

Report

Botanical notes

James F. Maxwell*

CMU Herbarium, Biology Department, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand

* E-mail: scopplrn@chiangmai.ac.th

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Abstract: *Indigofera caudata* Dunn (Leguminosae, Papilionoideae) is noted as a new record for Thailand. Two new combinations in *Hedyotis* from *Oldenlandia* (Rubiaceae) are made, viz. *Hedyotis krewanhensis* (Pierre ex Pit.) Maxw. and *Hedyotis chevalieri* (Pit.) Maxw.

Keywords: *Indigofera caudata* Dunn, *Oldenlandia krewanhensis* Pierre ex Pit., *Oldenlandia chevalieri* Pit., *Hedyotis krewanhensis* (Pierre ex Pit.) Maxw., *Hedyotis chevalieri* (Pit.) Maxw.

***Indigofera caudata* Dunn; Leguminosae, Papilionoideae; New Record for Thailand**

Craib [1] in the initial listing of Thai *Indigofera* included 22 species. de Kort & Thijsse [2] indicated that *Indigofera caudata* Dunn is known from Yunnan, China (type) and Laos. Thuan et al. [3] also included this species and noted that the material they examined was from Xieng Khouang Province, Laos at 1500 m elevation.

The QBG specimen Srisanga, Watthana, and La-Ongsri 865 from Doi Phu Kha National Park, Nan province is this species. It is distinguished by being a shrub with imparipinnate leaves having 3-4 opposite pairs of lanceolate leaflets, 3-6 x 2-2.5 cm, with mucronate tips and simple hairs underneath; 4-angled, brown-hirsute branches with similar indumentum on the axillary, spike-like racemes which are twice as long as the leaves; and wings obviously shorter than the standard and keel—all of which are white. The specimen was collected in flower at 1670 m elevation on 4 July 1999 in primary, evergreen, seasonal, hardwood (*sic.* hill evergreen) forest.

Indigofera longicaudata Thuan [3], from southern Vietnam, seems to be morphologically closely related, but has elliptic leaflets, shorter inflorescences, apparently different indumentum and red petals.

***Hedyotis* (Rubiaceae)**

Fukuoka [4] included 43 species in his revision of this genus for Thailand. Another 13 species were excluded due to insufficient material. In recent years, *Hedyotis bahaii* Maxw. has been newly described [5] while *Hedyotis kamputensis* (Pit.) Wangs. & Chant. [6], *Hedyotis ternatus* (Pierre ex Pit.) Maxw., and *Hedyotis linoides* (Griff.) Kurz [7] have been added. It is expected that more species of *Hedyotis* will be added to the Thai flora as more collections from the areas bordering Laos and Cambodia are collected and studied.

Pitard [8] included *Hedyotis* in *Oldenlandia* in which 8 sections were distinguished based mainly on the capsules, especially the mode of dehiscence. He included 71 species in his treatment for Indochina, most of which are now included in *Hedyotis*. Two of these species have been examined from CMU Herbarium material and are now transferred to *Hedyotis*.

1. *Hedyotis krewanhensis* (Pierre ex Pit.) Maxw. (Rubiaceae), *comb. nov.* (Figure 1)

Oldenlandia krewanhensis Pierre ex Pit., Flore Générale de L'Indo-Chine III (1922) 142 [8]

Pitard [8] included this species in *Oldenlandia* Sect. *Euoldenlandia* which has membranous, 2-valved, smooth capsules with longitudinal dehiscence and regular corollas. This species, an annual herb, has terminal and upper axillary, multiflorous cymes with all the flowers in several dense capitula. The calyces and capsules are hispidulous, the latter being *c.* 2 mm diameter.



Figure 1. One of the five syntypes of *Hedyotis krewanhensis* (Pierre ex Pit.) Maxw. in the Paris Herbarium (P). It was collected by Pierre from Mt. Krewanh, Cambodia, in July 1870.

I have made two collections of this species, both from islands in the Mekong River, Kratie province, Sambour district, Cambodia, viz. Maxwell 06-814 (capsules, Sahng Gawng Island, 13 November 2006) and 07-469 (flowers and capsules, Svan Island, 1 August 2007). Both collections were from degraded, fire damaged, deciduous, seasonal, hardwood forest with bamboo and nearby beach at *c.* 30 m elevation on metamorphic sandstone bedrock. The species was also observed in deciduous dipterocarp forest on other islands.

Pitard [8] noted that this species had been collected at Steung Treng, which is *c.* 20 km north of where I found it. Type material was from Mt. Krewanh, Pursat province, Cambodia, while the other specimens noted were from SW Vietnam.

There are at least five specimens of this species in the Paris Herbarium (P) collected and named by Pierre. Pierre 2002 (2 sheets) was from Mt. Krewanh and was collected in July 1870. There were three sheets of Pierre 2006, all from SW Vietnam. Two of them were from Tri-huyen, Hoa Bin province (April 1873). The other was from Lake Day, Chaudok, An Giang province (December 1867). Pierre *sn* was from Bé à Ti-tinh River, Song Be province, collected in February 1866 and was annotated by Pitard as *Oldenlandia krewanhensis*.

2. *Hedyotis chevalieri* (Pit.) Maxw., *comb. nov.* (Figure 2)

Oldenlandia chevalieri Pit., Flora Générale de L'Indo-Chine III (1922); 125-126 and Fig. 13 # 14 (p.115) [8]

This species was included in sect. *Diplophragma* by Pitard [8] in his revision of *Oldenlandia* for Indochina. In this section, it has dehiscent capsules in which the summits are not conspicuous, i.e. not concealed by the calyx lobes. *Hedyotis chevalieri* is easily recognised by being an annual herb up to 20 cm tall with dense whitish to brown indumentum on the quadrangular stems; peduncled, axillary, capitate, multi-flowered inflorescences; lobed stipules; globose, pubescent capsules 2 mm diameter with many seeds; and pubescent fruiting calyx lobes which are ovate-lanceolate, acute at the tip and *c.* 3 mm long.

The specimen examined was collected by J. Lawinheung, #17, from Huay Nahn village, Muang Wahng district, Wieng Chan province, Laos. It was found in a shaded place in primary, evergreen, seasonal, hardwood forest at 250 m elevation in fruit on 31 December 2001. The CMU specimen was distributed from the herbarium at the Biology Department, National University of Laos. The corolla is noted to be yellow and the leaf blades dark green above and dark purple underneath.

The type material was collected by the French botanist Auguste Chevalier (1873-1956) from Nghe Tinh (Nghe-an) province, Vietnam. This specimen, Chevalier 32442, in the Paris Herbarium (P) was collected on 10 May 1914.

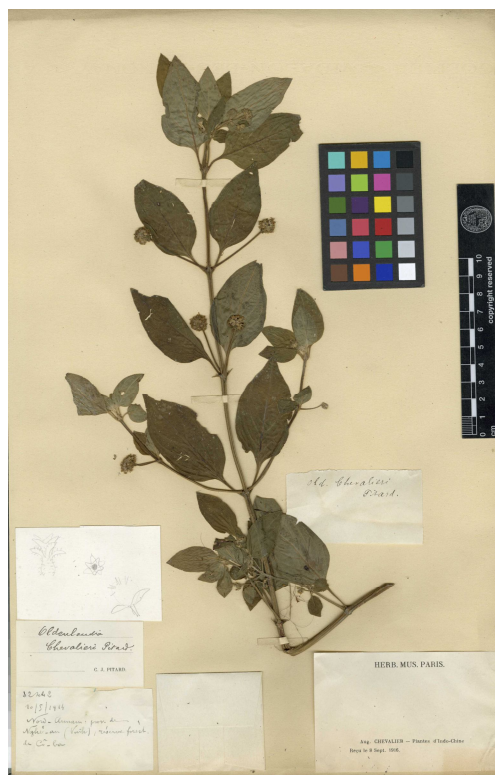


Figure 2. Chevalier 32442, holotype of *Hedyotis chevalieri* (Pit.) Maxw., in the Paris Herbarium (P). It was collected in Nghe Tinh (Nghe-an) province, north Vietnam on 10 May 1914.

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