

Tree species diversity of logged over forest at Tekai Tembeling Forest Reserve, Jerantut, Pahang.

ABSTRACT

The quantitative assessment of the hill logged-over forest at Tekai Tembeling Forest Reserve (TTFR), Jerantut, Pahang, Malaysia has never been investigated by the Forestry Department in the State of Pahang. This study investigated tree species diversity at 340-520 m asl. A one-ha (100 m × 100 m) study plot was established and trees with diameter at breast height (dbh) of 5.0 cm and above were measured. Results showed that a total of 1307 trees from 241 species were recorded from this 1-ha plot. *Shorea curtisii* had the highest relative abundance (0.039) followed by *Swintonia floribunda* (0.038) and *Knema* sp.1 (0.034). Jackknife method for species richness estimated that 324.2 species present in the 100 quadrats. The regression equation to estimate species richness was $\ln \hat{S} = 0.91 + 0.49 \ln (A)$ with $r^2 = 0.99\%$. Simpson's index of diversity was 0.99 and Shannon-Weiner diversity (FT) was 6.99. Results also showed that Simpson's measure of evenness was 0.35 and Smith and Wilson's index of evenness was 0.50. These results suggested that species richness and diversity in logged-over forest of TTFR was high but the evenness was low. This was mainly because the species abundance within this plot comprised a variety of species and less species overlapping.

Keyword: Logged-over; Species diversity; Richness; Evenness.