abiotic

The non-living parts of an ecosystem, such as water, sand and rocks which living things interact with.

adaptation

A feature which is especially important for an organism's survival eg the adaptation of horses' teeth to the grinding of grass, or their ability to run fast and escape predators.

algae

Primitive plants that can make food from sunlight.

bioaccumulation

The process where levels of toxic chemicals in organisms increase as they eat each other at each trophic level in the food web

biodiversity

The number and variety of living things found within a region. Made from the two words 'biological' and 'diversity'.

biotic

The living parts of an ecosystem.

bivalve

A bivalve is an animal that has two hinged shells, which are called valves. All bivalves are mollusks. Examples of bivalves are clams, mussels, oysters, and scallops. Bivalves are found in both freshwater and marine environments. Many bivalve species play important roles in aquatic and marine ecosystems by filtering the water and serving as habitat and prey for a variety of sea life.

boulders

A large rounded rock on the surface or set in the soil.

coast

Land next to the sea.

consumers

Consumers are organisms that need to eat (i.e. consume) food to obtain their

energy. Animals are consumers so too are fungi and many bacteria are also consumers.

climate

The general weather patterns experienced in an area over a long period of time.

continental shelf

The area of seabed around a large land mass where the sea is relatively shallow compared with the open ocean.

coralline algae

A type of pink low growing algae. Also called coralline paint or turf.

crevice

A narrow crack or opening, especially in rock.

crustacean

A hard shelled animal with several pairs of legs, two pairs of antennae, and eyes at the ends of stalks e.g crabs, lobsters, crayfish, shrimp, krill and barnacles.

decomposers

Organisms that break down dead or decaying material.

desiccation

When the moisture is removed from something.

echinoderm

A spiky marine animal that has a symmetrical body, tube feet, and a system of plates under the skin e.g starfish.

ecosystem

A community of living things and the environment in which they live.

ecosystem-based management

An environmental management approach that recognizes all interactions within an ecosystem, including humans, rather than considering single issues, species, or ecosystem services in isolation.

ecosystem services

Ecosystem processes that benefit humans are called “ecosystem services”. Pollination is an example of an ecosystem service.

endemic

Plants and animals that exist only in one country or region.

environment

All the external factors influencing the life and activities of people, plants, and animals e.g other animals and plants, water, soils, weather, daylight.

estuary

The tidal mouth of a large river, where the tide meets the stream.

eutrophication

The excessive build up of nutrients in a lake or other body of water, frequently due to run-off from the land, which causes a dense growth of plant life

evaporation

Changing from a liquid into a vapour.

excrement

Waste matter discharged from the body.

Exclusive Economic Zone EEZ

An area of sea that extends from 12 nautical miles from a countries coast to 200 nautical miles (371 kilometres). New Zealand is allowed to control the taking of resources within its EEZ.

fauna

Animal life in general.

filter feeders

Animal that feed by sieving small food items from water. Bivalve molluscs and sea squirts, are examples of filter feeders that collect food by pumping water through or across their bodies.

fiord

A long, narrow inlet with steep sides or cliffs, carved out by a glacier which has

since retreated.

fish

Any cold-blooded animal with a back-bone that typically has jaws, fins, scales, a slender body, a two-chambered heart, and gills for providing oxygen to the blood.

food chain

An arrangement of organisms in a community according to which organism is eaten or eats another. Food chains always start with a plant (or plants).

food web

A system of food chains linked to one another.

gastropods

A mollusc that has a head with eyes, a large flattened foot, and often a single shell e.g limpets, snails, and slugs.

habitat

The home or surroundings of an organism eg rocky shore.

Hawaiki

The legendary Pacific homeland of the Māori people, from which they travelled to Aotearoa and to where their spirits are believed to return after death.

inter-tidal

Between the high and low tide points on a beach.

invertebrate

An animal such as an mollusc or worm that does not have a backbone.

ledge

A projecting ridge.

mollusc

An invertebrate with a soft unsegmented body. They are usually protected by a shell in one, two, or three pieces e.g clams, snails, slugs, squid, and octopuses.

National Science Challenge

There are 11 New Zealand National Science Challenges which focus science investment on issues that matter to all New Zealanders. The National Science Challenges include a range of experts from different organisations working together. They are designed to tackle New Zealand’s biggest science-based challenges. The Sustainable Seas Challenge is one of these projects.

nautical mile

A unit of measurement used at sea equal to 1852 metres. A nautical mile is based on the circumference of the earth, and is equal to one minute of latitude.

niche

How an organism makes a living. It describes things such as an organism's life history, its habitat, its position in a food chain and food web and its geographic range. No two species can occupy the same niche in the same environment for a long time.

NIWA

Stands for the National Institute of Water and Atmospheric Research. It is a Crown Research Institute of New Zealand specialising in environmental sciences eg aquaculture, aquatic biodiversity, aquatic biosecurity, atmospheric science, climate change, coastal ecology, energy, fisheries, hydrology, marine geology, natural hazards (e.g. tsunami, storm surge, floods, earthquake, volcano), oceanography, sedimentology.

nutrient

A substance that provides nourishment essential for the maintenance of life and for growth.

organism

An individual form of life, such as a plant, animal, bacterium, protist or fungus.

pelagic

The organisms living on the surface to mid-water zone of the sea.

photosynthesis

The chemical process which algae and green plants use to produce food. Photosynthesis needs carbon dioxide, water and sunlight.

phytoplankton

Tiny organisms, mainly single celled algae floating near the water's surface, that use photosynthesis to obtain food from sunlight, carbon dioxide and water. (Comes

from the Greek words "phyton" or "plant", and "planktos" meaning "wanderer" or "drifter").

predator

An animal that naturally preys on others.

prey

An animal that is hunted and killed by another for food.

producers

Producers are organisms that make their own food. Producers create food for themselves in order to grow and reproduce. However, producers also serve as food for the rest of the ecosystem, the consumers. Plants are producers.

protist

Simple, one-celled (or multicelluar organisms but with no cell specialisation) organisms living in water. Includes the algae and slime moulds).

reef

A ridge of coral or rock in water, with the top just below or just above the surface.

resource

Something that is ready to use if or when it is needed.

salinity

The amount of dissolved salt in water.

sea urchin

An echinoderm with a round, spiny shell - also known as kina.

seaweed

Any of many marine algae, such as kelp.

sediment

Material, originally suspended in a liquid, that settles at the bottom of the liquid when it is left standing for a long time. Material eroded from rocks that is transported by water, wind, or ice and deposited elsewhere.

species

Animals of the same type. The members of the same species are able to interbreed and produce fertile offspring.

spring tide

A tide that occurs at the times of the new moon and full moon. The high and low tides have a greater than average range.

stressors

Ecosystem stressors are physical, chemical, and biological factors that impact the health and function of ecosystems. Stressors can be natural, such as storms and fires or caused by people, such as climate change and pollution.

sustainable

Using natural resources without destroying the ecological balance of an area.

terraces

Area of naturally flat ground beside the sea.

tidal

Relating to the tides.

tide

The cyclical rise and fall of the sea occurring about every twelve hours. Tides are caused by the combined effects of the rotation of the Earth and the gravitational forces exerted by the Moon and the Sun.

tipping point

Tipping points occur when small shifts in human pressures or environmental conditions bring about large, sometimes abrupt changes in a system and the system changes from one state to another. It is difficult for these changes to be reversed.

taonga

Treasure, anything prized - applied to anything considered to be of value including socially or culturally valuable objects, resources, ideas and techniques

trophic level

A trophic level of an organism is its position in a food chain. Levels are numbered according to how far particular organisms are along the chain from the primary

producers (plants) at level 1, to herbivores (level 2), to predators (level 3), to carnivores or top carnivores (level 4 or 5).

zooplankton

Small and microscopic animals, mainly crustaceans and fish larvae, floating near or at the water's surface.