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### Assessement of the nest and feeding ecology of the sympatric cross river gorilla and nigeria cameroon chimpanzee in tofala hill wildlife sanctuary

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reliminary studies of Cross River gorilla (Gorilla gorilla diehli) and Nigeria-Cameroon Chimpanzee (Pan troglodytes ellioti) have been going on in Tofala area since 2004. These studies were mostly focused on determining the distribution of these two great apes species in the area. Reliable information on the ecology of wild Cross River gorilla and Nigeria Cameroon chimpanzee is still scarce. Such information can provide insights into great ape cognition and evolution and can provide valuable data to guide conservation efforts for remaining populations. The aim of this study was to

make an assessment of the nesting and feeding ecology of Cross River gorilla and Nigeria Cameroon chimpanzee in Tofala Hill Wildlife Sanctuary. This study was conducted from November 2015 to August 2016. 55 kilometers reconnaissance (recce) walks and twelve camera traps functioning for 1242 trap days (November 2015 to April 2016) were used to determine the nesting and feeding ecology of these great apes species. The study area was randomly stratified into 1km by 1km grids with laid down recce of different lengths in the center of the grids, and camera traps planted along animal trails in the grids. The following data were collected; GPS coordinate of great apes nest, vegetation type, species, slope, canopy type, food type, nest sites, nest type, undergrowth of vegetation and elevation and photos of great apes from camera traps. Data were analyzed using Microsoft Excel. Results revealed that slope, vegetation and canopy cover have great influence on the ecology of great apes.

55.06% of nests and 60% of feeding signs for chimpanzee and, 61.5% of nests and 65.6% of feeding signs for gorilla were distributed across steep slopes. 56.2% of chimpanzee and 38.5% of gorilla nest were constructed in undergrowth made of small trees and lianas respectively. 40% of chimpanzee and 79.9% of gorilla feeding signs were distributed in bushes of secondary forest. 56.2% of chimpanzee nest sites were constructed in very close canopy cover and 40% of feeding signs were distributed in open canopy cover. Similarly, the majority of gorilla nest (76.9%) were constructed under very close canopy and feeding signs (51.1%) were found in open canopy. Aframomum sp was the most frequently encountered food remains for both chimpanzee and gorilla and can be considered as the most stable diet for great apes in the area. Chimpanzee fed on giant snails, mongoose, and porcupine. Though this study presents foundational research on the nesting and

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feeding ecology of Cross River gorilla and Nigeria Cameroon Chimpanzee it is limited in some important way, the entire area of the sanctuary was not surveyed, and fecal analyses were not conducted to determine the diversity of great apes diet. However, this information obtained can be used in the long-term conservation of Cross River gorillas and Nigeria-Cameroon Chimpanzee in the Tofala Hill Wildlife Sanctuary.

#### **Biography**

Enokenwa Allen Tabi was born on the 4th of December 1982 in Mamfe, South West Region of Cameroon. He studied in the University of Dschang, Cameroon where he obtained his Master Degree in Ecology and Wildlife Management. He has been working with the Environment and Rural Development Foundation (ERuDeF) since 2011, where he has amassed seven years' experience in the domain of wildlife conservation. His work in wildlife has contributed in the creation of the first protected area (Tofala Hill Wildlife Sanctuary) and in the process of creating the second protected area (Mak-Betchou Wildlife Sanctuary) in the Lebialem Highlands. He currently holds the position of the Deputy Chief of Programs in ERuDeF.

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