



Assessment of Tree Species Composition and Diversity of Core and Buffer Zones in Pualreng Wildlife Sanctuary, Mizoram, India

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Abstract: This study aims to scrutinize tree species composition and diversity in the tropical forest of Pualreng Wildlife Sanctuary which was evaluated by randomly laying 60 quadrats (10m x 10m) each in the core and buffer zones. Total of 109 tree species (≥ 5 cm dbh) belonging to 41 families were recorded in the study area where Fabaceae family accounts for the highest number of species followed by Malvaceae and Lauraceae. In the Buffer Zone, 71 species belonging to 63 genera and 32 families were documented while in Core zone, 94 species belonging to 77 genera and 40 families were recorded. Shannon-Weiner's Species Diversity Index ($H' = 4.2$) and Margalef's Index for Species Richness ($R = 12.38$) indicate higher values in the Core Zone but the Simpson's dominance index value ($D = 0.02$) was low. Pielou's Evenness Index ($E = 0.6862$) was slightly higher in buffer zone. Results obtained revealed high biodiversity in the study area. The study provides data for the management of protected areas and shows the potential of in situ method in the conservation of preserved areas.

Keywords: Composition, Diversity, Buffer zone, Core zone
