

Competition

When organisms of the same or different species ‘fight’ for necessary resources that are in short supply.

Intra-specific competition:

Between members of the same species i.e. within a species

Inter-specific competition:

Between members of different species



Contest Competition

involves an active physical contest between two organisms – one wins



Scramble Competition

This is where each organism tries to get as much of the same resource as possible.
e.g. an ivy plant and a hawthorn tree may compete for light.





Predation

Predator: animal that hunts, captures and kills other animals (prey) for food.

Prey:

- Plants may have thorns, spines or stings
- Nasty taste when eaten e.g. giant hogweed
- Are faster than their predator
- Staying in herds or flocks – safety in numbers
- Camouflage – greenfly, stick insects



Parasitism

A parasite in an organism that lives off another organism and often causes harm.



Symbiosis

This occurs when two organisms live close together and at least one of them benefit.

Nitrogen fixing bacteria live in nodules on the roots of some plants. e.g. clover



Clownfish and sea anemones have a mutually beneficial relationship.

Popular Myth



← Egyptian Plover or Crocodile Bird
cleaning Nile Crocodile's teeth

PLANT OR ANIMAL?

One of the strangest cases of symbiosis is that of the acoel flatworm. These tiny worms live along shorelines and look like masses of seaweed. The worms themselves are transparent, but within them live algae, which contain chlorophyll and are capable of photosynthesis. They give the worms a green color. The algae absorb sunlight through the worms' clear skin and photosynthesise food. The worms have no functioning digestive tract or working mouths. The algae even recycle the worms waste products, and go through entire life cycles inside the worms' bodies.

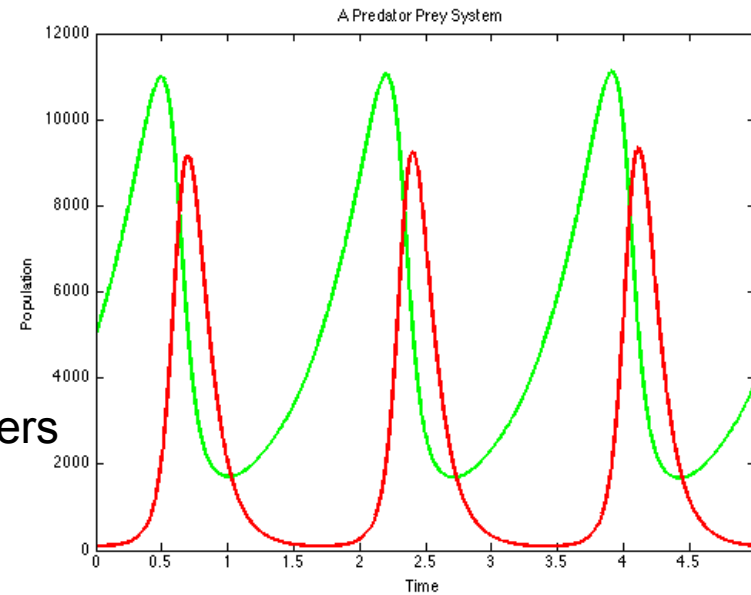


Population Dynamics

Predator and **Prey** numbers are linked.
An example is **Foxes** and **Rabbits**.
The green is rabbits and red are Foxes.

As the number of rabbits goes up so
does the number of Foxes.

The foxes eat too many rabbits, their numbers
drop and so Foxes die of starvation.



Human Population Growth

Has continued to rise since the early 1900's. This is due to the falling death rates.

People are living longer because of disease control methods and **medicine**.

Factors that reduce a population are **war**, **famine**, poverty.

Less people are born due to **wealth** and **contraception**.

More people are born due to lack of contraception and **poverty**.





