

Three More New Records for the Thai Flora

Garuga floribunda Decne. var. *gamblei* (King ex Smith) Kalkm. (Burseraceae) and *Crawfurdia fasciculata* Wall. (Gentianaceae) are reported as additional species records, and *Gyrinops*, a new generic record, for the Thai flora.

***Garuga floribunda* Decne. var. *gamblei* (King ex Smith) Kalkm. (Burseraceae)**

POOMA (1999) includes one species of *Garuga*, viz. *G. pinnata* Roxb. for Thailand. Maxwell 94–298, from Doi Kuhn Dahn National Park, Mae Tah District, Lamphoon Province, was listed by Pooma under *G. pinnata*. KALKMAN (1953) conclusively shows how my specimen is quite different from typical *G. pinnata*, and is better referred to var. *gamblei*. My material was collected in flower at 1225 m on 2 March 1994 in primary, evergreen, seasonal, hardwood forest on granite bedrock. It was from a deciduous tree 20 m tall, dbh 52 cm, with only a few immature leaves present on some branch tips.

KALKMAN (1953) notes that the distribution of var. *gamblei* is India, Sikkim (type), Bangladesh, Yunnan, and Hainan. The varietal epithet, made in 1911, honours James Sykes Gamble (1847–1925), British botanist, who made many significant contributions to the flora of India and the Malay Peninsula.

***Crawfurdia fasciculata* Wall. (Gentianaceae)**

UBOLCHOLAKET (1987) includes one species of *Crawfurdia* for Thailand, viz. *C. trinervis* (Bl.) Dietr., from Khao Luang, Nakorn Sitammarat Province at 1700–1740 m elevation. Bleddyn Wynn–Jones collected *Crawfurdia fasciculata* Wall. (#7173) close to the Burmese border in the summit area of Doi Pahom Pok, Mae Aie District, Chiang Mai Province. Flowering material was collected in a shaded place in remnants of primary, evergreen, seasonal, hardwood forest at 2080 m on 7 December 1999 on granite bedrock. This species was described by N. Wallich in 1826 from the Khasia Mountains in NE Assam at 1000–2000 m and is also known from southern China (CLARKE, 1883). It grows as a slender vine with a purple calyx tube c. 11 mm long; linear, green lobes c. 9 mm long, and a lilac corolla c. 4 cm long. The pair of foliar bracts subtending some of the flowers is also a diagnostic feature of this species.

There has been considerable confusion and disagreement over the nomenclature and status of *Crawfurdia fasciculata* Wall. (CLARKE, 1883; SEALY, 1949, SMITH, 1965). These discussions are quite complex and very academic. The plate and description by HOOKER (1855) correspond to Wynn–Jones 7173, a unicate specimen, which is deposited in the CMU Herbarium (Figure 1).

Figure 1. Unicate flowering specimen of *Crawfordia fasciculata* Wall. in the CMU Herbarium. Photo: Cherdasak Kuarak.



Gyrinops Vidalii P.H. Ho (Thymelaeaceae)

PETERSON'S (1997) revision does not include this genus. *Gyrinops*, superficially resembling *Aquilaria*, is distinguished by having 5 petals and 5 antisealous stamens, while the latter has 10 of each. Pooma 1574 (BKF) was collected in flower on 7 May 1997 at Phuwua Wildlife Sanctuary, Bungkha (on the Mekong River, opposite Pak Sane, Laos), Nongkhai Province, at 250 m elevation. It was from a tree 10 m tall, found scattered in disturbed "dry evergreen" (*i.e.* seasonal evergreen hardwood) forest which had creamy-green "flowers" (*i.e.* calyx tube) and green calyx lobes. The local Thai name for this species is "gritsanah" which is also the same common name for *Aquilaria crassna* Pierre *ex* Lec. Ho described this species in 1986 from material collected by J. E. Vidal, a famous French botanist who collected extensively in Laos, in Vientiane Province, in shaded, seasonal, evergreen forest—an apparent endemic species.

According to HOU (1960), and HO (1992) *Gyrinops* includes one species in Sri Lanka and eight others from eastern Malesia, *viz.* Lesser Sunda Islands, Celebes, Moluccas, and Irian Jaya.

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REFERENCES

- CLARKE, C. B. 1883. Gentianaceae in *Flora of British India* 4, 107.
HO, P. H. 1992. Thymelaeaceae. *Flore du Cambodge, Laos, Vietnam* 26; 44, 52–55, and plate 8, 5–11.
HOOKER, W. J. 1855. Curtis's Botanical Magazine XI, tab. 4838.
HOU, D. 1960. Thymelaeaceae. *Flora of Malesia*. 6, 39–42.
KALKMAN, C. 1953. Revision of the Burseraceae of the Malaysia Area In a Wider Sense, VI. Revision of the Genus *Garuga* Roxburgh. *Blumea* 7: 2, 463–467.
PETERSON, B. 1997. Thymelaeaceae. *Flora of Thailand* 6: 3, 226–245.
POOMA, R. 1999. A Preliminary Account of Burseraceae In Thailand. *Thai Forest Bulletin (Botany)* 27, 57–58.
SEALY, J. R. 1949. Two Confused Asiatic Gentians. *Kew Bulletin* 1949, 311–317.
SMITH, H. 1965. Notes On Gentianaceae. *Notes Royal Botanic Garden Edinburgh* 26, 237–258.
UBOLCHOLAKET, A. 1987. Gentianaceae in *Flora of Thailand* 5: 1, 89–90.

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