4.3 HABITAT AND ORGANISM

Habitat is the physical environment in which an organism lives. Each organism has particular requirements for its survival and lives where the environment provides for those needs. The environmental requirement of an elephant would be a forest. You would not expect an elephant in the ocean nor would you expect a whale in the forest? A habitat may support many different species having similar requirements. For example, a single ocean habitat may support a whale, a sea-horse, seal, phytoplankton and many other kinds of organisms. The various species sharing a habitat thus have the same 'address'. Forest, ocean, river etc. are examples of habitat.

The features of the habitat can be represented by its structural components namely (1) space (2) food (3) water (4) and cover or shelter (Fig. 4.2).

Earth has four major habitats-(1) **Terrestrial** (2) **Freshwater** (3) **Estuarine** (Where rivers meet the ocean) and (4) **Ocean**. The human gut is the habitat of a tapeworm and the rotting log a habitat of a fungus.

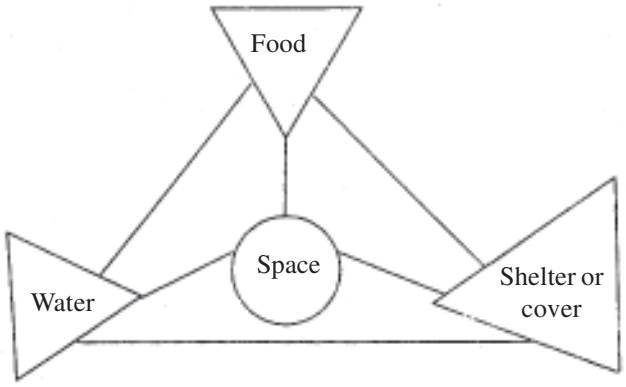

Fig. 4.2: *Structural components of a habitat*

4.4 NICHE AND ORGANISM

In nature, many species occupy the same habitat but they perform different functions. The functional characteristics of a species in its habitat is referred to as "**niche**" in that common habitat. Habitat of a species is like its 'address' (i.e. where it lives) whereas niche can be thought of as its "profession" (i.e. activities and responses specific to the species). **The term niche means the sum of all the activities and relationships of a species by which it uses the resources in its habitat for its survival and reproduction.**

A niche is unique for a species while many species share the habitat. No two species in a habitat can have the same niche. This is because if two species occupy the same niche they will compete with one another until one is displaced. For example, a large number of