

Crop raiding behaviors of the Anubis baboon (*Papio anubis*) and the Vervet monkey (*Chlorocebus pygerythrus*) in southern Ethiopia: implications for primate conservation and agricultural loss mitigation

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Abstract

Species and subspecies of primates occur in different parts of Ethiopia, and some of them are successful crop raiders. The study aimed to investigate the population status of the Anubis baboon (*Papio anubis*) and Vervet monkey (*Chlorocebus pygerythrus*) and crop raiding activities in southern Ethiopia. The data was collected through direct observation of 14 transects during both the dry and wet seasons. The information on the impact of the primates on the local farmers was collected via a questionnaire survey. A non-parametric chi-square test was used to compare the seasonal variations in species composition and abundance of individuals among the habitats. There was no significant relationship between *Chlorocebus pygerythrus* ($\chi^2 = 0.437$, $df = 1$, $p > 0.05$) and *Papio anubis* population size during the wet and dry seasons in either habitat type ($\chi^2 = 0.013$, $df = 1$, $p > 0.05$). Most of the *Papio anubis* and *Chlorocebus pygerythrus* were recorded at the sub-adult stage in both habitats. The highest crop-damage record by the *Papio anubis* was at the ripened stage, whereas that by *Chlorocebus pygerythrus* was at the flowering stage. The least damage recorded by both *Papio anubis* and *Chlorocebus pygerythrus* was at the seedling stage. The annual loss of the maize crop by the primates was estimated at approximately \$297. Watching and chasing were the most popular methods of primate crop loss mitigation. There is a need for effective forest management and the formulation of conservation strategies to maintain primate status and to minimize crop loss.

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