

Palaeo-Environmental Reconstruction of the Wet Zone of Sri Lanka: A Zooarchaeological Perspective

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Abstract : Sri Lanka has been known as an island which has a diverse variety of prehistoric occupation among ecological zones. Defining the paleoecology of the past societies has been an archaeological thought developed in the 1960s. It is mainly concerned with the reconstruction from available geological and biological evidence of past biota, populations, communities, landscapes, environments, and ecosystems. Sri Lanka has dealt with this subject, and considerable research has been already undertaken. The fossil and material record of Sri Lanka's Wet Zone tropical forests continues from c. 38,000-34,000 ybp. This early and persistent human fossil, technical, and cultural florescence, as well as a collection of well-preserved tropical-forest rock shelters with associated 'on-site' palaeoenvironmental records, makes Sri Lanka a central and unusual case study to determine the extent and strength of early human tropical forest encounters. Excavations carried out in prehistoric caves in the low country wet zone has shown that in the last 50,000 years, the temperature in the lowland rainforests has not exceeded 5°C. When taking Batadombalena alone, the entire seven layers have yielded an uninterrupted occupation of *Acavus* sp and *Canerium zeylanicum*, a plant that grows in the middle of the rainforest. *Acavus*, which is highly sensitive to rainforest ecosystems, has been well documented in many of the lowland caves, confirming that the wetland rainforest environment has remained intact at least for the last 50,000 years. If the dry and arid conditions in the upper hills regions affected the wet zone, the Tufted Gray Linger (*sempiternus priam*), must also meet with the prehistoric caves in the wet zone thrown over dry climate. However, the bones in the low country wet zone do not find any of the fragments belonging to Tufted Gray Linger, and prehistoric human consumption is bestowed with purple-faced leaf monkey (*Trachypithecus vetulus*) and Togue Macaque (*Macaca Sinica*). The skeletal remains of *Lyriocephalus scutatus*, a full-time resident in rain forests, have also been recorded among lowland caves. But, in zoological terms, these remains may be the remains of the Barking deer (*Muntiacus muntjak*), which is currently found in the wet zone. For further investigations, the mtDNA test of genetic diversity (Bottleneck effect) and pollen study from lowland caves should determine whether the wet zone climate has persisted over the last 50,000 years, or whether the dry weather affected in the mountainous region has invaded the wet zone.

Keywords : paleoecology, prehistory, zooarchaeology, reconstruction, palaeo-climate

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