

ECOLOGICAL PARAMETERS OF WESTERN HARTEBEEST (*Alcelaphus buselaphus*) IN OLD OYO NATIONAL PARK, NIGERIA



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ABSTRACT

The study examined some ecological parameters including relative abundance, distribution, biomass and forage utilization by *Alcelaphus buselaphus* in Old Oyo National Park. A 4x4 km transect was laid in each of the 4 vegetation communities in the Park, with effective study area of 64km², transects were traversed severally to ensure minimum encounters. Animals were identified using standardized animal taxonomic characteristics, the following parameters were recorded on any group sighted; species, sighting distance, sighting angle, perpendicular distance and population structure. Animal biomass was calculated per kg/km², feeding observations followed the scanning focal point techniques. Observations were made on several groups of *A. buselaphus* that comprises about 127±18.70 individuals from a mean distance of 70m. Plants and parts utilized as feed were identified using standardized keys. The results indicated that 30.23, 28.68, 27.13 and 6.20% were adult females, sub-adult females, juveniles and adult males respectively, with a relative abundance of 0.28.13±0.06 group/km² and sex ratio was 1:5 (adult male to adult females). A total of 10 plant species were identified as preferred feed including *A. buselaphus* including *Andropogon gayanus*, *A. schrensis*, *A. tectorum*, *Panicum maximum*, *P. pavifolium*, *Citenum elegans* and *Beckropsis uniseta* amongst others. Young leaf was the most preferred part of plant utilized as feed (82.03%), while matured leaf was less preferred (15.01%). There is a significant difference ($p < 0.05$) between the parts of plants utilized as feed. Measures to improve *A. buselaphus* population in the Park includes elimination of wildlife poaching, indiscriminate burning of vegetation, illegal grazing and application of controlled burning regimes.

Keywords: Wildlife, habitat, biomass, abundance, feed, savanna