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WOODY SPECIES DIVERSITY, RICHNESS AND POPULATION STRUCTURE OF ENCLOSED AREAS, NORTH GONDAR, ETHIOPIA

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A B S T R A C T
This study investigated the species diversity, richness and vegetation structure analysis of Wogello natural forest. For Vegetation data collection, systematic sampling designs were used. A total of 42 quadrants/plots were taken. The result indicated that a total of 20 woody species belongs to 12 families were identified. Based on families, Fabaceae was the dominant family by consists of four species (20%), followed by Apocynaceae two (10%), Oleaceae two (10%) and the rest families share 60% from a total family of the study area. The total basal area was 28.97.3 m2 ha-1. Number of individuals with (DBH) ⩾ 2.5cm and height ⩾ 2 m were 1022 trees ha-1 and for the regeneration it was (6093 individuals ha-1). The overall diameter and height frequency distribution of woody species showed an inverse J- shape. The population structure of the study area was determined by selecting five species based on their Importance Value Index (IVI). The result indicated that three population structure distribution. Inverse J-shaped, Bell shaped and Broken inversed J-shaped