

026

**FOREST EDGE EFFECTS ON THE BEHAVIORAL ECOLOGY OF *CERCOPITHECUS LHOESTI* IN BWINDI IMPENETRABLE FOREST, UGANDA**

T. Ukizintambara , B.A. Kaplin

*Center for Tropical Ecology and Conservation, Antioch University New England, Department of Environmental Studies, Keene, New Hampshire, USA.*

*Presenter's Email: [tukizintambara@antioch.edu](mailto:tukizintambara@antioch.edu)*

Forest edge effects result from changes in physical features of the habitat, predator species or numbers, and prominence of human activities that may directly or indirectly influence the behavior, ecology, and fitness of forest-dwelling animals. I studied how edge-related disturbances influenced the behavioral ecology and survival strategies of *Cercopithecus lhoesti* in Bwindi Impenetrable National Park in Uganda over 13 months. Using instantaneous scan sampling every five minutes from dawn to dusk, I recorded the activity of every visible individual in an edge and interior group. The behavior of the edge group was remarkably similar to that of the interior group. However, the edge group socialized significantly less compared with the interior group, an activity that could reduce the cohesion in the edge group. In addition, there was a higher mortality in the edge group than in the interior group. Even though disturbances were relatively evenly distributed in the edge and interior group home ranges, eight individuals (22%) succumbed to human retaliation (n=4), eagle attacks (n=1), and possibly infanticides (n=3) committed by new adult males that took over the edge group. In contrast, the interior group lost only two individuals (11%) and did not experience group take-over during the study period. Forest edge threats and reduced socialization in the edge group could continue to affect the fitness of edge populations of *Cercopithecus lhoesti* in Bwindi forest. Further studies and conservation efforts are therefore needed for a better understanding and the survival of the species.

Keywords: Edge effects, Behavioral ecology, Primates, Bwindi Forest