Blue Impact Series
Glossary

New England Aquarium
Protecting the blue planet

Algae
A large group of primitive plants that live mostly in water. Kelp and other seaweeds are algae. Algae have simple bodies, many kinds exist as single cells.

Atmosphere
The gaseous envelope surrounding Earth. The atmosphere consists almost entirely of nitrogen and oxygen, together with trace gases including carbon dioxide, ozone and water vapor.

Biodiversity
The total diversity of all organisms and ecosystems at various spatial scales (from genes to entire biomes)

Carbon dioxide (CO_2)
A naturally occurring gas fixed by photosynthesis into organic matter, a by-product of fossil fuel combustion and biomass burning

Climate
Climate in a narrow sense is usually defined as the average weather, or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. These quantities are most often surface variables such as temperature, precipitation and wind.

Climate change
Any change in climate over time, whether due to natural variability or as a result of human activity

Copepod
A member of a large group of species of tiny shrimp-like crustaceans

Coral
Small animals related to jellies and anemones that have hard limestone skeletons; each individual coral is called a polyp

Coral bleaching
The paling in the color of coral that occurs if a coral loses its symbiotic, energy-providing organisms, called zooxanthellae

Coral reef
Rock-like limestone (calcium carbonate) structures built by corals that occur in tropical and sub-tropical oceans

Current
A horizontal movement of water that can be caused by temperature differences in the water

Exhaust
The mixture of gases produced by an engine

Feedback loop
An interaction mechanism between processes is called a feedback when the result of an initial process triggers changes in a second process and that in turn influences the initial one. A positive feedback intensifies the original process, and a negative feedback reduces it.

Global warming
An overall increase in world temperatures, which may be caused by additional heat being trapped by greenhouse gases

Great ocean conveyor
Constant motion in the ocean caused by cold, salty water that is dense, which sinks to the bottom of the ocean while less-dense warm water rises to the surface

Greenhouse effect
The process in which the absorption of heat by the atmosphere warms the earth

Habitat
The environment in which an organism is commonly found, which provides the organism with food, shelter and water

Horseshoe crab
A type of arthropod that is not a true crab but related to arachnids (spiders, scorpions, ticks and mites)

Jelly
Also called jellyfish, a drifting sea animal with a soft central disk and stinging cells in their tentacles. Jellies are related to coral and sea anemones.

Migrate
To move, usually periodically, from one region or climate to another for feeding or breeding

Ocean acidification
Increased concentration of CO_2 in sea water that cause a measurable increase in acidity (i.e., a reduction in ocean pH). This may lead to dissolving shells of animals such as corals, mollusks, algae and crustaceans.

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Phytoplankton
Small plant-like aquatic organisms that drift or swim weakly. Phytoplankton are the most common plants in the sea, and are the basis of the entire marine food web.

Positive feedback loop
As rising concentrations of greenhouse gases warm Earth's climate, snow and ice begin to melt. This melting reveals darker land and water surfaces that were beneath the snow and ice, and these darker surfaces absorb more of the sun's heat, causing more warming, which causes more melting, and so on, in a self-reinforcing cycle. See also feedback loop

Sea-level rise
An increase in the average level of the ocean. Sea-level rise occurs where there is a local increase in the level of the ocean relative to the land.

Sea turtles
A member of a group of species of turtles adapted for life in the sea. Sea turtles have flipper-like legs and come to shore only to lay their eggs.

Shorebird
Birds such as plovers, gulls and sand pipers that do not travel far from the coast and are often found on the beach

Symbiont
An organism living in symbiosis, especially the smaller member of a symbiotic pair

Temperature
Measurement of the hotness or coldness using a thermometer (determined by the vibration of molecules: more vibration=more heat)

Thermal expansion
In connection with sea-level rise, this refers to the increase in volume that results from warming water. A warming of the ocean leads to an expansion of the ocean volume and hence an increase in sea level.

Whales
Large sea mammals that have smooth skin and breathe through a blowhole located on top of the head. The toothed whales, including sperm whales, orcas, dolphins and porpoises, have sharp teeth for catching fishes. The baleen whales, including the blue whale, gray whale and humpback, have flexible baleen fringes in their mouths for filtering and eating krill.

Zooplankton
Microscopic aquatic organisms that drift or swim weakly, the animal forms of plankton. They consume phytoplankton or other zooplankton.

Zooxanthellae
A single-celled algae living within each coral polyp, which provide food to the polyps by photosynthesis

Sources

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