

**NOTES ON THE IDENTITY AND NOMENCLATURE  
OF SOME SPECIES OF *INDIGOFERA* L.  
(LEGUMINOSAE-PAPILIONOIDEAE) OF CHINA**

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**Abstract:** *Indigofera hainanensis* described by Tsai & Yu (1936) and *I. chuniana* and *I. tsiangiana* by Metcalf (1940) from China (Hainan) are reduced as synonyms of *I. wightii* Grah. ex Wight & Arn., *I. colutea* (Burm. f.) Merr. and *I. liannaei* Ali respectively. A new name *Indigofera deqinensis* Sanj. is proposed here for *I. emarginata* Fang & Zhang.

**NOMENCLATURE TREATMENT**

**1. Synonyms:**

Identity of (a) *Indigofera hainanensis* Tsai & Yu, (b) *I. chuniana* Metcalf and (c) *I. tsiangiana* Metcalf.

(a) *Indigofera hainanensis* Tsai & Yu was described based on *S.K. Lau* 445 (PE) from Hainan in China. This species was considered allied to *Indigofera pseudotinctoria* but differs from it in having leaflets firm, adpressed hairy on both surfaces, calyx lobes short and broad, vexillum oblong. A critical study of the protologue and the specimen (type could not be examined) from which the fruit characters were subsequently added by Metcalf (in *Sunyatsenia* 4:154. 1940) indicate that *I. hainanensis* is nothing but *I. wightii* described by Wight and Arnot (1834) from Peninsular India. In 1890 Franchet described the same species based on collection of Delavay from Yunnan. The correct nomenclature of the species is as follows:

***Indigofera wightii*** Grah. ex Wight & Arn., Prodr. 202.1834 — Type: India, *Wallich* 5458 (K-W, Photo! CAL!).

*I. inamoena* Thw., Enum. Pl. Zeyl. 83.1859 — Type: Sri Lanka ('Ceylon'), *Thwaites* 3513 (K, Photo! P, CAL!).

*I. cinerascens* Franch., Pl. Delav. 153. 1890 — Type: China (Yunnan), *Tapintze*, *Delavay* 519 (P, n.v.).

*I. pallida* Craib, Kew, Bull. 1927:56.1927 et Fl. Siam. Enum. 1:380. 1928 — Type: Thailand, Maharat, Lampang, *Kerr* 3083 (CAL! BM, K, SING).

*I. hainanensis* Tsai & Yu, Bull. Fan Mem. Inst. Biol. 7:30. 1936, **Syn. nov.**; Metcalf, *Sunyatsenia* 4:154. 1940 — Type China, Hainan, Chiu-Sam-Tsuen of Ngai-Hsien, Aug. 7-25, 1932 (6th Hainan Expedition Lingnan, University *S.K. Lau* 445 (PE, n.v.).

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*Distribution:* China (Yunnan, Hainan), India, Burma, Thailand, Vietnam, Laos, Cambodia, Sri Lanka.

(b) *Indigofera chuniana* Metcalf was described based on a collection from Hainan by H.Y. Liang. It was distinguished from *I. hainanensis* Tsai & Yu (which is now *I. wightii* Grah. ex Wight & Arn.) based on the presence of densely and minutely capitate glandular hairs on branches, leaf-rachis, inflorescence, pedicels and pods. A critical examination of the description and types of *I. chuniana* (Plate 38 of Metcalf (*l.c.*) revealed that it belongs to well known *I. colutea* (Burm. f.) Merr. The gland-tipped hairs shown in figure 31 given by Metcalf (1940) and a glance at plate 38 given by Metcalf are sufficient to confirm that the species is *I. colutea*. Therefore, *I. chuniana* Metcalf is reduced here as a synonym of *I. colutea* (Burm. f.) Merr. The detailed nomenclature is as follows:

***Indigofera colutea*** (Burm. f.) Merr., Philippine J. Sci. 19:355. 1921 — *Galega colutea* Burm f., Fl. Ind. 1768.

*I. viscosa* Lam., Encycl. 3:247.1768 — *Type:* Herb. Sloane, Vol. 95, fol. 185 (BM, Photo!) [Pluk. Phyt. t. 66, f.3. 1691].

*I. chuniana* Metcalf, Sunyatsenia 4:155.1940, **syn.nov.** — *Type:* China, Hainan, Yaichow, Sept. 2, 1933, H.Y. Liang 62847 (A!)

*Distribution:* China (Hainan), India, Afghanistan, Pakistan, Arabia, Africa, Sri Lanka, Burma, Thailand, Vietnam, Malesia, Australia, New Zealand.

*Notes:* 1. Although there are more than ten synonyms under the species, only relevant ones are given here. 2. The gland-tipped hairs are also present on lower surface of leaflets, stipules, outer surface of calyx lobes and midrib area of vexillum in addition to branches, rachis, and pods. 3. Metcalf (*l.c.*) did not describe seeds, therefore, the seed characters are added here to further help in identification of the species. Seeds 1.0-1.2 × 1.0 mm, cubical, truncate at both ends, obscurely foveolate-reticulate on sides, reddish-brown. 4. The only other species known to have gland-tipped hairs from China is *Indigofera scabrida* Dunn but it differs from *I. colutea* in having larger elliptic leaflets., 10-15 cm long, many-flowered racemes and pods without gland-tipped hairs.

c) *Indigofera tsiangiana* Metcalf was described based on another collection of Hainan by S.K. Lau. It is also compared with *I. hainanensis* Tsai & Yu and distinguished from it by the presence of unique bracts, shorter and oblong pods and lanceolate-acuminate calyx lobes. *I. tsiangiana* differs from *I. hainanensis* (treated in this paper as *I. wightii* Grah. ex Wight & Arn.) in many characters such as habit, stem, leaves, inflorescence, flowers and pods. Indeed, they belong to altogether different sections of the genus. A glance at plate 39 (Isotype), a careful examination of figure 32 (showing floral parts and pod) and protologue and the type specimen (Metcalf *l.c.*) clearly indicate that the species completely matches with *I. linnaei* Ali (earlier known under the name *I. enneaphylla* L.). Therefore, *I.*

*tsiangiana* is relegated to synonymy of *I. linnaei* and the correct nomenclature is as follows:

***Indigofera linnaei*** Ali, Bot. Notis. 111:549.1958 — *Hedysarum prostratum* L., Mant. Pl. 1:102.1767 — *I. enneaphylla* L., Mant. Pl.2:272.1771, *nom. illeg.* — *I. prostrata* (L.) Domin, Bibl. Bot. 89:187.1926 non *I. prostrata* Willd., 1802 — *I. dominii* Eichler in Black, Fl. S. Australia ed. 2, Suppl. 190. 1965 — Type: India, Coramandel, Herb. Sloane 95, f. 186 (BM, Photo!).

*Hedysarum prostratum* Burm. f., Fl. Ind. 168, t. 55, f. 1.1768 — Type: Plate 55, f. 1 in Burm. f. *l.c.*

*Indigofera tsiangiana* Metcalf, Sunyatsenia 4:156.1940, **syn. nov.** — Type: China, Hainan, Yaichow, Wang-Kan-Shan, Oct. 19, 1932, S.K. Lau 602 (A!).

*Distribution:* China (Hainan), India, Nepal, Bangladesh, Burma, Thailand, Vietnam, Indonesia, New Guinea, Australia.

*Notes:* Metcalf (*l.c.*) described 'bracts ovate, acuminate, white, subhyaline with serrate margin, calyx lobes subglabrous within'. However, the margin of bracts is not serrate but it is ciliate, while calyx lobes are completely glabrous within.

## 2. New name:

Fang and Zhang (in Acta Phytotax. Sin. 21:329.1983) described *Indigofera emarginata* based on a collection from Deqin, Yunnan (*T.T.Yu* 10074). This name, unfortunately is a later homonym of *Indigofera emarginata* G. Don (*Gen. Syst.* 2:209.1832) from Sierra Leone (W. Africa) and also of Guill. and Perr (*Fl. Senegal. Tent.* 1:178.1838) from Senegal and therefore, a new name *I. deqinensis* Sanj. is proposed here for the Chinese plant.

***Indigofera deqinensis*** Sanj., **nom. nov.**

*I. emarginata* Fang & Zhang in Acta Phytotax. Sin. 2:329, f.4. 1983 non G. Don 1832 — Type: China, Yunan, Degin, alt. 3200m, in Sylvis montium, *T.T.Yu* 10074 (SCBI).

*Distribution:* The species is so far known from type locality only.

*Note:* The species is named after the type locality.

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# 關於數種中國產木藍屬植物名稱之變更

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## 摘 要

三種產於中國海南的木藍屬植物 *Indigofera hainanensis* Tsai & Yu, *I. chuniana* Metcalf 及 *I. tsiangiana* Metcalf 應分別為 *I. wightii* Grah. ex Wight & Arn., *I. colutea* (Burm. f.) Merr., 及 *I. liannaei* Ali 之異名；另一種產於中國雲南的 *I. emarginata* Fang & Zhang 實為後同名，其新名稱為 *I. deqinensis* Sanj。