

Feeding Types



Different types of organisms can be grouped in several ways. One grouping system is based on how organisms obtain their food.

Some organisms produce their own food. They are called **producers**.



Plants produce their own food using light energy from the Sun. Some types of bacteria can also make their own food by using light or chemical reactions.



Other organisms cannot make their own food. They are called **consumers**.



Is each organism a producer or a consumer?

producer

consumer

dandelion



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Consumers can be grouped into different types:

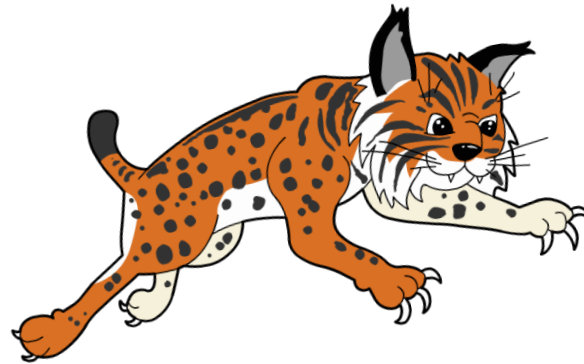
Herbivores

These consumers eat producers.



Carnivores

These consumers eat other consumers.



Omnivores

These consumers eat other consumers and producers. Omnivores eat animals and plants. Most humans are omnivores.



What is the definition of each feeding type?

carnivore

An organism that only eats producers.

consumer

An organism that eats consumers and producers.

herbivore

An organism that produces its own food.

omnivore

An organism that cannot make its own food.

producer

An organism that only eats other consumers.



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Predator-prey relationships

Animals that are high up in food chains, such as the fox, tend to be hunters that are skilled at locating and killing their food. These hunters are called **predators**.



The animals on which the predator feeds are called their **prey**.

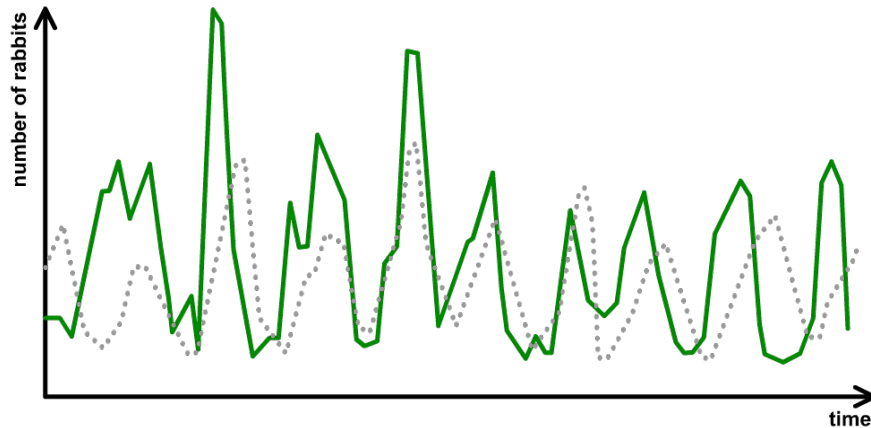
Prey animals tend to be well adapted to avoid the predator.



Common prey adaptations include camouflage or the ability to produce poisonous toxins.

Prey population changes

The relationship between predator and prey population numbers in a food web is very close and follows a cyclical pattern. This means that it rises and falls in a fairly regular cycle. Why is this?

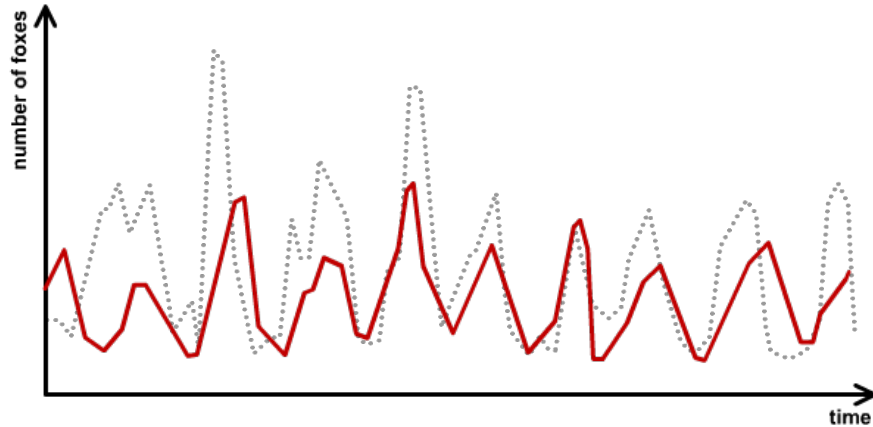


The rabbit population changes due to both the vegetation growing season **and** changes in the fox population.

Individual rabbits must compete for food and mates, and must also avoid being killed by their predators, the foxes.

Predator population changes

The fox population also follows a cyclical pattern very similar to the rabbit population. Why is this?



The fox is very dependent on rabbits for food, so as the rabbit population changes, so does the fox population.

This is why the fox population rises and falls slightly after the rise and fall of the rabbit population.

How do cyclical rises and falls in population numbers affect the organisms in a larger food web?