

Extinction of Quaternary Mammalian Habitats of Megafauna in Sabaragamu Basin, Sri Lanka

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The Quaternary period of the geographic history of earth includes two geologic epochs *viz.*, the Pleistocene and the Holocene. Both epochs divided the faunal stages and human cultural phases based on climate and sea level changes that took place during these periods. The Quaternary ice age began roughly about 2.58 MYO with cool and dry climate conditions. The extinct Australopithecines and many other extinct genera of mammalian mega fauna appeared during this time. Thus, the Quaternary period shows the extinctions of numerous predominantly larger, especially mammalian mega faunal species, many of them lived during the transition from the Pleistocene to the Holocene epoch. The debate on the demise of the mammalian megafauna is often characterized by two highly polarized points of view: (1) climate-induced extinction; and (2) human-induced extinction. In Pleistocene period most parts of the Northern Hemisphere of earth were covered with glaciers creating a cold climate. Due to this glacial formation the main sea level was much lower than it is today. The low sea level facilitated the connection of Sri Lanka with the Indian mainland with a land bridge. Therefore, a number of mega fauna and micro fauna were able to cross to Sri Lanka from India along this land bridge. The last land bridge was emerged around 7500 years BP. During the Pleistocene era Sri Lanka experienced heavy rainfall causing the emergence of rain forest in the country. The heavy rainfall in the Sabaragamu Basin also provided habitats for a number of marsh loving animals including mammals. However, at the end of the Pleistocene epoch, drastic climatic changes were occurred resulting in the extinction of a number of animal taxa. Pleistocene fauna in Sri Lanka is known as Rathnapura Fauna. Their fossils are found in alluvial deposits in the Sabaragamu basins.

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