Vascular Epiphytes Diversity at Pusat Sejadi, Kawang Forest Reserve, Sabah Malaysia

Abstract

Vascular epiphyte category as well as diversity of epiphytic was studied in Pusat Sejadi, Kawang Forest Reserve Papar Sabah. Five randomly sampling plots of 50m x 40m (0.2 ha) were presented for 1 ha of the forest for the purposed of data collection. The result showed that 3 types of phorophytes (host tree) on which the vascular epiphyte attached to: standing tree, dead standing tree and fallen tree (deadwood). The standing and dead standing tree were subdivided into 3 zones which known as basal part, trunk and canopy to analyse the species richness. A total of 137 numbers of individual species with 2 groups (Angiosperm and Pteridophyte), 7 families and 15 species were found growing epiphytically on the phorophytes. According to the Shannon – Weiner biodiversity index analysis, it showed (H') was 0.98 which the vascular epiphytes were diverse, although they were not equally abundant based on the calculated value of Evenness Index (E=0.36). The species richness also less with IMargalef = 2.8. Pteridophytes (ferns) contributed more significantly to species diversity. Vascular epiphytes were more diverse in standing and fallen tree. In standing tree, fewer species were found on the tree trunk (4 species) than in the basal (5 species) and crown or canopy (5 species). Aspleniaceae and Polypodiaceae were 2 families consisted of more species which each of it had 4 species. Four species were found presented on all types of phorophytes: Asplenium nidus, Nephrolepis spp, Arcypteris irregularis and Microsorum musifolium. Asplenium nidus was the commonest species presented in all plots with good adaptations in any conditions of the forest whether in shady, partially or fully sun.