

**Tree species composition and diversity in one ha forest, Ulu Muda Forest Reserve,  
Kedah**

**ABSTRACT**

The present study was carried out to investigate the composition of species and species diversity at Compartment 28A in the Ulu Muda Forest Reserve (UMFR), located in north-west of Peninsular Malaysia. The area covered was one ha. Stems with diameter at breast height (dbh)  $\geq 1$  cm were enumerated, identified and their height measured. The importance value index (IVI) was estimated to show which species have the highest value, since species density was also estimated. We recorded 722 species from 81 genera belonging to 42 families. The highest IVI was recorded for *Macaranga hosei* (42.40). It was also the highest in stand density (33 individuals / 4.43 %) in one ha. Species from Euphorbiaceae were represented at the highest level, with 11 genera (about 210 individuals). The total above-ground biomass (TAGB) in one ha using three different modifications from Kato et al. (190.3 t/ha), Kueh and Lim (2522.8 t/ha), and Lim (174.7 t/ha) were noted from family Dipterocarpaceae.

**Keyword:** Importance value index; Species composition; Species diversity; Stand density; Ulu Muda Forest Reserve