

Nopparut Toolmal 2014: Taxonomic Study of Orchidaceae at Kaeng Krachan National Park, Phetchaburi Province. Master of Science (Forest Biological Science), Major Field: Forest Biological Science, Department of Forest Biology. Thesis Advisor: Assistant Professor Sarawood Sungkaew, Ph.D. 549 pages.

The taxonomic study of Orchidaceae at Kaeng Krachan National Park, Phetchaburi Province, was conducted from January 2010 to December 2011. Field surveys and specimen collections were made along 4 routes, covering 3 vegetation types; the Moist evergreen forest at 400 m AMSL, Dry evergreen forest at 300-800 m AMSL, and Lower montane forest at 800-1,000 m AMSL. Totally, 95 species distributed among 49 genera and 3 subfamilies were found. The subfamily *Epidendroideae* Kostel. is the largest, in terms of the number of genera and species found, possessing 46 genera and 92 species, followed by *Orchidoideae* Eaton (2 genera and 2 species), and *Vanilloideae* Szlach. (1 genus and 1 species). Of these 95 species, *Dendrobium* Sw. is the most common genus, which 17 species were found; followed by *Bulbophyllum* Thouars (10 species); *Eria* Lindl. (8 species); *Cleisostoma* Blume and *Pholidota* Lindl. (4 species each); and *Acriopsis* Blume, *Chiloschista* Lindl., *Coelogyne* Lindl., *Cymbidium* Sw., *Pomatocalpa* Breda, *Tainia* Blume, *Trichoglottis* Blume and *Trichotosia* Blume (2 species each); and other 36 genera (only 1 species each). They can be divided into 4 different habits. 79 species are epiphytic orchids, 12 species are terrestrial, and 4 species are holomycotrophic. Their conservation status and use were also investigated. Six species are endemic, 2 species are rare, 3 species are endangered, and 1 species is vulnerable. One species is probably new to science, *Pholidota* sp. As for their uses; 11 species have been reported to be used as medicinal plant, 4 species are listed on the Thai medicinal plant database, 2 species are plant for human beliefs, 39 species can be regarded as potential ornamental plants, 26 species are aromatic plant, and 1 species is used to flavour food and drink.

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Student's signature

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Thesis Advisor's signature