

ENVIRONMENTS

Definitions

Habitat: place where a plant or animal lives.

Population: a group of organisms of the same species living in the same area.

Community: different groups of organisms that live together in a particular habitat.

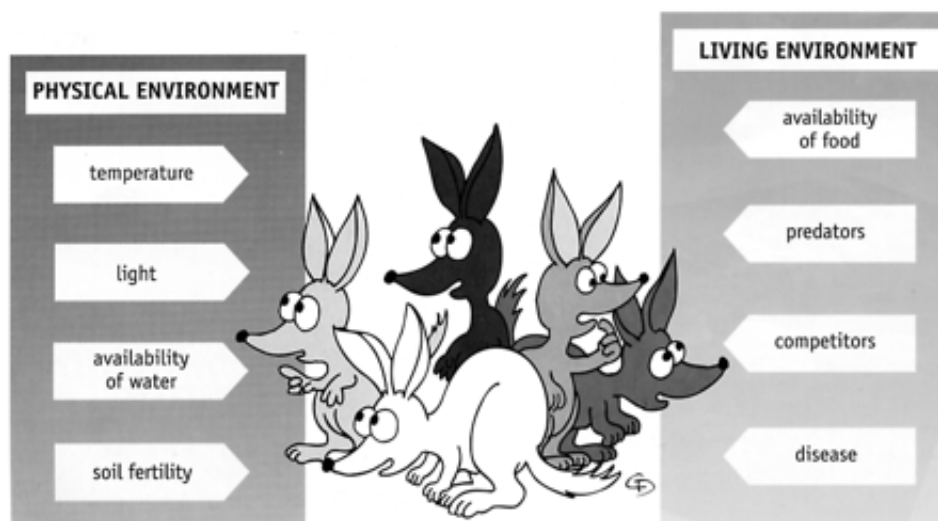
Environment: all the conditions in a habitat that affect the survival of an organism.

Biotic factors: living factors that shape an environment.

e.g. Predators, parasites, availability of food, disease.

Abiotic factors: non-living factors that shape an environment.

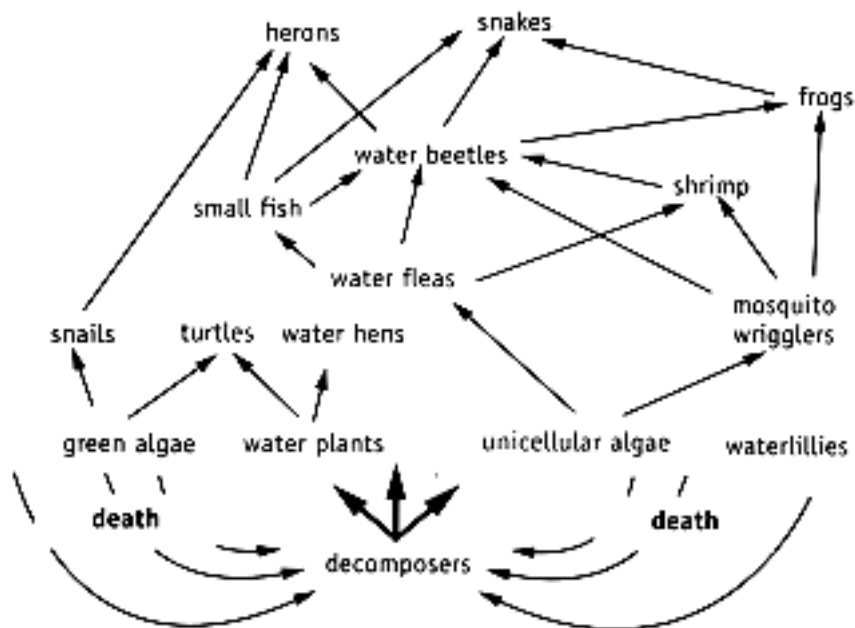
e.g. Temperature, water, wind, light, soil fertility, wave action and tides.



Ecology: study of interactions between living things and their environment.

Ecosystem: complex system of feeding relationships and interactions with abiotic factors.

The diagram below represents a food web showing the feeding relationships in a community.



Adaptation: any feature of an organism that helps it survive and reproduce in the environment.

- e.g. Eagles have claws adapted for gripping prey from the ground.
- Kangaroos have long tails for balance when hopping.

Types of Physical Environments

Aquatic

Factors that affect survival in water.

- Amount of O₂ in the water.
- Temperature.
- Amount of light available.
- Effect of currents and waves.
- Effect of buoyancy.

Land

Factors that affect survival on land.

- Structures to absorb O₂ (e.g. lungs, gills).
- Skeleton to support muscles.
- Excessive water loss.
- Regulating temperature of the body.