

⑤ Prof ANIL KUMAR (zoology)

B.Sc HONS - Part - III Paper - VII

Topic : - Characteristic fauna of Australian region.

Prof ANIL KUMAR

Associate Professor (zoology)

R.R.S College MCKHMA (P.P.U)

**Q.1. Give an account of characteristic fauna of Australian region.**

**Ans. Geographic Limits :** It includes Australia, Newzealand, New Guinea, Tasmania, Moluccas and neighbouring islands. The Region has no land connection with any other regions.

**Climatic Conditions :** Australian Region is partly tropical and partly temperate. New guinea is tropical and is mostly covered with rain forests; the northern part of Australia is tropical but most of the interior is arid. Tasmania is cool and temperate.

**Fauna :** The vertebrate fauna of Australian Region is very thin. It lacks both the variety as well as the number of families, but it has several unique genera. The most peculiar feature is the absence of higher placental mammals and it contains many primitive forms. Marsupials and Monotremes are found only in this region.



**Fishes :** Australian freshwater fishes are Osteoglossids and Neoceratodus but both have restricted distribution

**Amphibians :** Amphibians are few. The common toads and tailed amphibians are absent. The Australian representatives are frogs (*Hyla* and *Rana*).

**Reptiles :** Australian reptiles are moderately varied and only two families are exclusive, Crocodiles, turtles, geckos, skinks, varanus, typhloos, pythons, some Colubrids occur in New Guinea and parts of Australia. Pythons and piting tiger snakes are abundant.

**Birds :** Bird fauna is abundant having 58 families. About 44 families are more or less widely distributed over the world. Two families are divided between Australia and Oriental regions; but 12 are exclusive forms.

Trogon and kingfishes, hawks, cuckoos, pigeons and parrots are very numerous. The pigeons and parrots have reached their maximum diversity. There are three exclusive families of parrot and cuckoos. Loris and Pigmy parrots. Frog mouths, Wodwallows, Flower peckers and Megapodes are shared with Oriental Region, but pheasants. Finches, Barbets and Woodpeckers are absent. Total 10 families of birds are exclusive. These are :

- (i) Cassowaries (ii) Emus (iii) Honey suckers (iv) Lyre bird
- (v) Bower birds (vi) Legendary birds of paradise (vii) Megapodes
- (viii) Owlet Frogmouths (ix) Flower peckers (x) Bell magpies and
- (xi) Scrub birds.

**Mammals :** The mammalian fauna of Australian Region is characterised by the complete absence of higher Eutherian mammals. There are a few monotremes but several families of marsupials.

Echidna and Ornithomys, Bandicoots, Wombats and Phascogale are the six marsupial families. There are six families of insectivorous bats and few fruit bats. Mice. Australian dog and European rabbit have been introduced into this region. In addition Phalanger family is represented by opossums, squirrels and flying phalangers.

Thus the Australian fauna is remarkable for its poverty of freshwater fish, amphibians and reptiles and for the uniqueness of its mammals. Australian Region has little in common with Ethiopian Region but shows close affinities with Oriental Region.

**Subregions :** Australian subregion has been divided into following four subregions— 1. Austro — Malayan 2. Australian 3. Polynesian 4. Newzealand.

**1. Austro-Malayan Subregion :** This subregion comprises of all the islands of Malayan Archipelago which are not included in the Oriental Region together with New Guinea the Moluccas and the Solomon island. This subregion is characterised by 130 families of terrestrial vertebrates of which 4 are peculiar. These are crowned pigeon and fly river turtles both confined to New Guinea and two little known, Amphibian families, Ceratobatrachidae and Genyohryinae from the Solomon island and Sudest island respectively. In New Guinea, three marsupial genera are peculiar namely (1) *Dendrogale* which are remarkable for being chiefly arboreal in their habits and are represented by 5 species. (2)



Dasyuridae or native cat represented by species and (3) True flying phalangers represented by one species only. Birds of paradise, honey eaters, bower birds, cassowaries, cuckoos, shrikes and fruit eaters are abundantly found in this subregion. In New Guinea and the neighbouring island the amphibians, narrow mouthed toads and three frogs are characteristic.

**2. Australian Subregion :** This subregion comprises of the whole of Australia and Tasmanian. It is represented by 98 families of Terrestrial vertebrates of which 15 are of mammals, 67 of birds, 13 of reptiles and 3 of amphibians. Of these, six families of wombats, marsupial moles, duckbills, scrub birds, lyrebirds and Emus are confined of this subregion. The subregion is known as the home of marsupials. Of the 44 known genera of marsupials, 34 are confined to this subregion. The avian fauna too is peculiar though only 3 families are confined to this subregion but the proportion of peculiar species is much larger than in any other subregion well as in any part of the world. The tailed amphibians are altogether absent.

The characteristic but nonpeculiar fauna of this subregion includes Bandicoots, Thylacines, Kangaroos, Honey-eaters, Bowerbirds, Creepers, Bustards, Quails, Swallows, Shrikes, Cobras, Varanus Lizards and side-necked Tortoises. The Cobras constitute more than two-third of all the snakes found in the subregion.

**3. Polynesian Subregion :** This subregion comprises of the Polynesian and Sandwich island constituting a number of small islands. The Polynesian subregion is characterised for its poor fauna content. Of the 53 families of terrestrial vertebrates, there are of bats, 37 of birds, 9 of reptiles and only two of amphibians. Toothbilled pigeons are confined only to the island of Samoa, Kaga in New Caledonia and Drepanids of Sandwich island.

**4. Newzealand Subregion :** This subregion includes Newzealand, Norfolk island, Auckland, Campbell and Macquarie island. Of the 34 families of terrestrial vertebrates, 3 are of mammals, 27 of bird, 3 of reptiles and one of amphibians. The mammalian families are represented by free-tailed and typical bats, the murids. The five families of birds namely the Xcicides, Nestorids (Nestor parrots), Stringopids (Owl parrots), Apterygids (Kiwis) and Hatterids (Tuatara) are confined to this subregion. Of lizards 12 species are peculiar to this subregion but no snakes and only one frog (*Liopelma*) are confined to this Subregion.

The most interesting flightless bird of Newzealand is Kiwi. It shows a number of primitive characters in its anatomy apart from the reduction of wings. There is one living fossil namely *Sphenodon punctatum* (Reptile) of the family Rhynchocephalidae.