

Diversity of Trees at Gunung Serambu, Bau District, Sarawak, Malaysia

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Abstract

An inventory on trees was undertaken in 12 plots of 20×20 m at Gunung Serambu, Bau District as part of a multidisciplinary study in 2012. Six plots were established at the upper elevation (≥ 500 m) of the mountain and another six along the lower elevation from the foothill (≤ 500 m). A total of 487 trees were enumerated consisting of 112 species from 80 genera and 43 families. Among them are three species of figs namely *Ficus schwarzii*, *F. fistulosa*, *F. grossularioides* and a legume, *Koombassia excelsa*, which are categorized as protected in Sarawak based on Sarawak Protection Ordinance 1998. Another eight species (*Vatica micrantha*, *Artocarpus primackii*, *Knema pallens*, *Chionanthus pubicalyx*, *Mangifera pajang*, *Diospyros piscicarpa*, *Lithocarpus hallieri* and *Xanthophyllum ecarinatum*) are listed as Borneo endemic. Euphorbiaceae with 13 species and 10 genera was considered the most dominant family. The families that follow in order of decreasing dominance are Moraceae, Clusiaceae, Lauraceae and Anacardiaceae. Based on important value index (IVI), *Durio zibethinus* represents the most dominant species with $IVI = 259.24$ followed by *Lansium domesticum* with $IVI = 242.84$, while *Blumeodendron tokbrai*, a distant third, with $IVI = 157.23$. There were nine species, with IVI less than 5.0. Higher number of individuals and species were recorded at higher elevation than at the lower elevation, as shown by the Shannon index ($H' = 3.69$ (≥ 500 m) and $H' = 3.40$ ($400-500$ m), respectively). Simpson index (D_s) also recorded the highest value, with $D_s = 0.97$ at elevation of ≥ 500 m. The distribution of individuals among species was more or less even in all plots with $E > 0.9$.

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