



Differential response of Central African great apes to hunting pressure across non-protected forests in Gabon

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Key words: Central African great apes, non-protected areas, camera traps, hunting pressure

Submitted 30/05/2024, Published online on 31st October 2024 in the [Journal of Animal and Plant Sciences \(J. Anim. Plant Sci.\) ISSN 2071 – 7024](#)

1 ABSTRACT

Most of the great ape population inhabiting Central African forests live outside of protected areas where human pressures are high. The survival of great apes is uncertain across unprotected areas. It is therefore important for their conservation, to increase information regarding their distribution and assessing the potential effect of human pressure on their abundance across unprotected forests. In the present study, during at least two months, we conducted camera-trap surveys along 10 non-protected forests in Gabon. In each area, we also assessed the hunting pressure through hunting indices. The species accumulation curves suggested that the number of species was saturated for all forested blocs. Chimpanzees were found in all areas whereas gorillas were not found in the areas with high hunting pressure (hunting index > 2 index/Km). Moreover, overall detections of gorillas were less than that of chimpanzees. We investigated the correlation between the relative abundance of each great ape species and hunting pressure index, a significant negative correlation was found between the relative abundance of gorilla ($P < 0.001$, $r = -0.628$). In contrast, a marginal negative correlation between the relative abundance of chimpanzee and hunting index was identified ($P=0.1831$, $\tau = -0.42$). This difference in hunting pressure between the two coexisting great ape species within non-protected shows an urgent need to increase information regarding the distribution of great ape populations in order to update their conservation status across unprotected areas in Gabon.