

Plant-Animal Interactions in a Derived Savanna, Vegetation in Ogun State

ONADEKO, S. A., OJO, L. o. and JAYEOLA, O. A.

College of Environmental Resources Management

University of Agriculture, Abeokuta.

Abstract

Forty five (45) 25m x 25m plots distributed according to the sizes of each of the five zones at the University of Agriculture at Alabata, Abeokuta were enumerated. In each plot all plant species were enumerated and the presence of animals were determined by direct and indirect indices such as faecal pellets, foot prints, nest body patches, burrow, holes, feed remnant, trails, sound bathing and wallowing points and sites of hibernation. Relative abundance and similarity indices were used to determine the species richness, while the interactions between the plant and animal species were explored through the use of canonical correspondence analyses. The results of the analyses show that 35 animal species were encountered of which five species were encountered in all the five zones, three species in four zones, four species in three zones. The distribution of the animal among the zones indicates that 14, 18, 12, 23 and 12 species were found in zones 1, 3, 4, 5 and 6 respectively. Simpson similarity indices also revealed that adjacent pair zones have values ranging from 50% to 83% similarity indices, indicating a continuous pattern in the animals distribution. In terms of relative abundance, cane rat (*Thryonomys swinderianus*) alone accounts for over 43% of the total animals encountered. Twelve other animal species account for over 45%. These include Ground squirrel (*Xerus erythropus*) (15%). Giant rat (*Cricetomys gambianus*) (8%) and Maxwell Dulker (*Cephalophus Maxwell*) (6%). Rare animal species especially mammals with each less than 0.2% relative abundance include Mongoose (*Mungos gambianus*) and tree hyrax (*Dendrohyrax arboreus*). Birds sighted include Laughing dove (*Stigmatopella senegalensis*). Senegal coucal (*Centropus senegalensis*), Green fruit pigeon (*Treron australis*), weaver bird (*Ploceus cucullatus*) and Long-created hawk (*Lophaetus occipitalis*). The bi-plot diagram of plant and animal relationship clearly indicated the preferred ecological niches for the animals.