

Physico-chemical characteristics of soil at Sungai Udang Forest Reserve, Malacca, Peninsular Malaysia

ABSTRACT

A study was done to describe the soil characteristics and to determine the relationship between the soil properties of the forest reserve. A total of 25 plots were constructed and soil samples were collected from each plot of the study sites. A total of 1668 individual trees with diameter at breast height (DBH) of 5 cm and above were found in the 25 plots in Sungai Udang Forest Reserve, Malacca, Peninsular Malaysia. The overall floristic composition of the forest consists of 85 species belonging to 79 genera and 38 families. The soil in the studied area was acidic and dominated by clay loam which shows that the soil is suitable for the provision of nutrients to the plants. The correlation analysis between the physico-chemical characteristics of soil at all plots concluded that the correlation between the chemical content of soil in the area ranged from very weak to moderate. This is due to the fact that the strength of the correlation in this study for the absolute value of (r) ranged from as low as 0.007 (very weak) to 0.482 (moderate).

Keyword: Pearson's correlation analysis; Peninsular Malaysia; Physico-chemical characteristics; Tropical Rainforest