

Botanical Notes on the Flora of Thailand: 4*

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ABSTRACT

Five species of vascular plants are discussed with the genera *Neothorelia* Gagnep. (*N. laotica* Gagnep., Capparaceae) and *Hovenia* Thunb. (*H. dulcis* Thunb., Rhamnaceae) reported as new records for the flora of Thailand. *Ventilago laotica* (Tard.) Maxw. (Rhamnaceae) is not only a new record, but also a new combination from *Berchemia laotica* Tard. The other two new records are *Desmodium laxiflorum* DC. ssp. *lacei* (Schindl.) Oha. (Leguminosae, Papilionoideae) and *Helixanthera brevicalyx* Dans. var. *hayatae* (Lec.) Dans. (Loranthaceae).

CAPPARACEAE

Neothorelia laotica Gagnep. NEW GENERIC AND SPECIES RECORD

This monotypic genus, described by the famous French botanist F. Gagnepain in 1908, is distinguished by having 6 sepals and 6 petals; alternate trifoliate leaves; numerous spaced stamens on a distinct androgynophore; 3-locular ovaries with two ovules in each locule; and a woody climbing habit. The species was described by GAGNEPAIN (1908) from material collected in Luang Prabang, Laos.

I found fruiting material of this species near Ban Saneh Pawng, a Karen village, in the southern part of Toong Yai Naresuan Wildlife Reserve, Lao Wo Subdistrict, Sangklaburi District, Kanchanaburi Province on 17 April 1994 at 400 m elevation. The specimens (Maxwell 94-547) were from a woody climber with a basal diameter of 7 cm. It was growing in a very degraded deciduous forest with much bamboo and seasonal fire in very rugged limestone terrain.

The species superficially resembles *Luvunga* (Rutaceae) which has glandular leaflets, fruits, etc.; hooked axillary spines, and completely different flowers.

The local Karen name for this plant is "tai mai baw".

RHAMNACEAE

Ventilago laotica (Tard.) Maxw. comb. nov. NEW RECORD

Berchemia laotica Tard. Not. Syst. XII (1946) 167 and Suppl. Fl. Gen. Indo-Chine (1948) 833-834 and fig. 105, 4-7 (p. 843).

Figure 1.

* continued from Nat. Hist. Bull. Siam Soc. 40 (1992) 185-189

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Eugene Poilane collected the original material of this species in Savannaket Province, Laos, which was described by Mme Tardieu-Blot in 1946 (TARDIEU-BLOT, 1948). It is a woody climber which I found on the base of the east side of Doi Kuhn Dahn (National Park), Hahng Chat District, Lampang Province, at Mae Pry Station on 6 December 1994 (Maxwell 94-1274). Growing at 350 m elevation in seasonal, mostly deciduous secondary growth, the material that I collected was in flower. *Berchemia laotica* Tard. was described from flowering material. A major generic distinction in SE. Asian Rhamnaceae is with the fruit: those in *Ventilago* being samaroid with a prominent apical wing, while *Berchemia* has globose drupes. Generic distinctions based on flowers, especially with *B. laotica*, are often difficult to make. Mature fruits (samaras) of this species were collected from the same plant on 17 February 1995 (Maxwell 95-128) and confirm the fact that this species belongs in *Ventilago* and not *Berchemia*. With fruits now available completion of the description of this species is now possible.

Infructescences pendulous; axes finely puberulous, dull light green; pedicels 4–6 mm long. Fruiting calyx cupular, closely adhering to the base of the fruit, margin truncate, finely puberulous, pale light green and drying brown; c. 2 x 5 mm, i.e. c. 1/3 as long as the seed part of the samara. Samaras finely puberulous, light greenish and drying light brown; seed part globose, c. 6 mm diameter; wing linear, tip acute, midnerve (placenta) distinct, finer venation reticulate, 45–57 x 9–10 mm.

Hovenia dulcis Thunb. NEW GENERIC AND SPECIES RECORD

This is a canopy tree 20–30 m tall, leafless from late December until early April, which has infructescences which attract many forest birds. I found this species in fruit at 1250 m elevation at Doi Kuhn Dhan National Park (Maxwell 93-1555, 26 December 1993). The higher infructescence axes (cymes) below the pedicels are swollen, fleshy, and red-brown. MABBERLEY (1989) notes that the “pedicels” are fleshy and sweet-tasting, and are used in traditional medicine for relieving hangovers, thus the species has more than taxonomic value for botanists. Since the capsules are thin-walled and dry, I assume that birds were eating the swollen infructescence axes. I collected leaves from a tree 16 m tall next to the one in fruit which was just starting to shed its leaves (Maxwell 93-1554). I have also seen this species on Doi Sutep (National Park, Chiang Mai), but have been unable to collect material of it because of its great height. It was completely leafless and had dropped all its infructescences at Ru-see Valley at 1075 m on 8 January 1994. New leaves are produced in early April while flowers appear at the end of this month. I collected post-flowering material at Doi Kuhn Dahn at 1150 m on 5 May 1994 (Maxwell 94-625).

This species is also known from subtropical Himalayas, China, Korea and Japan (LAWSON, 1875; SASTRI, 1959; SEN GUPTA & SAFUI, 1984; MABBERLEY, 1989). *Hovenia* has been considered by various botanists as being monotypic viz. *H. dulcis* (LAWSON, 1875; SASTRI, 1959) or having “about 8 species” (SEN GUPTA & SAFUI, 1984). SEN GUPTA & SAFUI (1984) note that *H. dulcis* is an extremely morphologically variable species and that segregation of variants is difficult. The fruiting collection from Doi Kuhn Dahn plus scraps collected on the ground on Doi Sutep, both of which have glabrous endocarps,

indicates that var. *dulcis* is represented here (MAKINO, 1961). SEN GUPTA & SAFUI (1984) distinguish var. *dulcis* from var. *acerba* (Lindl.) Seng. & Safui on some minor morphological differences of the inflorescences, sepals, and styles. Var. *dulcis* seems to be the best choice for Maxwell 94-625.

Hovenia dulcis is known locally at Doi Kuhn Dahn as “mawn hin” and according to SASTRI (1959) and MABBERLEY (1989) is also called the Japanese or Chinese raisin tree and coral tree. The specific epithet of this species refers to the sweetness of the infructescence axes.

LEGUMINOSAE, Papilionoideae

Desmodium laxiflorum DC. ssp. *lacei* (Schindl.) Oha. NEW RECORD

According to OHASHI (1973) ssp. *lacei* is only known from Burma. The type, collected by J.H. Lace on 14 December 1909 is from Saing Yani Reserve, Taungoo District (Moulmein area). It is readily distinguished from ssp. *laxiflorum*, which is relatively common in lowland deciduous forests of northern Thailand, by having almost exclusively unifoliate leaves, the blades of which are broadly ovate to suborbicular, rounded at the tip and truncate to slightly cordate at the base.

Material from Doi Kuhn Dahn National Park in Lampoon Province (Maxwell 94-1055, 29 September 1994, 550 m) was collected in degraded deciduous (former teak) forest and includes flowers and immature pods. Both ssp. *lacei* and ssp. *laxiflora* are sympatric and have similar phenologies at Doi Kuhn Dahn, however I have seen ssp. *lacei* only in the Hong Hahng Valley, near Tah Goo Station.

LORANTHACEAE

Helixanthera brevicalyx Dans. var. *hayatae* (Lec.) Dans. NEW RECORD

DANSER (1938) distinguished var. *hayatae* (Lec.) Dans. on the basis of having spicate inflorescences and completely sessile flowers. Var. *brevicalyx* has racemose inflorescences and flowers on pedicels 1.5–2.5 mm long. I collected material of var. *hayatae* (Maxwell 93-470) in a tea plantation on the south side of Doi Lang Gah, Ban Gampang Hin, Tep Sedet Subdistrict, Doi Saget District, Chiang Mai Province on 23 May 1993 at 1150 m. The forested area is disturbed, originally being primary evergreen in nature. The plant was growing on the branches of *Eurya acuminata* DC. var. *wallichii* Dyer (Theaceae).

The species is distinguished from the morphologically related *H. coccinea* (Jack) Dans. by the former having a depressed globose calyx c. 1 mm long and the latter with a cylindrical calyx more than 1 mm long. Var. *hayatae* was described with material from Annam, North Vietnam and until now was only known from that area. It was collected by Bunzo Hayata (1974-1934), a Japanese botanist. Var. *brevicalyx* (Latin = short calyx) was described from a single collection, also from Annam.

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REFERENCES

- DANSER, B.H. 1938. The Loranthaceae of French Indo-China and Siam. *Bull. Jard. Bot. Buitenzorg* III, XVI:1, 22-23 and fig. 2, d-e.
- GAGNEPAIN, F. 1908. *Caparidacées in Flore Générale de L'Indo-Chine I*, 198-199 and plate XVI, c: 14-20.
- LAWSON, M.A. 1875. Rhamnaceae in *Flora British India I*. L. Reeve & Co., London: 640.
- MABBERLEY, D.J. 1989. *The Plant Book*. Cambridge University Press. Cambridge: 281.
- MAKINO, T. 1961. *Makino's New Illustrated Flora of Japan*. Hokuryukan Co., Tokyo: 379 and plate 1515.
- OHASHI, H. 1973. The Asiatic Species of *Desmodium* and its Allied Genera (Leguminosae). *Ginkgoana* 1: 103, fig. 28 (p. 104), and plate 12b.
- SASTRI, B.N. ed. 1959. *Hovenia*. *Wealth of India* 5, 133.
- SEN GUPTA, G. AND B. SAFUI 1984. The Genus *Hovenia* Thunb. (Rhamnaceae) in the Indian Subcontinent. *Bull. Bot. Surv. India* 26: 1 & 2, 52-56.
- TARDIEU-BLOT, M^{me}. 1948. Rhamnacées in *Supplément, Flore Générale de L'Indo-Chine*: 833-834 and fig. 195, 4-7 (p. 843).



Figure 1. *Ventilago laotica* (Tard.) Maxw. (Rhamnaceae), new record for Thailand (Maxwell 94-1274). Photo: Dr. Steve Elliott, 8 December 1994.