

UNDERSTANDING THE ENVIRONMENT

- **EARTH – The only life supporting planet in the solar system.**
- **Life exists on earth only in the BIOSPHERE (which is a very thin layer around the earth).**
- **To preserve life on earth – protect all life support systems.**
- **Understand the functions and interrelationships of these life support system in the environment.**


ECOSYSTEM

Interactions between all organisms (plants, animals, microorganisms and human beings) as well as physical surroundings constitute the ECOSYSTEM

COMPONENTS OF THE ECOSYSTEM

- **ABIOTIC – Non living or physical factors**
(air, water, temp., humidity, rain, soil, minerals etc.)
- **BIOTIC – Living organisms – plants, animals.**

GARDEN AS AN ECOSYSTEM

- **BIOTIC COMPONENTS** – Different types of plants, grasses, flowering plants.
Animals – frogs, insects, birds.
- INTERACTION
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- **ABIOTIC COMPONENTS** – Soil , minerals, water, air, temp. which affect growth, life and activities of these organism.

TYPES OF BIOTIC COMPONENTS

PRODUCERS OR AUTOTROPHS

(prepare their own food) eg. green plants, bluegreen algae, certain bacteria.

CONSUMERS OR HETROTROPHS OR PHAGOTROPHS

(depend on other organisms for food)

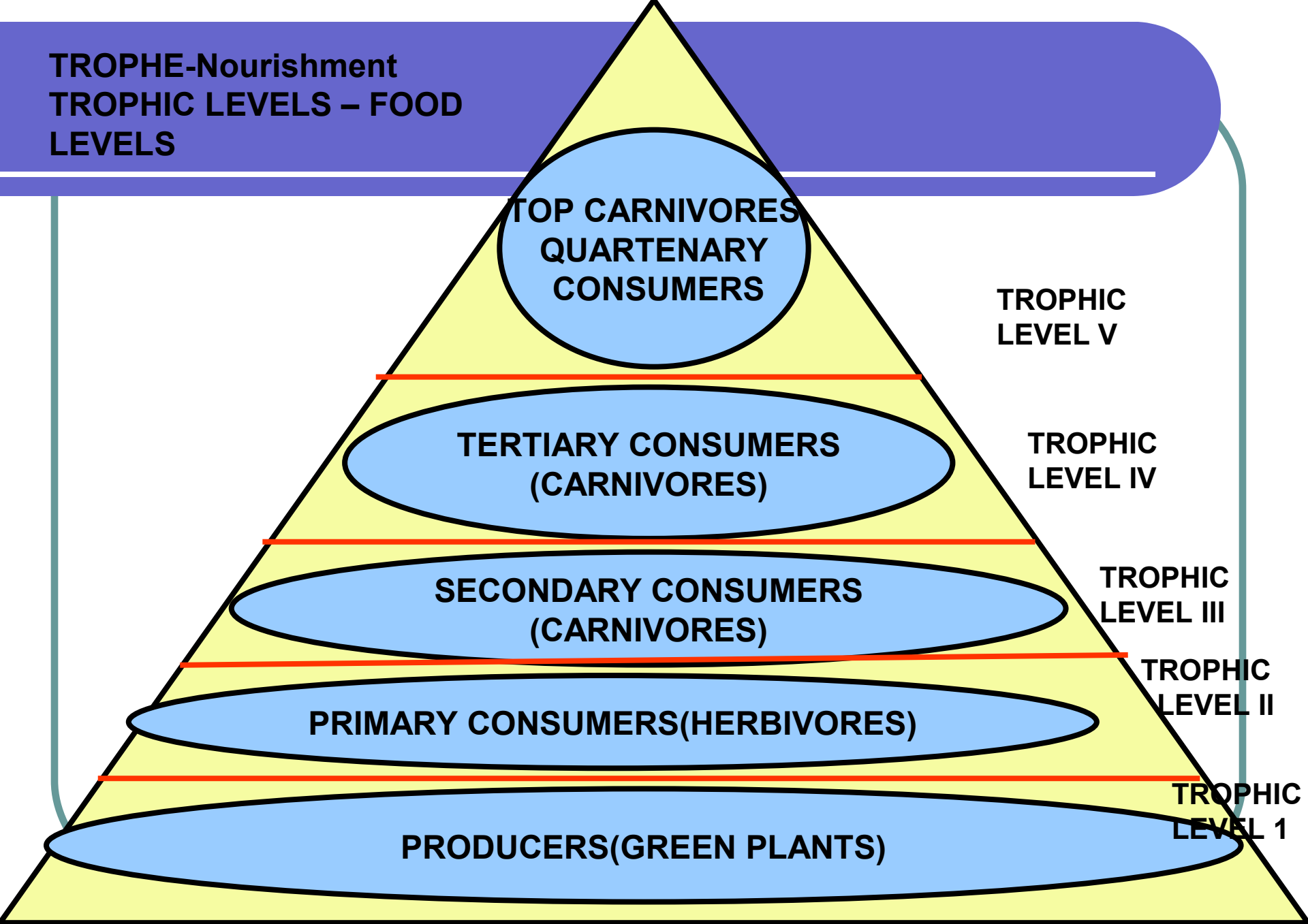
CATEGORIES OF CONSUMERS

- **PRIMARY CONSUMERS** (eat green plants)
also called **HERBIVORES** – goat, cow and insects
- **SECONDARY CONSUMERS** (animals which eat herbivores)
eg. birds which eat grasshoppers.
- **TERTIARY CONSUMERS** (organisms which eat secondary consumers)
also called **TOP CARNIVORES** eg. Lion, Tigers etc.
- **OMNIVORES** – Flexible food habits
(eat both plants and animals)

WHAT HAPPENS TO THE DEAD

- **Continuous breaking up of dead organic matter in the ecosystem by DECOMPOSERS eg. bacteria fungi**
- **Also called SAPROTROPHS OR REDUCERS.**
- **Some are called SCAVENGERS.**
- **Some are DETRIVORES (DETRITUS FEEDERS) eg. earthworms, soil insects – feed on detritus or decomposing organic matter.**
- **By products of DECOMPOSITION**
 - Water**
 - Co₂**
 - Phosphates**
 - Some organic compounds.**

TROPHE-Nourishment
TROPHIC LEVELS – FOOD
LEVELS



FOOD CHAIN

- A sequence of organisms that feed on one another form food chain.

Activity

Write the aquatic organisms in order of who eats whom and form a chain of at least three steps.

