

TREE SPECIES DIVERSITY FOR TROPICAL SEMI-MOIST EVERGREEN CLOSED FOREST AT THE NATURAL RESERVE OF BINH CHAU - PHUOC BUU IN BA RIA – VUNG TAU PROVINCE

Phan Minh Xuan, Nguyen Van Them

Summary

This study introduce some results of tree species diversity in tropical semi-moist evergreen closed forest at Binh Chau - Phuoc Buu natural reserve in Ba Ria – Vung Tau province. The objective of research are analyzing tree species diversity and some affect on environment factors, and this results are as a basic to forest management and reservation. Data are collected from 89 plots with size 0.2 ha each (40x50 m). Some elements to measure, include: tree's name, density, diameter, height, soils, and forest distants from sea. The results have shown that the number of familiar are 41; $d_{\text{Marhalef}} = 3.71$; $J_{\text{Pielou}} = 0.79$; $H'_{\text{Shannon}} = 2.34$; $1 - \lambda'_{\text{Simpson}} = 0.84$. Total tree species are 109. The following forest states, species in poor-forest (103 species) is higher than medium-forest (89 species), and rich-forest (83 species). Tree species diversity in study area is medium level with indicator: $d_{\text{Marhalef}} = 5.69$; $J_{\text{Pielou}} = 0.83$; $H'_{\text{Shannon}} = 2.82$; $1 - \lambda'_{\text{Simpson}} = 0.90$; and $\beta = 3.83$. The average of species and tree species diversity indexes (d , J' , and H') are not significant different among forest states, soils, and forest distants from sea. There are 14 tree species in Vietnam Redbook (2007), 2 tree species in Vietnam's 32 Government Decree (2006) and 10 tree species in IUCN (2017). According to rare index (RI), include: extremely rare are 22 species; very rare are 6 species; and rare are 34 species.

Keywords: *Tropical semi-moist evergreen closed forest, poor-forest state, medium-forest state, rich-forest state, tree species diversity.*