

Date - 15-08-2021
online class

Department of Botany B.Sc - II Hons. E. Copy.
Dr. Sunil Pandit paper - III Ecology Time - 9:30 - 10:30

T. J. College, Ara, Group - B

Question → Define ecology? Discuss its aim and scope?

Ans → Definitions → The organism and their environment in nature are inter related, interdependent and mutually reactive to each other. They are not separable from one another. Both the components are studied together in ecology. The term Ecology was coined by combining two Greek words oikos, meaning dwelling place or house and logos meaning the study or knowledge to denote relationship between the organism and their environment, Andrews (1961), Petrides (1968) and Krebs (1972) defined it as the scientific approach to the welfare of living things regulating their distribution, abundance, reproduction and evolution Odum (1969) put forth a new definition and in his own word - Ecology is the study of the structure and function of nature. R. Murrill (1967) defined aim and scope of plant ecology.

Approaches to Ecology → The various definition of Ecology make it quite clear that the study of nature involves the study of plants, animal and their environment. Therefore approaches for ecological structure may be divided into following heads:-

- (i) Botanical - It deals with the relationship existing between plants and animals.
- (ii) Zoological → This approach deals with animals, plants and the habitat. Here animals remain the main object.
- (iii) Biotic → This approach comprises relationship between plants and animals and environment.
- (iv) Habitat → This approach treats with habitat as a main aspect and organism as secondary aspect or inhabitants.
- (v) Productivity → The main emphasis is given on production or yield or crop production.
- (vi) Population studies → In this approach the relationship of vegetation or plant communities and their environment is studied.
- (vii) Ecosystem → The emphasis is given on the studies of flora and fauna of a particular area and their interaction with the environment.
- (viii) Gene ecology → It is concerned with the genetic make up of a species or population in relation to environment.
- (ix) Paleocology → In this approach the study of organism of past age is made to trace the gap in the evolutionary line.