

Wichai Aiyakool 2014: Clarification of Taxonomic Problem in Three Groups of *Glycosmis* [*Glycosmis pentaphylla* (Retz.) DC., *G. parva* Craib and *G. mauritiana* (Lam.) Tanaka] in Thailand. Master of Science (Botany), Major Field: Botany, Department of Botany. Thesis Advisor: Associate Professor Srunya Vajrodaya, Dr.rer.nat. 162 pages.

*Glycosmis pentaphylla* (Retz.) DC., *G. parva* Craib and *G. mauritiana* (Lam.) Tanaka represent the most widespread and variable species within the genus and there are still many taxonomic problems at the species level remain to be solved. Clarification of taxonomic problem in three groups of *Glycosmis* have been investigated during January 2011 – December 2013 by using morphological and chemical characters. The chemical characters of different plant parts (stem bark and leaves) of these three *Glycosmis* groups collected from different populations were compared by using chromatographic technique i.e. thin layer chromatography (TLC) and high performance liquid chromatography (HPLC).

The result of morphological study showed that within 19 populations, *Glycosmis* can be classified by ovary and leaf characters. It was shown that chemical characters in the same plant parts (stem bark and leaves) from each population of *G. parva* are similar as well as *G. mauritiana*, but there are some variation in *G. pentaphylla* collected from different populations. Thus, the chemical characters can be used in order to support the morphological characters of these three groups of *Glycosmis*, especially *G. mauritiana*.

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Thesis Advisor's signature