Prime Scholars Library

Advances in Agriculture, Food Science and Forestry

Vol. 10 (4), pp.10 - 11, December, 2022

Opinion Article

Available online at
https://primescholarslibrary.org/

Types of food chains in ecosystem and their applications

Ping Xu*

Department of Food Science, College of Nutation and Food Science, University of Tokyo, Tokyo, Japan.

Received: 14-Nov-2022, Manuscript No. AAFSF-22-82659; **Editor assigned:** 17-Nov-2022, PreQC No. AAFSF-22-82659 (PQ); **Reviewed:** 30-Nov-2022, QC No AAFSF-22-82659; **Revised:** 07-Dec-2022, Manuscript No. AAFSF-22-82659 (R); **Published:** 14-Dec-2022, DOI: 10.51268/2736-1799.22.10.088

DESCRIPTION

A food chain is a relationship between individuals that forms a linear chain. In an ecosystem food chain, energy flows from one trophic level to another. There are two types of food chains: the grass food chain and the detritus food chain. The grazing food chain begins with a producer or plant, progresses from herbivorous primary consumers to carnivorous secondary consumers, and ends with tertiary carnivores. The detritus food chain begins with dead organic matter, progresses to microbes, and then organisms that eat offspring and their enemies. It is found in temperate woodlands with high soil organic matter. The food chain is the transfer of food energy from producers through various organisms (herbivores, carnivores, and decomposers) through repeated eating and being eaten.

The grazing food chain starts with green plants, goes through herbivores, and finally carnivores. Photosynthesis provides energy to the lowest trophic levels of the grazing food chain. The first transfer of energy in this type of food chain is from plants to herbivores. Since autotrophs form the basis of all ecosystems on Earth, the majority of ecosystems within the environment follow this type of food chain. As a result, this type of cycle relies on autotrophic energy uptake and transmission to herbivores. This form of food chain is found in most natural ecosystems.

Food-chain studies support our knowledge of the difficulty of organism expansion (i.e., the concentration of toxic substances in the tissues of resistant organisms accumulates to continuously high levels up the food chain). Food chain studies support our understanding of food linkages and interactions among organisms in ecosystems. If we understand the food chain in the ecosystem, we can understand the energy flow mechanism and material circulation in the ecosystem. It helps us understand how harmful compounds move through ecosystems.

This type of food chain progresses from dead organic matter to microorganisms to organisms that eat detrivores and their enemies. Such ecosystems are therefore less dependent on direct solar energy. These mainly rely on the influx of organic matter generated in another system. For example, one such food chain functions in the decomposition of waste

accumulated in temperate forests. The basic purpose of food webs is to describe the trophic relationships between species within a community. Food webs can be constructed to describe interactions between species. All species in the food web are basal (autotrophic organisms such as plants), intermediate (herbivores, moderate carnivores such as grasshoppers and scorpions), or apex predators (high level carnivores such as foxes).can be divided into these food groups are called trophic levels. As primary producers, basal species account for the lowest trophic levels.