

B. Sc Second year (Honours)

Paper-3

Dr.Mirza Imteyaz Baig

Characteristics of Primates

INTRODUCTION: Primates Characteristics

A diverse group of animals represented by animals such as humans, monkeys, prosimians and apes is known as Primates.

Some Common Characteristics of Primates:

- Dexterous hands
- A generalized skeleton for great physical agility
- Large brain size
- keen vision.
- Mostly Smaller offspring than other animals, who require more attention in their rearing.

Habitats:

- Primarily in the tropical and subtropical regions of the New and Old Worlds.
- Never lived in Australia and most of the islands in the Pacific Ocean.
- Though there are evidences that around 55-50 million years ago the earliest primates also lived in North America and Europe.

Old World monkey

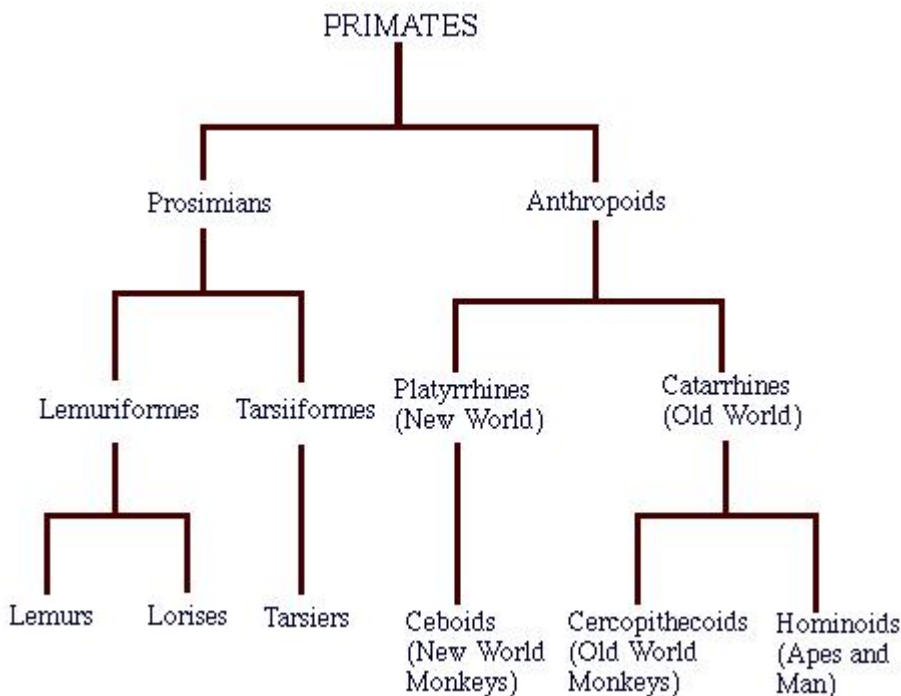
- A group of primates which belong to the super family Cercopithecoidea.
- Native to Africa and Asia.
- Inhabiting a range of environments from tropical rain forest to savanna shrub land and mountainous terrain
- Cercopithecinae is mainly African species.
- Colobinae the second subfamily includes Asian genera and African colobus monkeys.

New World Monkey:

Found in Central and South America.

- Divided into four subfamilies of primates i.e.
- A) Cebidae, B) Aotidae, C) Pitheciidae D)Atelidae.
- Different noses on New World Monkeys are the most commonly used feature to distinguish from Old World Monkeys.

CLASSIFICATION OF PRIMATE:



- Primates are divided into two sub-orders ie. lower primates or Prosimii and the higher primates or Anthropeida.
- This division is mainly based on the brain size of both the orders.

Brains sizes of lower primates have similar size to other mammals while higher primates have large brain size relative to body size.

Characteristics of Primates

All primate species possess adaptations for climbing trees, as they all descended from tree-dwellers. This arboreal heritage of primates has resulted in adaptations that include, but are not limited to: 1) a rotating shoulder joint; 2) a big toe that is widely separated

from the other toes and thumbs, that are widely separated from fingers (except humans), which allow for gripping branches; and 3) stereoscopic vision, two overlapping fields of vision from the eyes, which allows for the perception of depth and gauging distance. Other characteristics of primates are brains that are larger than those of most other mammals (larger brain/body ratio than similar-sized non-primates), claws that have been modified into flattened nails, typically only one offspring per pregnancy, and a trend toward holding the body upright.

The Order Primates is divided into two groups: prosimians and anthropoids. Prosimians include the bush babies and pottos of Africa, the lemurs of Madagascar, and the lorises of Southeast Asia. Tarsier, also from Southeast Asia, show some prosimian-like and some anthropoid-like features. Anthropoids include monkeys, apes, and humans. In general, prosimians tend to be nocturnal (in contrast to diurnal anthropoids, excluding the nocturnal Aotus, owl monkey) and have a smaller brain/body ratio than anthropoids.