

# **Vegetation patterns in the tropical semi-evergreen forest at Sakaerat,**

## **Nakhonratchasima.**

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### **ABSTRACT**

Twelve stands of the tropical semi-evergreen forest at Sakaerat Environmental Research Station, Nakhon Ratchasima province, NE Thailand were studied for structure and to determine the relationship of stand to environmental factors.

The tropical semi-evergreen forest can be divided into two dominance-types; *Hopea ferrea* type and *Shorea henryana* type. Basal area and density of all stems (dbh  $\geq$  10 cm) were slightly different between two types (30 m<sup>2</sup>/ha and 562 trees/ha in *Hopea ferrea* type and 27 m<sup>2</sup>/ha and 514 trees/ha in *Shorea henryana* type).

Size-class analysis indicated similar structure of two dominance-types. Both were well described by a negative power curve and negative exponential distribution. Size-class distributions of individual species exhibited variable patterns. Regression analysis revealed that there appeared the positive relationship between basal area per hectare with magnesium, available moisture capacity, phosphorus and bulk density. On the other hand silt + clay, soil pH and slope produced the negative relationships with stand basal area.