

Glossary

A

abiotic nonliving

active coasts coasts located near a plate boundary

adaptation evolved trait

anoxic dissolved oxygen (DO) content is 0mg/L

asthenosphere dense, plastic layer of Earth found beneath the lithosphere

atoll a ring-shaped reef that surrounds a lagoon

B

barrier island a large sediment deposit that forms between the ocean and the shore

benthic zone the bottom of the ocean, ocean floor

biogenous sediment originates from organisms like plankton when their exoskeletons break down

biogeochemical cycle refers to the movement of elements and compounds moving continuously between Earth and its organisms

biomass the total weight of fish in a stock

biotic living

boundary currents currents that fall along a coastline

bow the front of a ship

bycatch organisms other than the primary target species that are caught incidentally

C

calcareous ooze comprised mostly of plankton with calcium carbonate skeletons

carbon sink is a natural or manmade reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period

carbon source is any process or activity through which a greenhouse gas is released into the atmosphere

carbon sequestration refers to the storage of carbon for indefinite time

chronometer mechanical device for keeping time independent of ship's motion that can be used to determine longitude through celestial navigation

continental rise a gradual slope following the continental slope

continental shelf a narrow landmass of shallow water that surrounds nearly all continents

continental slope begins at the edge of the continental shelf and drops very sharply in depth

Coordinated Universal Time (UTC) a single world-wide time system used for events like observations made by scientific spacecraft or eruptions on the Sun

Coriolis Effect tendency of a moving object in the Northern Hemisphere to deflect right and in the Southern hemisphere to deflect left

cosmogenous sediment originates in space, filters in through the atmosphere or travels to Earth on meteorites

crest highest point of a wave

current regular movement of large amounts of water along defined paths

D

dead zone is an area of an ocean, estuary, river, lake or other water body with low DO (hypoxic conditions) or no DO (anoxic conditions) that cannot support most marine life

diurnal tide one low tide and one high tide each day

duration the length of a wind gust over water

E

ecosystem a physically distinct area that contains a community of interacting organisms

equator The latitude line at 0 degrees.

estuary partially enclosed body of water where freshwater from rivers mixes with saltwater

euphotic zone the uppermost sunlit layer where photosynthesis can take place

eutrophication ecological imbalance that occurs as a result of excess nutrients

F

fathom unit used to measure water depth equal to 6 vertical feet (2 yards) in water

fetch the distance that wind blows over water

fishing mortality rate the rate at which fishing removes fish from a stock

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H

halocline rapid change in salinity with depth

homeostasis maintenance of constant internal conditions within the body

hydrogenous sediment originate from chemical reactions in the ocean

hypoxic dissolved oxygen (DO) content less than 2mg/L

I

International Date Line a special time zone boundary, most of it following the line of longitude 180° that ensures correct matching of dates when crossing times

zones

intertidal zone the area of the ocean that is entirely submerged at high tide and dry during low tide

K

knot (kt or kn) the internationally accepted measure of maritime (a ship's) speed

L

land-deposition coasts formed when rivers flow into the ocean and sediment accumulates along a wide shelf

latitude The measurement of location north or south of the equator

lithogenous sediment originates from land and move to the ocean via rivers, ice, wind and other processes

lithosphere rigid layer of Earth composed of the crust and the outer zone of the mantle

longitude The measurement of location east or west of the Prime Meridian

longshore drift the movement of sediments along the coast parallel to the shore

M

marine-deposition coasts formed by sea movement causing accumulation of sediments in a single place

maximum sustainable yield (MSY) the greatest number of fish that can be caught each year without impacting the long-term productivity of the stock

mixed tide two low tides and two high tides each day with different tidal ranges

N

nautical mile unit of measurement used to measure distance over water that is equal to one minute of latitude or 6,076 feet

neap tides occur when the Sun and the Moon form a 90° angle with respect to the Earth

neritic zone the area between low tide and the end of the continental shelf

niche an organism's role in its habitat

O

ooze deep-ocean sediment that is comprised of more than 30% biogenic material

oceanic zone open water beyond the coastal zone

P

overfishing occurs when fishing mortality exceeds a specific threshold, usually set at a level to achieve MSY

passive coasts coasts located far from plate boundaries and thus not associated with the tectonic activity of active coasts

pelagic zone the open water

period the time it takes the same spot on two waves to pass a single point

population a group of interacting members of the same species

port left side of a ship

primary coasts formed by land-driven rather than ocean-driven processes like plate tectonics, land erosion and sedimentation

Prime Meridian The 0 degree longitude line that runs through Greenwich, England that marks the starting point of every time zone in the world.

Principle of Constant Proportions the ratio of any two major constituents dissolved in seawater is constant

pycnocline rapid change in density with depth

S

salinity a measure of the total concentration of dissolved solids in water

secondary coasts formed by more ocean driven processes like wave erosion or growth of a coral reef

semidiurnal tide two low tides and two high tides each day with the same tidal range

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siliceous ooze comprised mostly of plankton with silicon-based skeletons

solute material dissolved in solvent

solvent dissolving agent

spit a length of sand that accumulates in the direction of longshore drift

spring tides occur when the Sun and the Moon form a straight line with respect to the Earth

statute mile unit of length used to measure distance on land equal to 5,280 feet

thermocline rapid change in temperature with depth

starboard the right side of a ship

stern the back of a ship

T

Thermohaline circulation global circulation of Earth's ocean waters driven by density differences that are controlled by temperature and salinity

tidal range the difference between the water level at high tide and low tide

tide the periodic rise and fall of sea level

tombolo spit that forms either between two islands or from an island to mainland

Tropic of Cancer The northernmost latitude at which the sun can appear directly overhead at noon. It is located around 23.5 degrees North latitude of the equator.

Tropic of Capricorn The equivalent of the Tropic of Cancer south of the Equator is located around 23.5 degrees South latitude. The region between the two, centered at the equator is known as the Tropics.

trough lowest point of a wave

W

wave transmission of energy through matter

wavelength the horizontal distance between the same point on two waves