

Definitions

Ecology



Definitions

- **Ecology** is the study of the interactions between organisms and between organisms and their environment.
- The **biosphere** is the part of the planet containing living organisms.
- An **ecosystem** is a group of clearly distinguished organisms that interact with their environment as a unit.
- A **habitat** is the place where an organism lives.
- A **population** is all the members of the same species living in an area.
- A **community** is all the different populations in an area found in an ecosystem.
- **Abiotic factors** are non-living factors.
- **Biotic factors** are living factors.
- **Climatic factors** refer to weather over a long period of time.
- **Edaphic factors** relate to soil.
- **Producer** - an organism that makes its own food.
- **Flora** is all the plants in an ecosystem.
- **Fauna** is all the animals in an ecosystem.
- **Consumers** are organisms that take in food from another organism.
- **Decomposers** are organisms that feed on dead organic matter.
- **Detritus feeders** are organisms that feed on small pieces of dead organic matter.

Definitions

- A **food chain** is a sequence of organisms in which each one is eaten by the next member in the chain.
- A **trophic level** is a feeding stage in a food chain.
- A **food web** consists of two or more interlinked food chains.
- A **pyramid of numbers** represents the number of organisms at each trophic level in a food chain.
- The ecological **niche** of an organism is the functional role it plays in the community.
- **Nutrient recycling** is the way in which elements such as carbon and nitrogen, are exchanged between living and non-living components of an ecosystem.
- **Nitrogen Fixation** is the conversion of nitrogen gas into ammonia, ammonium or nitrate.
- **Nitrification** is the conversion of ammonia and ammonium compounds to nitrite and then to nitrate.
- **Denitrification** is the conversion of nitrates to nitrogen gas.
- **Pollution** is any harmful addition to the environment.
- **Pollutants** are harmful additions to the environment.
- **Conservation** is the wise management of the existing natural resources in an ecosystem, in order to maintain a wide range of habitats and prevent the death and extinction of organisms.

Definitions

- **Competition** occurs when organisms actively struggle for a resource that is in short supply.
- **Intra-specific** competition takes place between members of the same species.
- **Inter-specific** competition occurs between members of different species.
- In **contest competition**, there is an active physical contest between two individual organisms, with only one winner.
- In **scramble competition**, all of the competing individuals get some of the resource.
- **Predation** is the catching, killing and eating of another organism.
- A **predator** is an organism that catches, kills and eats another organism.
- The **prey** is the organism that is eaten by the predator.
- **Parasitism** occurs when two organisms of different species live in close association and one organism obtains food from, and to the disadvantage of, the second organism, the host.
- **Symbiosis** occurs when two organisms of different species live or have to live in close association and at least one of them benefits.

Definitions

- A **qualitative study** records the presence or absence of organisms.
- A **quantitative study** records the numbers of organisms that are present.
- An **adaptation** is any alteration that improves an organism's chances of survival and reproduction.