

study time

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Dr. Rajesh Kumar, Assistant Professor and Head, U.G. Department of Zoology, D. K. College DUMKHAM (Buxuki), Noida for B.Sc part 3rd, paper V 12.

Q:- Write Notes on Zoogeographical Realm of their Biogeographies and climatic peculiarities.

Ans: Meaning of Zoogeographical Realms:

On the basis of presence and absence of several organisms, the earth can be divided into some regions. These regions are called realms.... Sclater (1857) divided the geographical areas of the earth into six parts, on the basis of the distribution of birds.

Sclater (1857) was the first one to give concepts of zoogeography and divided the continental masses into six realms based on his studies on

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the bird fauna under two creation or centres of creation, namely, Palaearctica (Cold world) and Neogeomina (New world).

- Cretatio Palaearctica (Cold World)
- Realms Palaearctic (Temperate Eurasia)
- AETHIOPIAN (West paleotropical). Africa.
- INDIAN (Middle Paleotropical). Tropical Asia.
- AUSTRALIAN (East Paleotropical). Australia, New Guinea, Tasmania.

Cretatio NEOGEOMINA (New world)

Realms NEARTIC (North America). Greenland, North America up to Mexico.

NEOTROPICAL (South America). South America south of Mexico.

T.H. Huxley (1868) grouped different regions into 3 divisions as follows:

NEOGEA (Neotropical).

NOTOGAEA (Austroalioan).

ARCTOGAEA (Rest of the world)

A.R. Wallace (1876), who is considered father of modern zoogeography agreed with Sclater's classification but proposed of name ORIENTAL instead of INDIAN and AFRICAN instead of ETHIOPIAN regions because the earlier names represented countries and not the zoogeographical regions.

The widely accepted (1876), who is considered father of modern zoogeography classification of land masses into regions is given below which is based on Wallace (1876) and Darlington (1957).

1. Region MEGAGAEA

1. Region PALEARCTIC (Europe)

Russia, Mediterranean).

2. NEARCTIC (North America up to the middle of Mexico).

3. AFRICAN (= ETHIOPIAN) (Africa south of Sahara).

4. ORIENTAL (Tropical Asia south of 30° latitude).

2. Realm NEOGEEA

5. Region NEOTROPICAL (South America, tropical Mexico and Caribbean Islands).

3. Realm NOTOGEEA

6. Region AUSTRALIAN (Australia, Tasmania, New Guinea and New Zealand).

Meaning of zoogeographical Realms:

On the basis of presence and absence of several organisms, the earth can be

divided into some regions. These regions are called realms. Several scientists proposed several schemes of realms. P.L. Sclater (1857) divided the geographical area of the earth into six parts on the basis of the distribution of birds.

After that, Alfred Russel Wallace in 1876 published a paper on zoogeographical realms. He retained the 'six area concept' of Sclater, but included in his study all the terrestrial vertebrates and invertebrates. The only change he made was in renaming the Indian region of Sclater to Oriental region.

Types of zoogeographical Realms

- Palearctic Realm.
- Nearctic Realm.