

Conservation Status of a Lowland Tropical Forest in South-West, Nigeria

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Abstract : Timely and reliable information on the status of a forest is essential for assessing the extent of regeneration and degradation. However, when such information is lacking effective forest management practices becomes impossible. Therefore, this study assessed the tree species composition, richness, diversity, structure of Oluwa forest reserve with the view of ascertaining its conservation status. A systematic line transect was used in the laying of eight (8) temporary sample plots (TSPs) of size 50m x 50m. Trees with Dbh \geq 10cm in the selected plots were enumerated, identified and measured. The results indicate that 535 individual trees were enumerated cutting across 26 families and 58 species. The family Sterculiaceae recorded the highest number of species (10) and occurrence (112) representing 17.2% and 20.93% respectively. *Celtis zenkeri* is the species with the highest number of occurrence of tree per hectare and importance value index (IVI) of 59 and 53.81 respectively. The reserve has the Margalef's index of species richness, Shannon-Weiner diversity Index (H') and Pielou's Species Evenness Index (EH) of 9.07, 3.43 and 0.84 respectively. The forest has a mean Dbh (cm), mean height (m), total basal area/ha (m²) and total volume/ha (m³) of 24.7, 16.9, 36.63 and 602.09 respectively. The important tropical tree species identified includes *Diospyros crassiflora*, *Milicia excels*, *Mansonia altissima*, *Triplochiton scleroxylon*. Despite the level of exploitation in the forest, the forest seems to be resilient. Given the right attention, it could regenerate and replenish to save some of the original species composition of the reserve.

Keywords : forest conservation, forest structure, Lowland tropical forest, South-west Nigeria

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