

# **CONTRIBUTION OF TRADITIONAL FOREST CONSERVATION METHOD TO BIODIVERSITY CONSERVATION IN RAINFOREST ZONE OF SOUTH-WESTERN NIGERIA**

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Forest conservation through traditional methods such as sacred grove has been practiced by indigenous communities. The contribution of sacred grove to biodiversity conservation in south-western Nigeria was investigated using two groves (Osun and Igbo-Olodumare) and compared with two degraded (Akure/Ofosu and Oluwa degraded forests) and two primary forests (Queen's forest and Oluwa primary forests). Line transect was used to lay temporary sample plots of 20m x 40m (Eight per site and 48 for this study). In each plot, all trees (dbh≥10cm) were identified and dbh their measured. A 5m x 10m quadrant was used to assess seedling regeneration. Osun grove had the highest species abundance (61), diversity index (3.54), high species evenness (0.66) and highest seedling (66 species) regeneration, thus demonstrating consistently higher biodiversity indices than other sites. Contrariwise, Igbo Olodumare grove had the poorest diversity indices. A high percentage of the endangered trees in Nigerian rainforest ecosystem were found in sacred groves, indicating their high conservation in sacred groves. The low diversity indices of Igbo-Olodumare grove is attributed to its 'low-sacredness', which has resulted to massive encroachment. The consistently higher diversity indices in Osun grove indicates that traditional conservation method is contributing significantly to biodiversity conservation.

*Key words:* Sacred grove, biodiversity, conservation, tropical rainforest, ecosystem, Nigeria.