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BIOMASS OF MAMMALS AND ECOLOGY OF SYMPATRIC CERCOPITHECINES IN CHIMPANZEE HABITAT IN THE KALINZU FOREST, UGANDA.

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We conducted a 50-km line-transect census to estimate the mammalian biomass in the Kalinzu Forest. The estimated total primate biomass was 554 kg/km^2, while that of other mammals was 31 kg/km^2. The absence of large herbivores might have decreased the total mammalian biomass in this forest. We estimated the density of diurnal primates in mixed mature forest, *Parinari*-dominated mature forest, and in secondary forest. The group densities of three cercopithecines (*Cercopithecus ascanius*, *C*. *lhoesti*, and *C*. *mitis*) and *Colobus guereza* in three vegetation types showed similar tendencies, with densities higher in the secondary forest than in the two types of mature forest. We investigated factors related to the densities of the three cercopithecines within each vegetation type and concluded that the availability of fruit as food for cercopithecines in the secondary forest was higher than in the two types of mature forest. In particular, the fruit of *Musanga leo-errerae*, a constant, abundant food resource for primates, seemed to play an important role in maintaining the high cercopithecine density in the secondary forest. It has also been pointed out that fruit abundance has a great effect on the behavior of cercopithecines. However, we must understand that environmental factors fluctuate readily over the short term, especially in secondary vegetation. We need to monitor environmental factors continuously to know the relationships between primate behavior and their environment.

Keywords: biomass, cercopithecine, chimpanzee, environmental changes