

Winai Somprasong 2014: Taxonomic Revision of the Subtribe Barleriinae and Andrographinae (Acanthaceae) in Thailand. Doctor of Philosophy (Botany), Major Field: Botany, Department of Botany. Thesis Advisors: Associate Professor Srunya Vajrodaya, Dr.rer.nat. 147 pages.

Taxonomic revision of the subtribe Barleriinae and Andrographinae was carried out during October 2005 to July 2014. The literature and herbarium study were studied through a diagnostic herbarium specimens in various Thai and foreign herbaria in accordance with field surveys and specimen collection all over the country. The enumeration of thirty-eight species in the subtribe Barleriinae and Andrographinae (Acanthaceae) was recognized. A key to subtribes, genera and species of them was constructed in terms of identifying and description. The subtribe Barleriinae comprises of 3 genera, 15 species and subtribe Andrographinae comprises of 4 genera, 23 species. The result showed species have type locality in Thailand, subtribe Andrographinae, viz *Graphandra procumbens* Imlay, *Gymnostachyum coriaceum* Imlay, *G. gracile* Bremek., *G. signatum* (Benoist) Imlay, *G. trilobum* Ridl., *Phlogacanthus abbreviatus* (Craib) R. Ben., *P. murtonii* Craib, *P. pauciflorus* J.B. Imlay, *P. pedunculatus* J.B. Imlay, *P. racemosus* Brem., *P. rectiflorus* J.B. Imlay; subtribe Andrographinae, viz *Barleria biloba* Imlay, *B. siamensis* Craib, *Chroethes bracteata* (J.B. Imlay), *Lepidagathis chiengmaiensis* Bremek. and *L. dissimilis* Imlay.

Morphological features of seeds among the subtribe Barleriinae and Andrographinae (Acanthaceae) have been described as ovoid and strongly compressed or compressed. The features of testa were recognized in various characters such as rugulose-tubercle, rugulose, finely tuberculate, finely scaled coarsely scaled, sub-orbicular. The features of seed shape vary in different group, such as ovoid, ellipsoidal, suborbicular.

The pollen shape types of two subtribes had been divided into five distinct types, viz type-I (prolate spheroidal), type-II (oblate spheroidal), type-III (oblate), type-IV, type-V (suboblate). The pollen ornamentation showed seven types as type-I (reticulate tectum), type-II (open reticulate tectum), type-III (reticulate with granulate in lumina), type-IV (finely reticulate tectum with granulate in lumina): type-V (reticulate tectum with distinct aperture margin), type-VI (open reticulate tectum, granulate in lumina), type-VII (finely Reticulate tectum with distinct aperture margin).

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