Subfossil lemurs

Subfossil lemurs are lemurs from Madagascar that are represented by recent (subfossil) remains dating from nearly 25,000 years ago to approximately 590 years ago (from the late Pleistocene until the Holocene). They include both living and extinct species, although the term more frequently refers to the extinct **giant lemurs**. The diversity of subfossil lemur communities was greater than that of present-day lemur communities, ranging from as high as 20 or more species per location, compared with 10 to 12 species today. Extinct species are estimated to have ranged in size from slightly over 10 kg (22 lb) to roughly 160 kg (350 lb). Even the subfossil remains of living species are larger and more robust than the skeletal remains of modern specimens. The subfossil sites found around most of the island demonstrate that most giant lemurs had wide distributions and that ranges of living species have contracted significantly since the arrival of humans.

Despite their size, the giant lemurs shared many features with living lemurs, including rapid development, poor day vision, relatively small brains, and lack of male dominance. They also had many distinct traits among lemurs, including a tendency to rely on terrestrial locomotion, slow climbing, and suspension instead of leaping, as well as a greater dependence on leaf-eating and seed predation. The giant lemurs likely filled ecological niches now left vacant, particularly seed dispersal for plants with large seeds. There were three distinct families of giant lemur, including the Palaeopropithecidae (sloth lemurs), Megaladapidae (koala lemurs), and Archaeolemuridae (monkey lemurs). Two other types were more closely related and similar in appearance to living lemurs: the giant aye-aye and *Pachylemur*, a genus of "giant ruffed lemurs".

Subfossil remains were first discovered on Madagascar in the 1860s, but giant lemur species were not formally described until the 1890s. The paleontological interest sparked by the initial discoveries resulted in an overabundance of new species names, the allocation of bones to the wrong species, and inaccurate reconstructions during the early 20th century. Discoveries waned during the mid-20th century, although paleontological work resumed in the 1980s and resulted in the discovery of new species and a new genus. Research has recently focused on diets, lifestyle, social behavior, and other aspects of biology. The remains of the subfossil lemurs are relatively recent, with all or most species dating within the last 2,000 years. Humans first arrived on Madagascar around that time and likely played a role in the demise of the lemurs and the other megafauna that once existed on the large island. Hunting apparently led to a rapid decline in their populations shortly after the arrival of humans; additional factors are thought to have contributed to their ultimate disappearance. Oral traditions and recent reports of sightings by Malagasy villagers have been interpreted by some as suggesting either lingering populations or very recent extinctions.