Manop Poopath 2007: Studies on Species Diversity of Dipterocarpaceae in Hala-Bala Forest, Yala and Narathiwat Provinces. Master of Science (Forestry),
Major Field: Forest Biology, Department of Forest Biology.
Thesis Advisor: Assistant Professor Duangchai Sookchaloem, D.Sc. 315 pages.

Studies on species diversity of Dipterocarpaceae in Hala-Bala forest were carried out by examining their morphological characters, ecological distribution. Key to genera, sections, species and subspecies, including illustrations and photographs were undertaken. Plant specimens were collected between April 2004 and December 2006. Specimens were identified and classified by comparisions with herbarium specimens and analysis from the taxonomic literatures. Two hundred and twenty specimens comprising of 7 genera with 43 species and 1 subspecies were found as follow: *Anisoptera* (3 species), *Dipterocarpus* (8 species), *Vatica* (8 species), *Neobalanocarpus* (1 species), *Parashorea* (1 species), *Hopea* (8 species) and *Shorea* (14 species and 1 subspecies). 16 species and 1 subspecies are newly recorded for Thailand: *Anisoptera laevis* Ridl., *Dipterocarpus acutangulus* Vesque, *D. crinitus* Dyer, *Hopea bracteata* Burck, *H. dryobalanoides* Miq., *H. montana* Symington, *H. sublanceolata* Symington, *Shorea bracteolata* Dyer, *S. ochrophloia* Strugnell ex Symington, *S. longisperma* Roxb., *S. ovata* Dyer ex Brandis, *S. pauciflora* King, *Vatica cuspidata* (Ridl.) Symington, *V. lowii* King, *V. nitens* King, *V. maingayi* Dyer, and *S. parvifolia* Dyer subsp. *velutinata* P.S. Ashton. Therefore numbers of species in Dipterocarpaceae were increasingly enumerated as 78 species and 1 subspecies for Thailand. Two species could not be identified into certain species (*Hopea* sp.1 and *Vatica* sp.1). Three species are proposed to be new locality records: *A. scaphula* (Roxb.)Kurz, *D. retusus* Blume and *S. gratissima* (Wall. ex Kurz) Dyer. New sectional and subsectional records were found: section *Brachypterae* F. Heim and subsection *Sphaerocarpae* (F. Heim) P.S. Ashton. These dipterocarps are well established in moist evergreen forests at low altitudes up to a maximum of 1,200 m msl. In addition, ecological distribution suggested that dipterocarp forests should be divided into three subtypes namely, lowland dipterocarp forest, hill dipterocarp forest and upper dipterocarp forest.

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