

INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY

CORE-1

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BIOLOGICAL ANTHROPOLOGY

PRIMATE CHARACTERISTICS

WHO ARE PRIMATES???

Primates:-

- ❖ The primates have prehensile hands and feet for arboreal life.(prehensile-able to hold things or holding capacity)
- ❖ Primates possessed well-marked **precision grip with keen and stereoscopic vision.**
- ❖ Two mammary glands are situated on the thorax and they are pectoral in position.
- ❖ They possess highly developed and convoluted brain. A high brain in context to their body ratio is the specific characteristic feature.
- ❖ The females tend to bear only one baby at a time.
- ❖ Primates have developed an increasing ability for adaption to diversified ecological circumstances.

Carl Linnaeus made a classification of the primates based on modern taxonomy.

J. F Blumenbach is known as the father of physical anthropology classified the Primates in to two groups-the **bimanus and the quadrumanus** in 1771.

The man was included in **the first group and apes**, Monkeys and lemurs are the second group. Generally the primates are divided in to two categories one is human primate and other is a non-human primate.

The non-human primates are mostly confined to the equatorial belt.

Primates have some specific characteristics which distinguish them from others.

CLASSIFICATION OF PRIMATES GIVEN BELOW-

Primate (ORDER)



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graph TD; A[Primate (ORDER)] --> B[Prosimii]; A --> C[Anthropoidea (Suborder)]; B --- D[Tupaiiformes]; B --- E[Tarsiiformes]; B --- F[Lorisiformes]; B --- G[Lemuriformes];
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The diagram illustrates the taxonomic classification of Primates. At the top level is the Order Primate, which is divided into two main groups: Prosimii and Anthropoidea (Suborder). The Prosimii group is further subdivided into four subgroups: Tupaiiformes, Tarsiiformes, Lorisiformes, and Lemuriformes. Each level is represented by a box, with arrows indicating the hierarchical relationships.

Prosimii

Anthropoidea (Suborder)

Tupaiiformes

Tarsiiformes

Lorisiformes

Lemuriformes

ANTHROPOIDEA

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graph TD; A[ANTHROPOIDEA] --> B[Platyrrhine]; A --> C[Catarrhine]; B --> D["Ceboidea  
New world monkeys  
(Cebus & Marmoset)"]; C --> E["Cercopithecoidea  
Old world monkeys  
(Macaque & Baboon)"]; C --> F[Hominoidea man];
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Platyrrhine

Ceboidea

New world monkeys
(Cebus & Marmoset)

Catarrhine

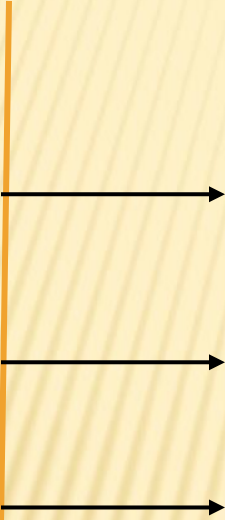
Cercopithecoidea

Old world monkeys
(Macaque & Baboon)

Hominoidea man

HOMINOIDEA MAN

Hominoidea Man



Hylobatidae (Gibbon)

Pongidae (Gorilla, Chimpanzee, Orang-utan)

Hominidae (Man)

Characteristics of Primate:-

- ✓ The primates **have prehensile hands and feet for arboreal life.**
- ✓ The digits of both hands and feet are provided with flat nails.
- ✓ Free mobility of digits is marked.
- ✓ The thumb and the great toes are more or less non-opposable.
- ✓ Primates possessed well-marked **power grip and precision grip.**
- ✓ Presence of orbits or bony eye sockets.
- ✓ They use their eyes more than their noses.
- ✓ Teeth are means for omnivorous habit.

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- ✓ Keen and stereoscopic vision is found among primates.
 - ✓ There is an increased eye-hand coordination and manual dexterity.
 - ✓ Structurally and functionally reduction of sense of smell.
 - ✓ Two mammary glands are situated on the thorax and they are pectoral in position.
 - ✓ Growth and maturation periods have been longer compared to other animal groups.
 - ✓ A tendency towards bipedalism is seen.
 - ✓ They have got year round fertility rather than seasonal sex behavior.

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- ✓ The primates have pendulous penis.
 - ✓ They possess highly developed and convoluted brain. A high brain in comparison to body ratio is the specific feature.
 - ✓ Multiple births are rare. The females have a tendency to bear only one baby at a time
 - ✓ The gestation period has been lengthened.
 - ✓ The natural life span has been markedly increased.
 - ✓ Primate infants have a long physical and emotional dependence on their mothers.

PROSIMIANS

✘ PROSIMIANS:-

- ✘ These are some general characteristics of prosimians
- ✘ Prosimians are distributed in the tropical forests of Old World Africa, south and south-east Asia, and the Philippines.
- ✘ They are arboreal and nocturnal. Their body size is usually that of a cat. The mouth is projected and pointed as a fox-like muzzle.
- ✘ Multiple breast pairs are seen.
- ✘ Hands and feet are adopted for grasping and very mobile.
- ✘ Lower incisors and canines are specially modified forming a tooth comb.
- ✘ The tail is not prehensile, its function is as a balancing organ.