

Vascular plant composition and diversity of a Coastal Hill Forest in Perak Malaysia.

Abstract

Vascular plant species and diversity of a coastal hill forest in Sungai Pinang Permanent Forest Reserve in Pulau Pangkor at Perak were studied based on the data from five one hectare plots. All vascular plants were enumerated and identified. Importance value index (IVI) was computed to characterize the floristic composition. To capture different aspects of species diversity, we considered five different indices. The mean stem density was 7585 stems per ha. In total 36797 vascular plants representing 348 species belong to 227 genera in 89 families were identified within 5-ha of a coastal hill forest that is comprises 4.2% species, 10.7% genera and 34.7% families of the total taxa found in Peninsular Malaysia. Based on IVI, *Agrostistachys longifolia* (IVI 1245), *Eugeissona tristis* (IVI 890), *Calophyllum wallichianum* (IVI 807), followed by *Taenitis blechnoides* (IVI 784) were the most dominant species. The most speciose rich families were Rubiaceae having 27 species, followed by Dipterocarpaceae (21 species), Euphorbiaceae (20 species) and Palmae (14 species). According to growth forms, 57% of all species were trees, 13% shrubs, 10% herbs, 9% lianas, 4% palms, 3.5% climbers and 3% ferns. Diversity indices were higher along the stream side and species accumulation curve showed sampling area captured a high proportion of the species richness.

Keyword: Coastal hill forest; Diversity indices; Importance value index; Malaysia.