Inventory of Vegetation in one hectare (100 m x 100 m plot) centred on forest tower, ASRCT. Sakaerat Experiment Station (Amphoe Pak Thongchai, Changwat Nakhonratchasima).

TEM SMITINUNT, CHUMSRI CHAIYANAND, ANAND NALAMPHUN,
THAWATCHAI SANTISUK.

Royal Forestry Department, 1968.

ABSTRACT

The plot is covered with 2-storied froest made up of two layers of tree species and an undergrowth layer.

The top-storied trees are 20 to 35 m high and all have straight, clear boles and large girth with wide-spreading crowns. The crown canopy is continuous and superimposed, especially in the eastern sector, owing to the high density of trees. The widest crown is 18 m in diameter. This storey is almost exclusively *Hopea ferea* but there is also a scattered occurrence of *Shorea sericeiflora*. The latter species has a clear bole over 30 m high and often sends its crown a little above its companion species, this crown being relatively smaller and rather irregular.

The second-storied trees are 5 to 17 m high, the majority being in the smaller sizes. Their crown canopy is also continuous and superimposed, forming a second canopy. The Species of high frequency of occurrence *are Memecylon sp., Hydnocarpus ilicifolius, Walsura trichostemon, Aglaia pirifera* and *Lagerstroemia calyculata*, together with splings of *Hoped ferrea* which will eventually grow up into the top storey.

The trees fall into two distinct diameter classes, small trees with diameters between 5 and 25 cm and large trees with diameters from 30 to 140 cm. There are very few medium-sized trees.

The undergrowth layer is composed of seedlings of trees belonging to the upper two stories, together with shrubs: *Melodorum fruticosum, Mallotus sp., Phoebe sp., Linociera microstigma and* a shrubby species of *Ixora.* The height of the undergrowth is between 2.5 to 3.5 m.

The forest floor is well covered with thick undergrowth and climbers, and penetration is very much impeded. The average horizontal visibility is 18 m.

The crown canopy in the eastern sector is almost uniformly continuous. However, the western sector has a rather broken canopy and scanty sunlight can penetrate through gaps to the forest floor.

There is a thick layer of forest litter made up of dry leaves, fruits, fallen twigs, rotten bark, and decomposing animals; the layer is 1 to 3 cm thick. Nuts of *Hopea ferrea* begin to mature in October and they occur as a considerable component in the litter.