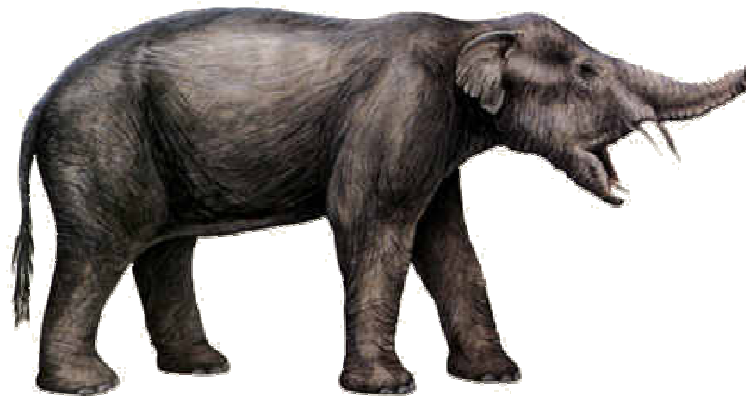


COMPILATION REPORT FOR COLLECTORS OF Mammoths and Mastodons



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Classification of the Proboscidea

Order

Distribution:

About 50 to 60 million years ago, the ancestors of the modern elephant occupied a variety of extreme environments; this includes from tropical rain forests to deserts in both low and high altitudes. Incredibly, with the exception of Australia and Antarctica, the Proboscideans have over time inhabited every single continent on earth.

Proboscideans are a good example of mammals which enjoyed a wide range (North America, Asia, Europe and Africa) in the past, but whose present range is limited only to Africa and Asia. Indeed, there are currently only two species of Proboscidea: *Loxodonta* (African Elephant) and *Elephas* (Asian Elephant). Two other genera, *Mammuthus* and *Mammut*, disappeared from North America about 10,000 years ago, and in South America at that time three genera of Gomphotheres, *Cuvieronius*, *Haplomastodon*, and *Stegomastodon* died out. Those five extinct genera and two surviving genera were the only Proboscideans present in the late Pleistocene or about 50,000 to 10,000 years ago, anywhere in the world. Mammoths were wide spread in Europe, Northern Asia, North America, and central Mexico, but they never penetrated into South America. Mastodonts were found in North America, but members of the separate taxonomic family of animals popularly called Gomphotheres were only South American Proboscideans. The genus *Elephas* was present in Africa and Asia, but never in the new world.

This does not mean that Proboscidea is a failure only that their role in the biofauna is less now than it was in the past. Indeed, having arisen as early as 50 million years ago and undergone many changes in overall bauplan, the Proboscideans should be considered some of the most successful mammals.

Origin and Evolution:

Elephants and their ancestors belong to the order under which Elephants are classified as the Proboscidea Order. Proboscidea means having a proboscis or trunk. Over the course of evolutionary history, it has been estimated that there have been about 352 species and subspecies of which only have are recognized and valid today.

The family Elephantidae is the root from which the mammoth, Asian elephant and African elephant came from. Interestingly, the Asian elephant is more closely related to the extinct mammoth than to the African elephant.

The trend in the evolution of Proboscidea has generally been an increase in size, reflected in longer limb bones and larger skulls and teeth. As Proboscideans have grown taller, their trunks have grown larger. Because their heads are farther from the ground, nature has compensated for this height by developing the trunk as a necessary tool. For such large animals, the trunk has provided a fast and convenient way of reaching food and water on the ground, instead of having to bend down and put themselves in a vulnerable position. A long trunk has enabled Proboscideans to investigate the ground as well as eat and drink, while still watching and listening for approaching danger. As a result, nature has selected in favor of longer trunks.

The following categories apply to the tree in which the elephant has been placed. It is part of the Animalia kingdom, Chordata phylum, Vertebrata subphylum, Mammalia class, and Proboscidea order.

It is believed that 50 to 60 million years ago, mammals approximately the size of current day pigs, were the roots from which the Proboscideans evolved from. Interestingly, based on both morphological and biochemical evidence. It is agreed that the manatees, dugongs, and hyraxes are the closest living relatives of elephants today. It is incredible to believe given the vastly different sizes, external appearance and the fact that they occupy completely different habitats.

The earliest known member of the Proboscidea order are the moeritheres. They are a pig sized creature that lived in northern Africa between 55 and 60 million years ago. A little later the Palaeomastodons existed between 25 and 40 million years ago. A little later the Paleomastodon, existed between 25 and 40 million years ago, branched off and were the first known descendants of the lineage that led to the two present day species of elephants. Interestingly, the mammoth, Asian elephant and African elephant originated in Africa. It was only the African elephant that ended up staying and evolving to the animal we know today solely in Africa. The mammoth became extinct as recently as 5000 years ago; fossil records indicate that the hunting by Man was a factor in eliminating the mammoth, as well as global warming.