

**Mosaic structure and tree growth pattern in a monodominant
tropical seasonal evergreen forest in Thailand.**

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ABSTRACT

The mosaic structure, species composition and growth pattern of trees were examined in a tropical seasonal evergreen forest in Thailand. The gap, building, and mature phases covered 5.9 , 20.2 ,and 73.9% of the total forest, respectively, and the gap formation rate was estimated as 0.005 ha ha⁻¹ yr. based on 4 years of observation. The maximum size of gaps in the forest was 410 m². The main component species of the forest were *Hopea ferrea*, accounting for 47.4% of the total basal area, and several sub-canopy species. Two types of canopy species were found : fast-growing species with bell-shaped size structure(corresponding to late-secondary species or late-serial species) and slow-growing species with L-shaped size structure. The dominant canopy species, *Hopea ferrea*, belong to the latter category. The turnover time of the forest (the mean duration between succeeding gap formations) was estimated as 199 years from the life span of *Hopea ferrea* and 200 years from the gap formation rate. The mono-dominance of the forest is considered to be maintained by the high shade tolerance of *Hopea ferrea* and the small gap size in the forest.