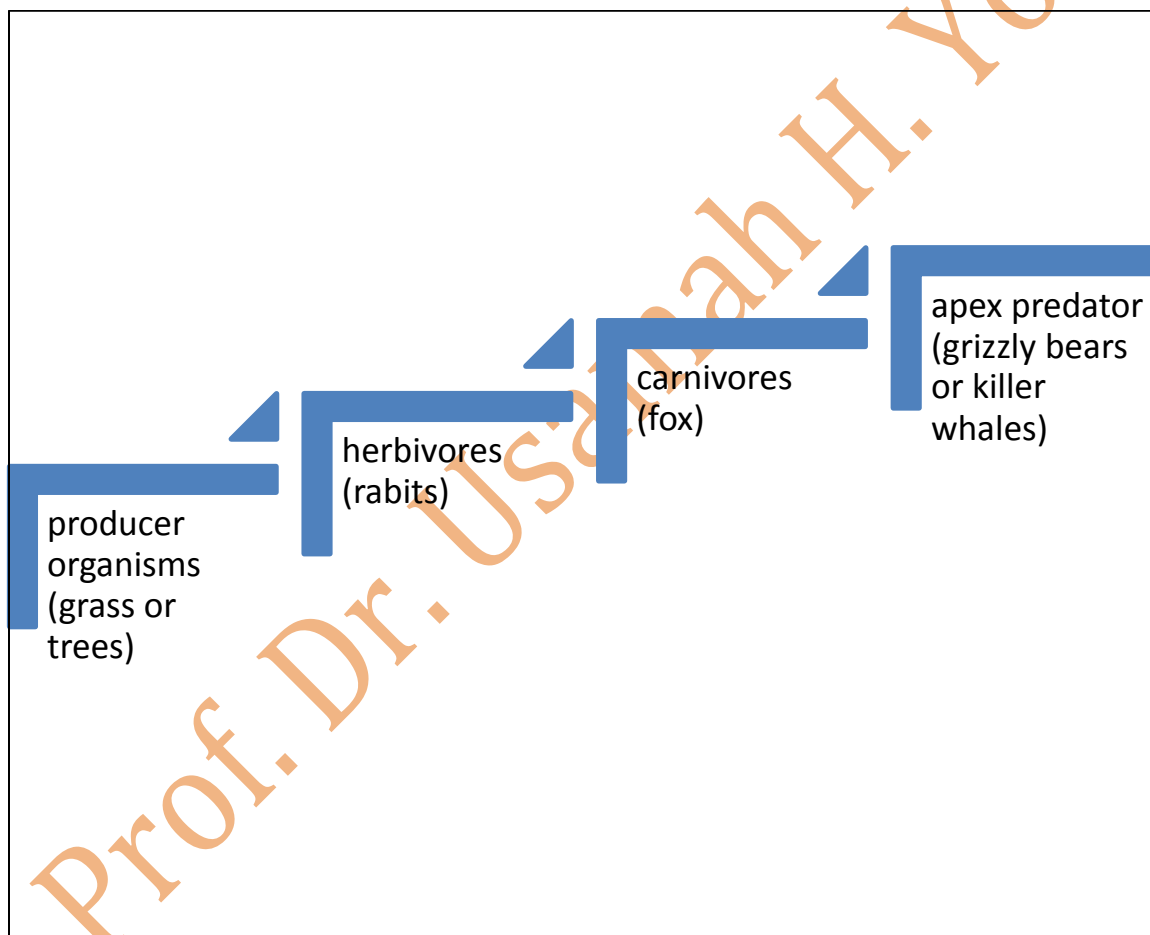
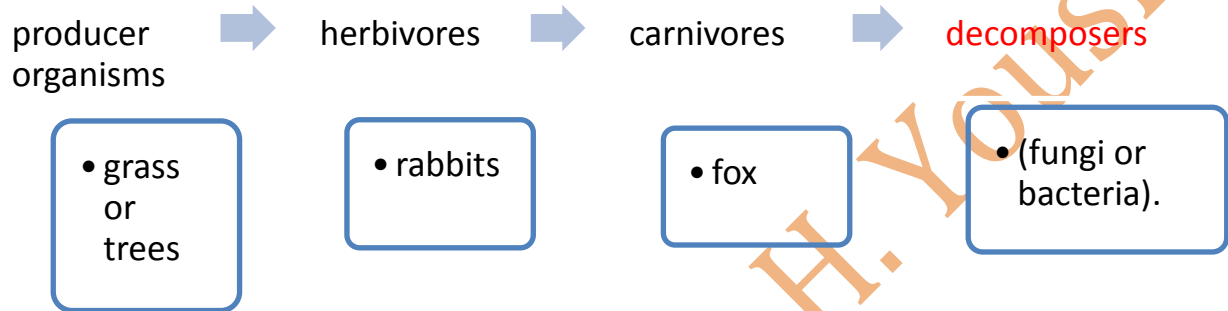
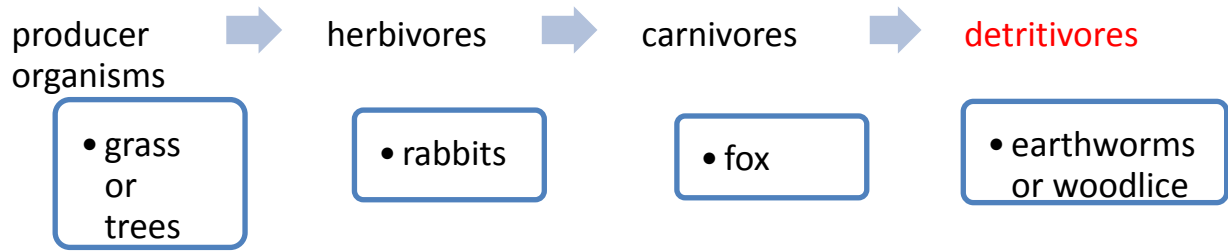


Food chain:

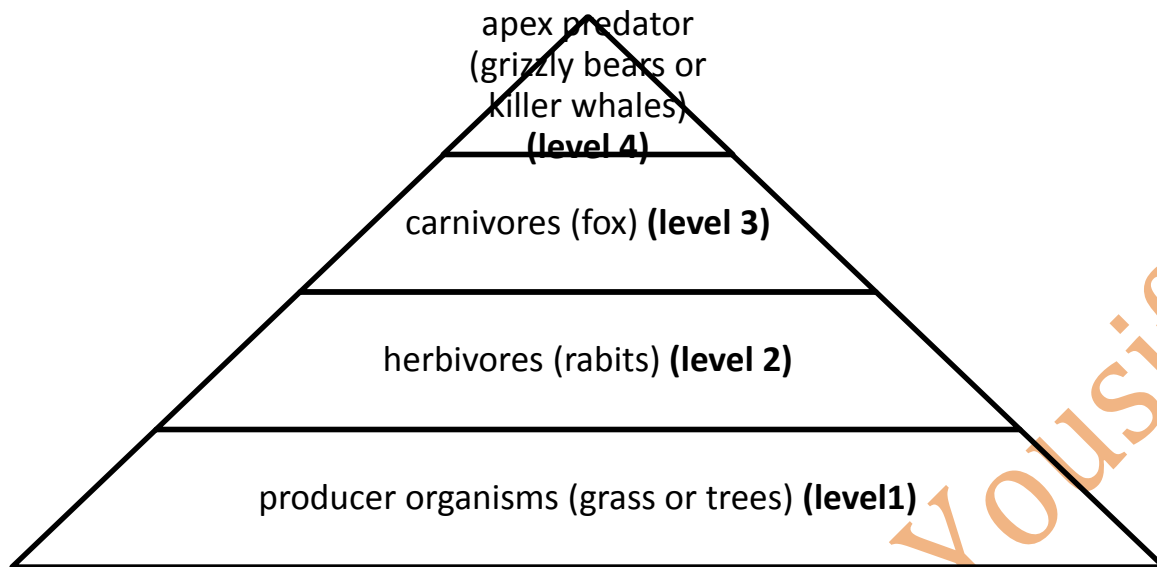
A **food chain** is a linear network of links in a [food web](#) starting from [producer organisms](#) (such as [grass](#) or [trees](#) which use radiation from the sun to make their food) and ending at [apex predator](#) species (like [grizzly bears](#) or [killer whales](#)), [detritivores](#) (like [earthworms](#) or [woodlice](#)), or [decomposer](#) species (such as [fungi](#) or [bacteria](#)).





A food chain also shows how the organisms are related with each other through the food they eat. Each level of a food chain represents a different [trophic level](#).

Prof. Dr. Usamah H. Yousif



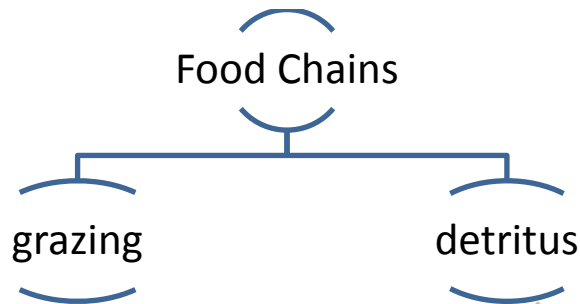
All food chains must start with a producer. They vary in length from three to six or more levels. A food chain consisting of a flower, a frog, a snake and an owl consists of four levels; whereas a food chain consisting of grass, a grasshopper, a rat, a snake and finally a hawk consists of five levels.

Increasing lengths of food chain leads to:

- (1) increasing of the ecosystem size
- (2) reduction of energy at each successive level and
- (3) they are unstable.

Types of Food Chains found in Ecosystems:

In nature, basically two types of food chains are recognized – grazing food chain and detritus food chain.



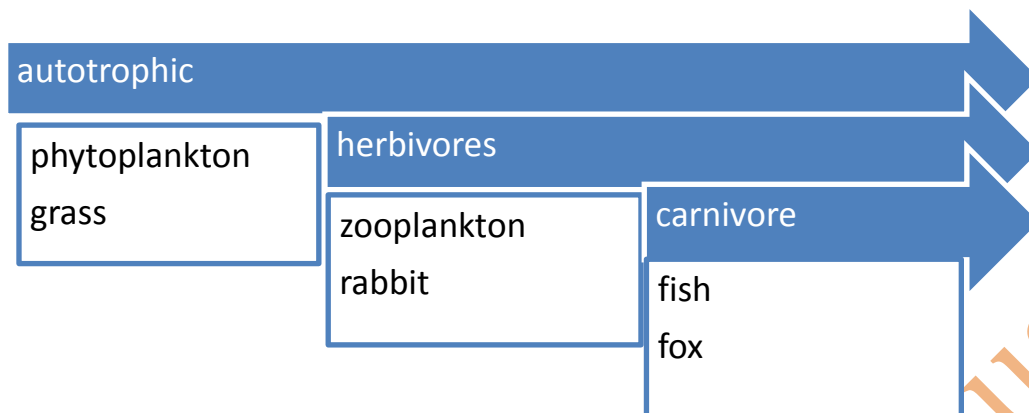
1. Grazing food chain:

This type of food chain starts from the living green plants goes to grazing herbivores, and on to carnivores. Ecosystems with such type of food chain are directly dependent on solar radiation.

This type of chain thus depends on autotrophic energy capture and the movement of this captured energy to herbivores. Most of the ecosystems in nature follow this type of food chain.

The phytoplankton → zooplankton → Fish sequence

Or the grass → rabbit → Fox sequences are the examples of grazing food chain.



2. Detritus food chain:

This type of food chain goes from dead organic matter into microorganisms and then to organisms feeding on detritus (detritivores) and their predators. Such ecosystems are thus less dependent on direct solar energy. These depend chiefly on the organic matter produced in another system. For example, such type of food chain operates in the decomposing accumulated litter in a temperate forest.

