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**MEANING, SCOPE AND SIGNIFICANCE OF BIOGEOGRAPHY**

**Biogeography – Meaning**

Biogeography is the study of the geographic distribution of plant and animal species and ecosystems over space and time. Its scope is the entire biosphere from the beginning of life.

Organisms and biological communities often vary in a regular fashion along geographic gradients of latitude, elevation, isolation and habitat area. Biogeography as a science is the synthesis of concepts and information from geology, physical geography, evolutionary biology, and ecology.

As our climate changes and the sixth great extinction transpires, vital biogeographic research reveals changing dispersal patterns of species and any physiological and ecological constraints on their movement. Biogeography also provides better understanding of evolutionary time frames and global spatial scales involved in climate changes throughout geologic time.

Biogeography, the study of the geographic distribution of plants, animals, and other forms of life, is concerned not only with habitation patterns but also with the factors responsible for variations in distribution. Biogeography is an emerging field which is related to Ecology. It studies the distribution and relationship of plants and animals over geographical regions.

**Scope of biogeography:**

Biogeography, in its broadest sense, attempts to understand the interactions between and among the environment, animals, plants and man, all of which constitute the sub-systems of the global ecosystem. The main scope of biogeography is as follows:

* To examine, by means of experimental analysis, the relationship between complex ecological systems and propagation areas e.g. in a forest, grassland, pond or estuary.
* To analyse the spatial and temporal affinities between individual organisms and populations.
* To evaluate the ecological potential of the area for a species of plant and animal. The potential may be influenced by abiotic factors like soil, relief, amount of nutrients present in a given area, climatic conditions of temperature, rainfall and moisture or by biotic factors like the methods of dispersal of that species, behaviour towards environment, reproductive rate, adaptations to environment etc.
* To measure the anthropogenic factors which are responsible for the growth and extinction of certain species in a region.
* To explore the historical reasons of the patterns of biotic dispersal in the past which to a large extent influence the present distributional pattern as well.

**Significance of Biogeography**

Biogeography is the study of the distribution of plants and animals on the earth surface with respect to space and time.

Since geography is the study of the earth as the home of man, the study of biogeography serve as a useful tool for the conservation of natural resources.

Biogeography helps the geographer to properly understand how climate patterns affect the distribution of plants and animals.

The geographer comes to understand the tolerance level of different species of plants and animal species on the earth surface.

The study of biogeography in Geography enables us to understand the impact of human activities on the environment.