

FOOD CHAIN

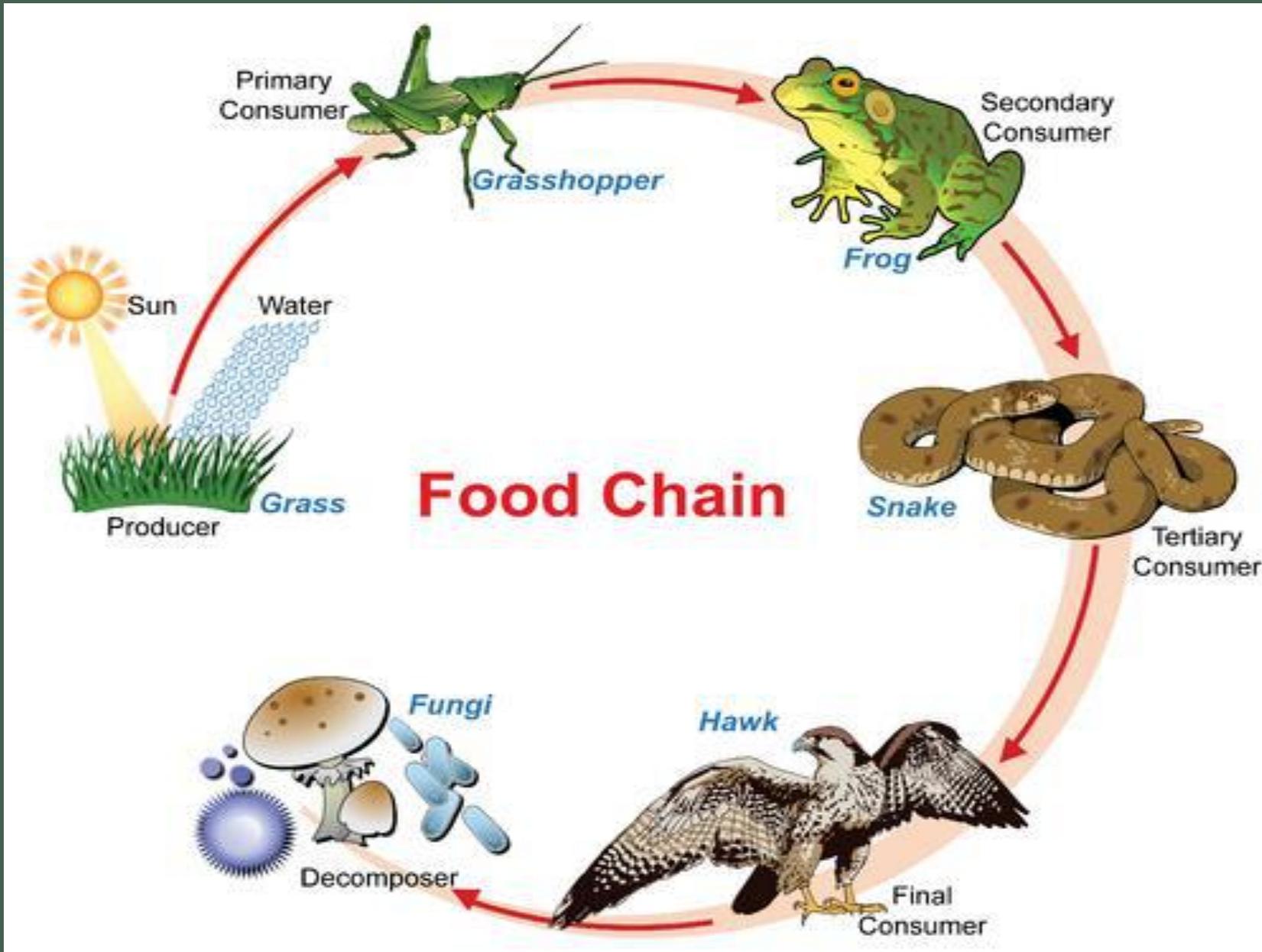
B.Sc. Part-I, Paper-I, Group-B

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INTRODUCTION

- Organism in The ecosystem are related to each other through feeding mechanism or trophic level i.e. one organism become food of other. The sequence of organism that feed on one another forms a food chain.
- The food chain starts with producers and ends with top carnivores.
- The sequence of eaten and being eaten, produces transfer of food energy and it is known as food chain.
- A **food chain** is a linear sequence of organisms through which nutrients and energy pass as one organism eats another.
- The producers (green plants), trap the solar energy and convert these energy into chemical energy by the process of photosynthesis.
- Small herbivores consume the plant matter and convert them in animal matter.

The primary consumers are eaten up by secondary consumers and so on.



TYPES OF FOOD CHAINS

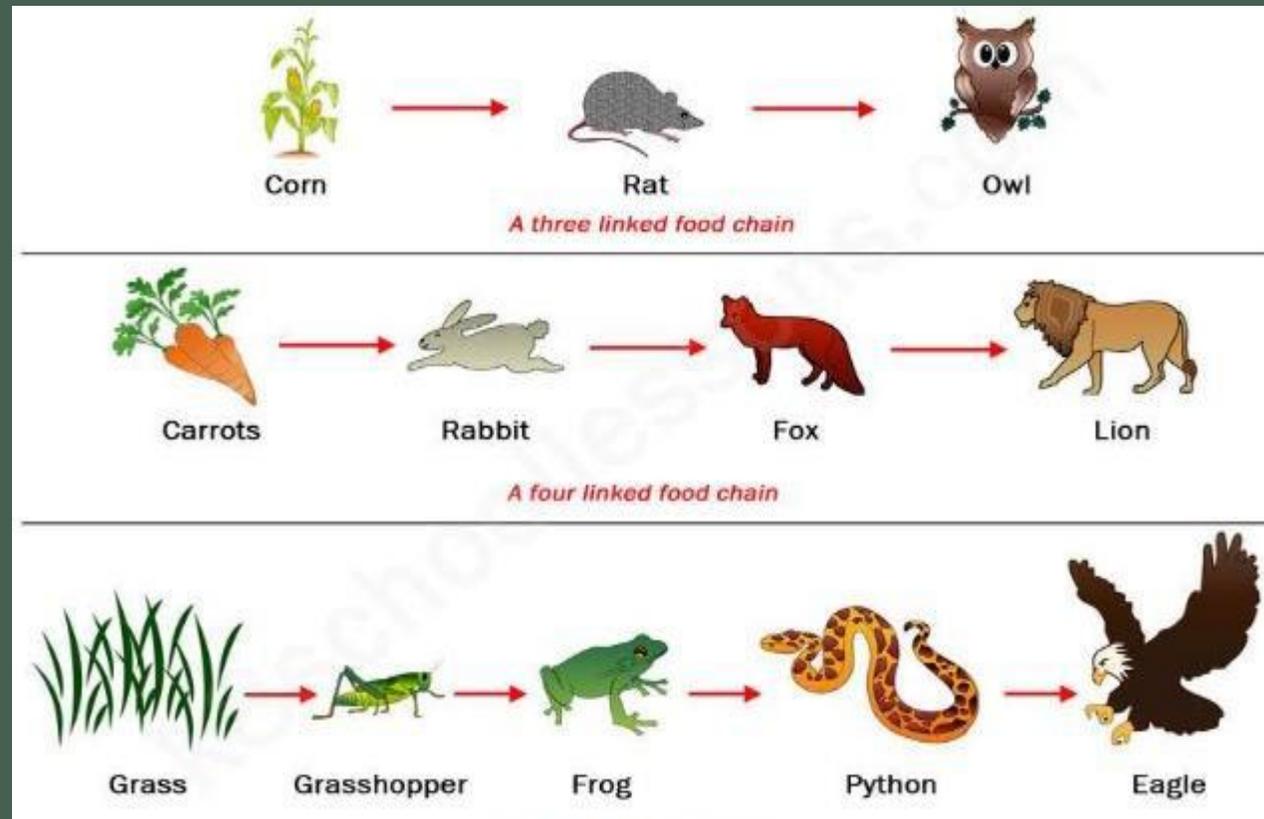
In nature two main types of food chains have been distinguished:

- I. Grazing food chain
- II. Detritus food chain

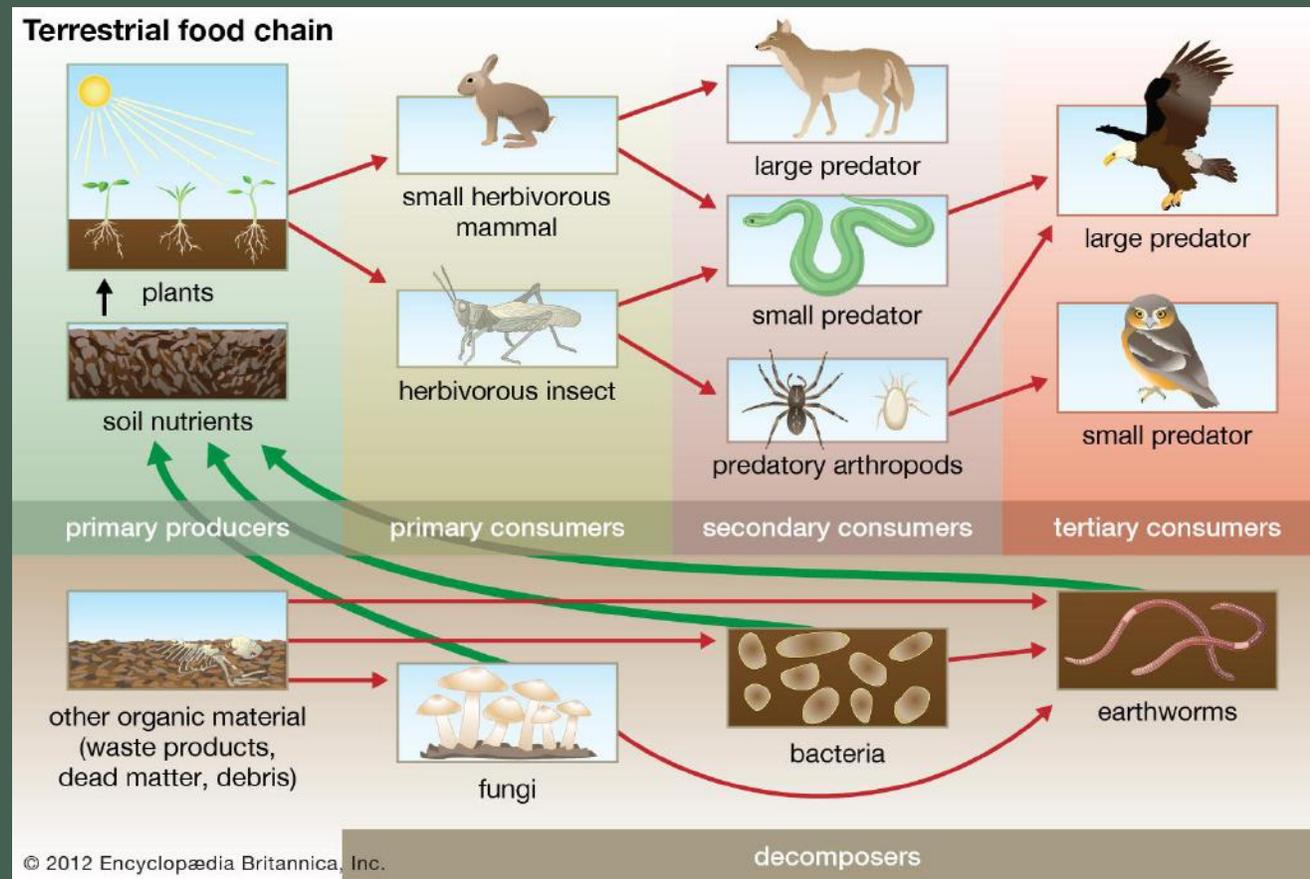
GRAZING FOOD CHAIN

- The consumers which start the food chain, utilizing the plant and plant parts as their food , constitute the grazing food chain.
- The food chain begins from green plants at the base and the primary consumers are herbivores.
- In terrestrial ecosystem grass is eaten up by caterpillar, which is eaten up by lizard and lizard is eaten by snake.
- As in aquatic ecosystem phytoplanktons (primary producers) is eaten up by zooplanktons which is eaten by fishes and fishes are eaten by pelicans

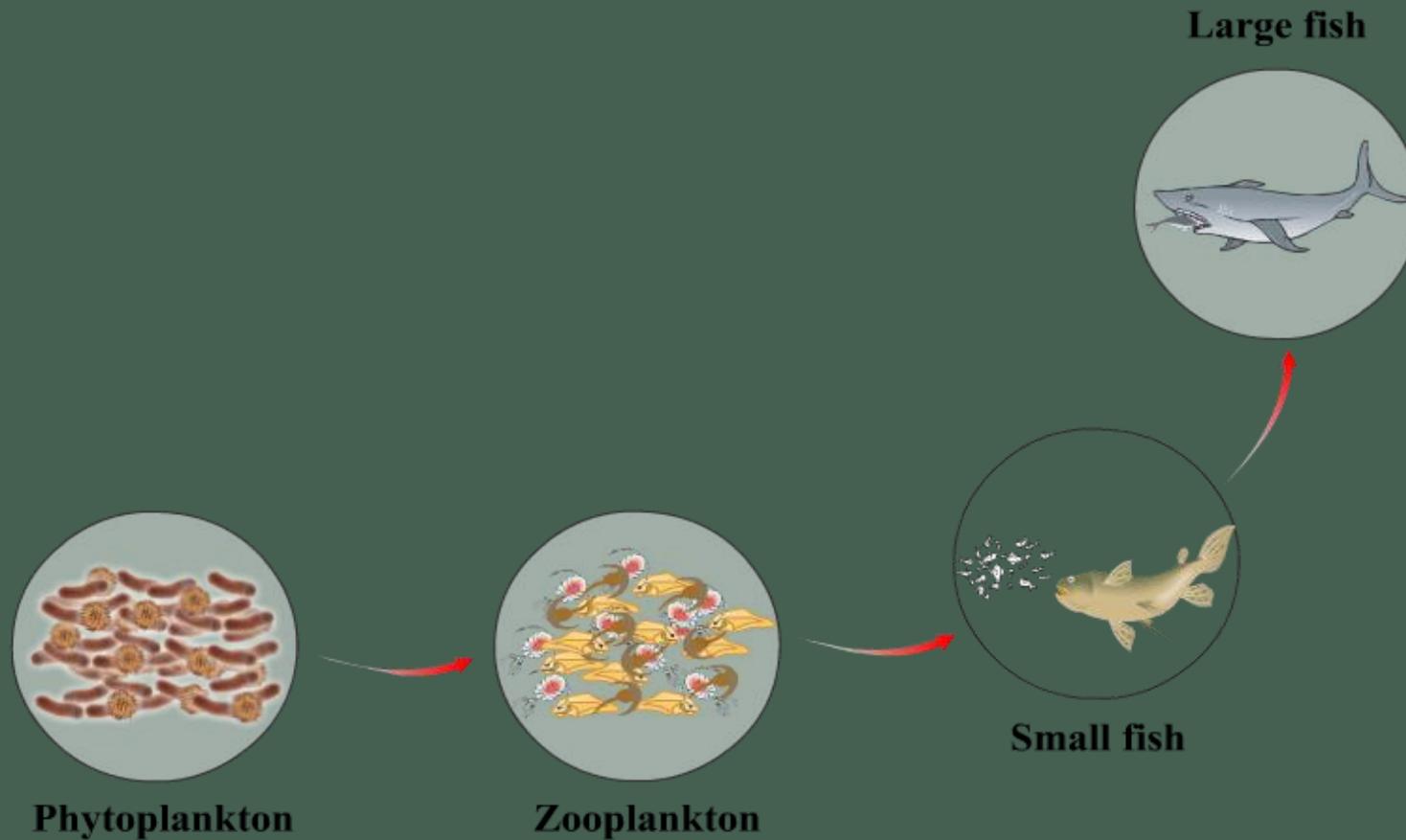
GRAZING FOOD CHAIN



TERRESTRIAL FOOD CHAIN



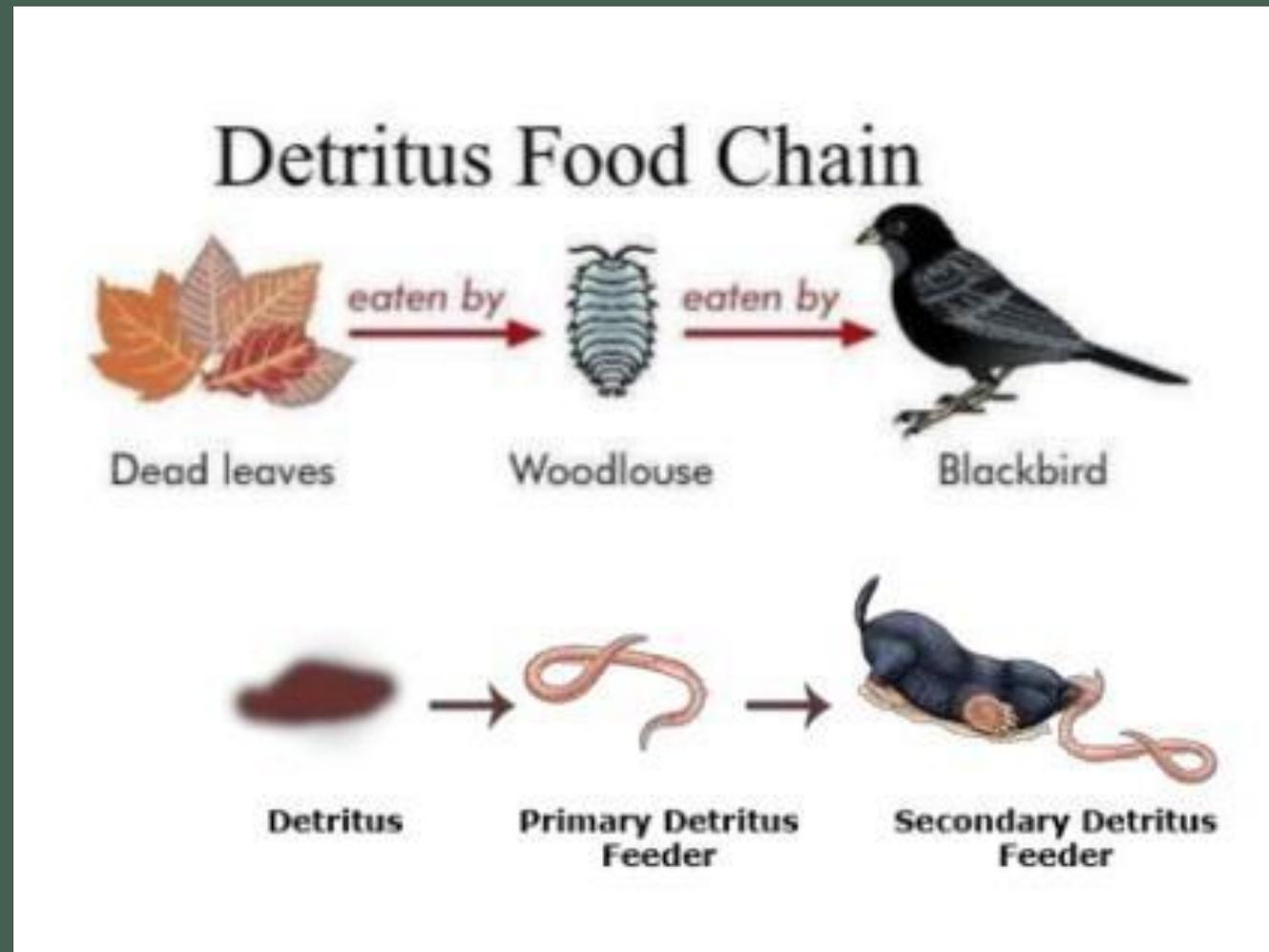
AQUATIC FOOD CHAIN



DETRITUS FOOD CHAIN

- It starts from dead organic matter of decaying animals and plant bodies consumed by the micro-organism and then by detritus feeding organism called detritivores or decomposers and to other predators.

DETRITUS FOOD CHAIN



CONCLUSION

- The distinction between these two food chains is the source of energy for the first level consumer. In the grazing food chain the primary source of energy is living plant biomass while in the detritus food chain the source of energy is dead organic matter or detritus . The two food chains are linked. The initial energy source for detritus food chain is the waste materials and dead organic matter from the grazing food chain.