570

SEASONAL PATTERNS IN REPRODUCTIVE ECOLOGY OF CHIMPANZEES LIVING IN A UGANDAN FOREST FRAGMENT

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The Kasokwa Forest Reserve, near Budongo Forest (Uganda), is a riverine fragment measuring only 78 hectares. Additional community land extends the useable forest to 157 hectares for a community of 16 chimpanzees. Study and protection of these chimpanzees for 10 years reveals new patterns of reproductive and behavioral ecology. The community currently consists of three adult males, four adult females and their young. During the study, 11 infants have been born to five mothers (one no longer in the community). The 11 births occurred July-January; there have been no births in February-June. These findings suggest conception occurred during dry season (driest months are December-February). This seasonal trend is consistent with those observed in chimpanzees of Budongo (Uganda) and Gombe (Tanzania). In those sites, increased occurrence of estrous swellings, sexual activity and, consequently, conceptions are associated with seasonal changes related to periods of low rainfall. Predictions that those patterns may be influenced by hormonal content in the diet are continuing to be investigated. A key parameter of a healthy chimpanzee community is the duration of interbirth interval (IBI). For most studies of wild chimpanzees, IBI averages approximately 5 years (60 months). At Kasokwa, the IBI averages 54.2 months (range = 50-63). Whether this is a substantially low IBI and whether this figure is a direct consequence of seasonal influence requires continued monitoring. Regardless, the low IBI has facilitated the community's growth. This, along with potential immigration from other forest fragments and protection of their habitat, will secure this small community's survival.

Key words: Chimpanzees, seasonality, reproduction, forest fragmentation