

Elephant

The Giant in the Wild

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The elephant is an intelligent herbivorous animal, which is scattered mainly in the regions of Africa and Asia. The average life span of the elephant is about 70-80 years (In wild) and an individual consumes between 150 and 170 kg of vegetation daily. The 12th of August is named as "The World Elephant Day".

Who is an elephant?

According to tree of evolution, Palaeomastodon who lived 38 million years ago can be considered as the oldest ancestor of the elephant. The Mammoth (who is very similar to the elephants) lived in the ice age of this planet and had been extinct before about 10,000 years.

Elephants belong to the taxonomical hierarchy of Kingdom: Animalia, Phylum: Chordata, Class: Mammalia, Order: Proboscidea, Family: Elephantidae, Subfamily: Elephantinae

Elephants can be classified into two main genere; *Loxodonta* and *Elephas*. African elephants belong to the genus *Loxodonta*, while Asian elephants are categorized into the genus *Elephas*. African bush/savanna elephant (*Loxodonta Africana*) and the African forest elephant (*Loxodonta cyclotis*) are main



African Bush Elephant



Asian Elephant



African Forest Elephant

species of African elephants. Similarly, there are three subspecies among Asian elephants; (*Elephas maximus*); *Elephas maximus maximus* (in Sri Lanka), *Elephas maximus indicus* (in Asia) and *Elephas maximus sumatranus* (in the islands of Sumatra).



What is meant by the dimorphism of elephants?

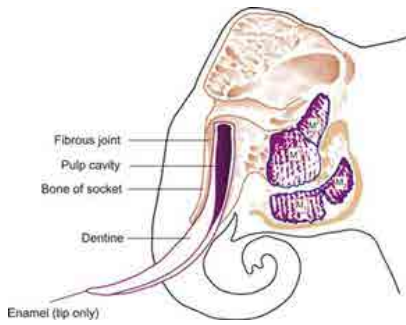
There are two distinct forms (Sexually dimorphic) of elephants known as bull and cow. Generally, the bull (male) elephant is larger and more weigh heavier than the cow (female) elephants.

Bull elephant	Cow elephant
Large and average weight is 5-6 tons	Small and average weight is 2.5-3.5 tons
Has bigger and rounded forehead	Has smaller pointed or square forehead
Tusks are thick and more conical	Tusks (only in African elephants) are less thick and more slender
Heads higher than their shoulders	Heads lower than their shoulders
Abdomen slope downwards from their forelegs to their hind legs	More curved abdomen present.
Has large trunk bases and curves into its hindquarters	Has narrow trunk bases and boxier with vertical hindquarters

What are teeth and tusks?

The elephant is a polyphyodont, which means their chewing teeth replace several times within its lifetime. The dental formula (which indicates half of the dentures in upper and lower jaws) of an adult elephant is $I\ 1/0, C\ 0/0, PM\ 3/3, M\ 3/3$, with a total number of 26 teeth; 2 incisors (I) in the upper jaw + 12 premolars (PM) + 12 molars (M) + 0 canines (C). Some Asian male elephants (tuskers) and African elephants (Both male and female) have elongated incisors which are known as tusks. The $1/3$ of the tusk's cavity is filled by a pulp/fleshy gel which contains nerves, blood vessels and tissues while calcinated dentine is quite hard. When the tusker is getting old, the pulp diminishes and the internal wall of the dentine chipped off and collapsed into the cavity of the tusks. These chips are polished as the pearls, due to the movements of the elephants. One of the main scopes of the smugglers is poaching for the illegal ivory trade and selling elephant tusks and pearls or "Gaja Muthu" to ivory collectors.

Tusks are important to elephants as they use them for; (i) digging for water, salt, and roots, (ii) marking their territory, (iii) moving the trees and branches to clean their pathway, (iv) fighting and defending while attacking and (v) protecting their trunk (The trunk is the muscular proboscis which is made up by elongating the nose and the upper lips. The trunk has up to 60,000 muscles and nostrils are placed at the tip of it).



Amazing behaviors of gentle giants

Most of the female elephants live in a herd while most of the male elephants live alone. The single bull elephant in musth is very aggressive and dangerous. Herds are composed of females and calves and it is led by the eldest female (matriarch). After her death, the next eldest and most experienced female takes over the herd. "Thunpath Rene" or the elephant trio consists of a cow, calf, and a sister or another sibling.

What is musth?

The Asian male elephant is sexually matured at the age of around 15 years, while the African male elephant becomes matured at about 20 years. In contrast, female elephants are sexually matured at young ages (African - around 11 years and Asian - around 9-12 years). The "musth" is accompanied with the increase of testosterone in matured bull elephants. They secrete a fluid from their temporal glands and it may last for about 2-3 months. During this period, males show aggressive behavior and tend to spend more



time with female herds looking for opportunities to mate. During musthing period, fights between the same-ranked bulls take place, but deaths due to such encounters are very rare in the wild.

Allomothering behavior

The elephant is the species that has the longest gestation period of a mammal; 22 months. The she elephant gives birth to mainly one offspring at a time. In 2020, twin birth of elephant was reported at the Minneriya National Park in Sri Lanka and in August 2021 at Pinnawala Elephant Orphanage. The weight of a healthy newborn calf is about 75-115 kg and height is about 2.5-3.5 feet. Generally, a baby elephant consumes 12 liters of milk per day for 2-4 years. The nutrient requirement of the calf is fulfilled by breastfeeding by the mother and other female elephants (allomothers) in the herd.

According to the International Union for Conservation of Nature (IUCN), these beautiful giants have been categorized under "endangered" species.

Youtube

https://www.youtube.com/watch?v=9qR7ky_5XVM