscule

Very small

Natural History

Study of animals or plants; sum of the facts about the animals and plants of an area or class

Observation

Watching something and taking note of anything it does

Nekton

All aquatic animals that can swim through the water against currents: marine mammals, fish, squid and some crustaceans

Nutrient

Any number of inorganic or organic compounds that promote life and growth ; Nutrients are cycled through food webs.

Oceanography

The study of the ocean and ocean life

Parameter

Characteristic of a population

Pelagic zone

The part of the open sea or ocean comprising the *water column*, i.e. all of the sea other than that near the coast or the sea floor.

Phytoplankton (*fyte-o-plank-tun*)

Small, often microscopic, plants and animals floating, drifting or weakly swimming in bodies of fresh or salt water

Population

Organisms of the same species that occupy the same area

Precipitate

A fine suspension of solid particles (such as silt)

Predator

An animal that hunts and kills other animals for food

Prey

An animal hunted or caught for food

Radar

RAdio **D**etection **A**nd **R**anging. An electronic instrument that uses radio waves to find the distance and location of other objects

Rip

A stretch of turbulent water in a river or the sea caused by one current flowing into or across another current; A **tid**e **rip** is a rip caused by opposing tides.

Salinity

The degree of saltiness of a given substance such as the ocean

Sampling

The policy of inferring the behavior of a whole batch by studying a fraction of it

Scenarios

Narrative descriptions of ideas, risks and environmental factors and how they may affect operations

Sedimentation rate

The process by which suspended particles in water settle to the bottom

Stratify

To cut an object of interest into several parts, or *strata*, which are then analyzed separately; Stratification of a population results in subpopulation that can be analyzed separately.

Substrate

Surface on which a plant or animal grows or is attached

Subtidal

The portion of a tidal-flat environment that lies below the level of **mean low water** for spring tides; normally, it is covered by water at all stages of the tide

Sustainability

1. A characteristic of a process or state that can be maintained indefinitely
2. The ability of an ecosystem to maintain ecological processes and functions, biological diversity, and productivity over time

Thermocline

A boundary layer of water that separates warm surface waters from cold deep ocean waters

Tidewater glaciers

Glaciers that flow into the sea

Turbidity

A cloudy condition in water due to suspended silt or organic matter

Variation

Differences between individuals within a population or among populations

Water column

Section of water extending from the surface of a body of water to its bottom

Watershed

The total land area from which water drains into a particular stream or river

Zooplankton (*zoo-plank-tun*)

Small animals, or larvae or larger animals, which drift in the ocean that are eaten by larger fish, marine mammals and invertebrates