

Distribution, biomass and dynamics of Burseraceae trees in the 50-HA plot at Pasoh Forest Reserve, Negeri Sembilan, Malaysia.

ABSTRACT

Data on Burseraceae in a 50-ha permanent plot at Pasoh Forest Reserve, Negeri Sembilan, Malaysia were obtained from the Forest Research Institute of Malaysia (FRIM) and used to assess the primary productivity and distribution of the family. Four censuses were conducted in 1985, 1990, 1995 and 2000 and data analyses were done on the later census, however comparisons were made between censuses of 1985, 1990 and 1995 to determine variabilities. From census in 2000, four genera and 22 species and varieties of Burseraceae were recorded in the plot. A total of 16,535 trees were enumerated of which the most abundant species was *Dacryodes rugosa* (4,972 trees). Total above ground biomass of the family was estimated at 207.14 tan ha⁻¹, and the highest above ground biomass was represented by *Triomma malaccensis*, estimated at 34.31 tan ha⁻¹. The biomass estimation for 20 years increased significantly (ANOVA, $p < 0.05$) between the three censuses. The total population of the family had reduced by 5.92% within 20 years. A total of 3,408 (19.56%) trees were found dead, 3,165 (18.23%) trees were new recruits and 726 (4.17%) trees were damaged naturally and by animals. Distribution-wise, soil type is shown as an influential factor as well as the topography.

Keyword: Biomass; Burseraceae; Distribution; Pasoh Forest Reserve; Peninsular Malaysia.