FAUNA AND FLORA DIVERSITY AND ABUNDANCE IN BUZUZU FOREST RESERVES, BAUCHI STATE, NIGERIA

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ABSTRACT

This study was carried out at Buzuzu Forest Reserve for the purpose of documenting the present status of its biological diversity (flora and fauna). The Forest area was stratified into fourteen grid-blocks of 100km^2. Deductive and inductive models were adopted for fauna study, while Systematic sampling technique was adopted for the flora composition. Diversities were assessed in the reserve by using Shannon-Wiener diversity index. One hundred and twenty questionnaires were administered to seven out of eleven villages to provide information on the socio-economic status of species utilization by the inhabitants. The species of fauna found according to international status are threatened (t), endangered (e), vulnerable (v), locally extinct (le) and lower-risk (lr). Those species that are at lower risk were found inhabiting the forest ecosystem at the niches adjacent to the Andiwa Lake. Percentage rating of mammal, bird, and reptile are 17%, 69% and 14% respectively. While species utilization indicated that they were mostly preferred and hunted for food was 75%. Other form of species utilization are for preventive, fertility, aphrodisiacs, appease and for fortune with the rating 10, 5, 5, 2 and 3% respectively. The hunting instrument most commonly used are cutlass, wire trap, gine-trap and dane-gun were. The common tree species in the reserve were *Piliostigma reticulata* (RIV=21.2%), *Azadirachta indica* (RIV=13.3%) and *Termarindus indica* (RIV=12.2%). There were other nine species that accounted for 53.3% of the tree population in the reserve. The diversity index (2.25) was high, which is indicative of fairly good representation of all the tree species; while dominance index is low (0.12). The commonest shrub species in the reserve was *Guiera senegalensis* (RIV=49.5%). The species were randomly distributed as indicated by the high equitability index (0.8742) and there was no preponderance of a particular species over others. It can be concluded that Buzuzu forest ecosystem presently inhabits the least mean population of species of animals. It is serves as natural abode and easy source of food for the fauna species and rural dwellers. Measures proposed to preserve the forest include public enlightenment. The rehabilitation of Buzuzu ecosystem will not be feasible and its operational strategy unattainable if sustainable management and development of all identified problems are not addressed.

Keywords: Sustainable, Flora, Fauna, Utilization, Forest reserve