

**<ARTICLE>****An Ossified Chimpanzee Found in a Tree Nest**

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Among the many natural causes of death, disease probably accounts for more than half of all cases at Gombe National Park in Tanzania (1). This cause of death usually weakens chimpanzees gradually until they finally die. However, dead chimpanzee bodies have never been found before in tree nests, possibly because of their preference for ground near the time of death or the presence of carnivores or scavengers which devour them on the ground.

Since 1995, several surveys have been conducted on a sympatric population of chimpanzees and gorillas within the Petit Loango Reserve in Gabon. These surveys have formed a part of a research project aiming at clarifying what environmental factors accelerate the niche separation between the above two species of apes, what aspects of the niche separation contribute to their behavioral differences, and what ecological differences influence their social organizations.

The reserve is located on the western coast of Gabon and covers an area of 500 km<sup>2</sup>. The area constitutes a complex mosaic of forests, swamps, and savanna surrounded by three hunting areas. The vegetation of the reserve is characterized by a poor THV undergrowth, but there are rich fauna including elephants, buffaloes, hippos, and seven diurnal primate species(2). During the surveys, nests of the chimpanzees were mainly found in the primary forest and the density of chimpanzees was estimated at 0.78 individuals per km<sup>2</sup>(3). The density of gorillas, in

contrast, was estimated at 0.21 individuals per km<sup>2</sup>. Leopard and civet footprints and feces of leopards and civets were found everywhere.

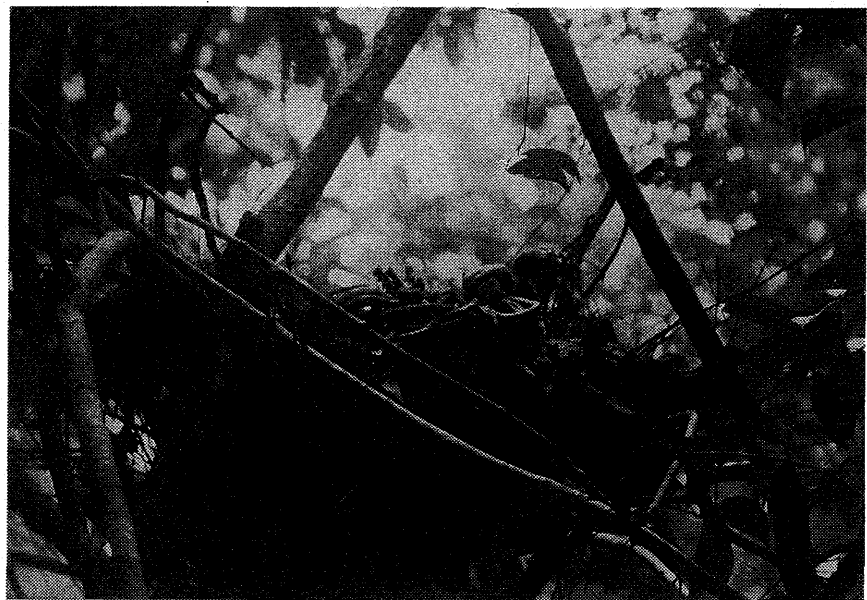
In October 1998, I was involved in an ecological survey on gorillas and chimpanzees. My task was to find fresh nest sites and fecal samples. The survey area covered c. 15 x 2 km<sup>2</sup> along the seashore. I would walk in the forest with a field assistant around the whole survey area.

On the 26th of October, I found an old nest site (c. one month of age) of chimpanzees. The site consisted of three nests in different trees (10m, 6m, and 5m in height) which were located 3-5m away from each other. The former two trees were *Diospyros* sp. and the last one was unidentified (local name: Mogagane).

Under the last tree, a skull and bones (of the right arm, clavicle, and ribs) were found together with a mass of hair (Fig. 1). The rest of skeleton had remained in the nest at a height of 5m. This suggested that the head had fallen out of the nest along with the right arm naturally after ossification.

The chimpanzee was judged to be a middle age male with large canine teeth, and a skull of a large size and shape. No flesh was attached to the skeleton and no signs were detected of it being prey or visited by a scavenger.

Two other tree nests (possibly those of chimpanzees, judging from their small sizes) of



*Fig. 1 Chimpanzee skeleton found in the nest*

two weeks old were located c. 50 m, and four nests (possibly those of gorillas, judging from the feces in them) of six days old were located c. 70 m from the tree with the nest containing the ossified chimpanzee. These animals might have been aware of the dead body, but probably did not touch it.

Why did this male chimpanzee die in the tree nest? Why was his body untouched by carnivores or scavengers? One possible explanation is that the chimpanzee died of a sudden problem (e.g., heart stoppage) by some type of epidemic and that the carnivores or scavengers around the chimpanzee avoided his body to avoid infection by the disease. It is probable that two mates were present at his death, but neither of them touched the body after death ensued.

It was probably a peaceful end to his life.

#### REFERENCES

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