

Structure and dynamics of dry dipterocarp forest, Sakaerat, Northeastern Thailand.

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ABSTRACT

Investigations of the stand characteristics and changes in mortality and growth of tree species in the typical deciduous dry dipterocarp (broad-leaved) forest occurring in mainland Southeast Asia, the most extensively distributed forest type of Thailand, were carried out in four stands of 1 ha square in Sakaerat Environmental Research Station, northeastern Thailand. The four stands show sporadic, discontinuous crown covers with large canopy openings as well as stratification of the whole stand parameters vary from stand to stand, but all stands contain relatively few species. Association types of the four stands, based on the highest importance value index (IVI) of the two main species were recognized as (1) *Shorea floribunda*-*Quercus kerrii*, (2) *Shorea obtusa*-*Shorea siamensis*, (3) *Shorea obtusa*-*Pterocarpus macrocarpus* and (4) *Shorea siamensis*-*Shorea floribunda*. The distributional pattern of all individuals, death and recruitment (to DBH \geq 4.5 cm.) were followed for four years, together with their mean annual diameter increment, relative growth rate and basal area cover for the stand and for the selected tree species. These stand parameters changed differently depending on species composition, stand density and behavior of the dominant species.