

## ***Helicteres prostrata* (Malvaceae), a new record for Thailand and lectotypifications of *H. poilanei* and *H. vinosa***

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### ABSTRACT

A new record, *Helicteres prostrata* in Thailand is described and illustrated. Lectotypes of *H. poilanei* and *H. vinosa* are also selected.

KEYWORDS: Helicteroideae, Phu Phan, typification.

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### INTRODUCTION

*Helicteres* was described by Linnaeus (1753), with two species, *H. angustifolia* L. and *H. isora* L. The genus of ca 60 species is in the family Malvaceae subfamily Helicteroideae (Bayer 1999; Simpson, 2006) and occurs in tropical America and Asia (Mabberley, 2008). It is characterized by stamens and pistil on an androgynophore, united sepals, oblong fruits with hairs, and wingless seeds. The first checklist of *Helicteres* species in Thailand by Craib (1925) included 11 species and two varieties. Later, in the account of the genus *Helicteres* for the Flora of Thailand, seven species (eight taxa) were reported by Phengklai (1995, 2001). During field investigation in Phu Phan National Park, Sakon Nakhon province, north-eastern Thailand, some collections were collected and later identified as *H. prostrata* S.Y.Liu, a new record for Thailand. *Helicteres poilanei* Tardieu and *H. vinosa* Craib are also lectotypified.

### NEW RECORDS

***Helicteres prostrata*** S.Y.Liu, Acta Phytotax. Sin. 37(6): 601. 1999. Type: China, Guangxi, Tiandong, Pingma, 25 Jun. 1993, Liu 002723 (holotype **PE!** [00108353]; isotypes **PE!** [00108354], **IBK** n.v.). Fig. 1.

Prostrate herb with many branches; branches terete, brownish, glabrescent. *Leaves* coriaceous, alternate, oblong, oblong-ovate or ovate, 2–7 × 2–4 cm; base obtuse or rounded; margin entire, denticulate along apical half; apex acute; upper surface green, glabrous; lower surface pale green, hairy, brownish when dry; basal veins 5, lateral veins 4–7 pairs; petioles 2–5 mm long, hairy; stipules 3–4 mm long, filiform or linear, hairy. *Inflorescences* axillary or terminal, 1–2 per axil, 2–5-flowered; peduncle 4–10 mm long, hairy; bract and epicalyx linear. *Flowers* with short pedicel. *Calyx* campanulate, 5–7 mm long, 5-lobed, unequal, whitish green, hairy. *Corolla* 5, valvate, free, slightly unequal, purplish or whitish purplish, 9–10 × 4 mm, spatulate, with unequal appendages along the claw, hairy. *Androgynophore* 5 mm long, hairy at base. *Stamens* 10, alternating with 5 staminodes; staminodes broadly lanceolate; filaments coalescent, surrounding ovary; anthers ca 0.5 mm long, oblong. *Ovary* superior, ovoid or globose, 5-locular, densely hairy, with numerous ovules; style ca 1 mm long; stigma 5-toothed. *Fruit* a capsule, ellipsoid or cylindric, straight, 1.5–2.3 × 0.8–1 cm, with 5 longitudinal lobes, hairy. *Seeds* many, 2.5–4 × 1.5–2 mm, angled when dry.

Thailand.— NORTHERN: Chiang Mai [Doi Suthep National Park, 10 June 1993, *Phuakam* 15

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Figure 1. *Helicteres prostrata* S.Y.Liu: A. inflorescence. B. fruit. Photographed by Pornchai Kladwong.

(**BKF**); Nan [Km 40–57, west of Nan along road to Phayao, 27 July 1992, *Larsen et al.* 43660 (**BKF**)]; Phitsanulok [Thung Salaeng Luang National Park, 24 July 1966, *Larsen et al.* 820 (**AAU**)]; NORTH-EASTERN: Sakon Nakhon [Phu Phan National Park, 24 Jun. 2016, *Poompo* 08 (**KKU**); *ibid.*, 11 Aug. 2018, *Chantaranothai et al.* 18-01 (**KKU**)].

Distribution.— China.

Ecology.— Partly open area in deciduous forest, 350–700 m alt.; flowering June–September; fruiting July–October.

Vernacular.— Khi on lueai (ซึ้อนเลื้อย).

Notes.— *Helicteres prostrata* has a similar habit to that of *H. elliptica* Tardieu but differs in having an ovate or oblong leaf shape and hairs on both surfaces of the leaves. This work has emended the original description by adding fruit and seed information. This species was known from Guangxi, southern China and its range is now extended southward to northern and north-eastern Thailand, and it is likely to occur in Laos and Vietnam.

## LECTOTYPIFICATIONS

***Helicteres poilanei*** Tardieu, *Notul. Syst.* (Paris) 10: 234. 1942. Type: Vietnam, Annam, Cana, Phanrang province, 100 m alt., 1 Dec. 1923, *Poilane* 8978 (lectotype **P!** [P06605666], selected here; isolectotypes **P!** [P06605665, P06605667]).

Notes.— This species is based on one collection with three sheets. The sheet P06605666 is selected as the lectotype because it has line drawings of flowers and more floral material. This species is restricted to Vietnam.

***Helicteres hirsuta*** Lour., *Fl. Cochinch.* 2: 530. 1790.

— *H. vinosa* Craib, *Bull. Misc. Inform. Kew* 1924(3): 90. 1924. Type: Thailand, Phitsanulok, Nakhon Thai (Nakawn Tai), 16 Apr. 1922, *Kerr* 5846 (lectotype **K!** [K000671820] selected here; isolectotypes **BK!** [257536], **BM!** [BM000946548], **E!** [E00284368], **K!** [K000671819], **TCD!** [TCD0010861]).

Notes.— Craib (1924) described *Helicteres vinosa* based on six sheets of the type collection, *Kerr* 5846 (K000671819, K000671820, 257536, BM000946548, E00284368, TCD0010861). After careful examination, K000671820 is selected here as the lectotype, because it has more details of plant with three fruits.

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