THAI FOR. BULL. (BOT.) 41: 10–12. 2013.

A new species of *Pterospermum* Schreb. (Dombeyoideae, Malvaceae/Sterculiaceae) from southern Thailand

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ABSTRACT. *Pterospermum gracile* P.Wilkie from Southern Thailand is described as new to science and illustrated. It is most similar to *Pterospermum javanicum* Jungh. and *P. cinnamomeum* Kurz. It is distinctive by its graceful pendulous habit, asymmetrical leaf shape, deeply divided calyx lobes and narrow corolla lobes.

KEY WORDS: Dombeyoideae, flowers, *Pterospermum*, Southern Thailand, Sterculiaceae.

INTRODUCTION

Pterospermum is composed of approximately 30 species. It is distributed from the East Himalayas and South China, through Southeast Asia to the Moluccas. The genus has been revised for the Flora of Thailand (Phengklai, 2001) but no monograph of the genus throughout its distribution has been undertaken for which there is a desperate need.

A collection from Khao Phanom Bencha National Park, Muang Krabi district, Thailand (*Gardner & Sidisunthorn ST2171*) was sent to me by the collectors for identification. Having compared this specimen with all other species of the genus held in E, K and L and using all major regional accounts of the genus (Kurz, 1877, Gagnepain 1911, 1945; Pham-hoang, 1999; Phengklai, 2001) it became clear that it was an undescribed species.

Pterospermum gracile is most similar to *P. javanicum* Jungh. (inc. *P. blumeanum* Korth.) and *P. cinnamomeum* Kurz. The asymmetric leaf shape places it close to *P. javanicum* but the leaves of *P. javanicum* are much less asymmetric, the flowers are much smaller (4.5–5 cm long as opposed to 7–8.5 cm long) and the corolla lobes are much wider (5–10 mm at widest point as opposed to 3–5 mm at widest point). Although leaf size is variable in *P. javanicum* they tend to be smaller than those of *P. gracile*. Of those species recorded from Thailand it is most similar to *P. cinnamomeum* but this species has largely symmetric leaves, its leaves are wider (3–6 cm), its corolla lobes wider (8–10 mm) and it has a much shorter fruit (c. 4.5 cm long).

DESCRIPTION

Pterospermum gracile P.Wilkie, **sp. nov.** Fig. 1.

Pterospermum gracile P.Wilkie, *sp. nov.* Medium sized tree which is most closely affiliated with *Pterospermum javanicum* Jungh. The branches, flowers and fruits are hanging. The leaves are strongly asymmetrical with one side of the base acute and the other semi-cordate. The calyx and corolla lobes are both narrow and deeply divided. – Type: Thailand, Krabi Province, Muang Krabi District, Khao Phanom Bencha National Park, Headquarters, 8º 14′ N, 98º 55′ E, rocky semi-open area next to permanent stream at edge of lowland evergreen forest. *S. Gardner & P. Sidisunthorn ST2171* (holo **E!**; iso **BKF**, **K!**).

Tree to 15 m tall, 21 cm diameter. *Bark* orange-pale brown, 1–5 mm thick, rugged, middle bark green, inner bark cream-pale yellow, no latex. *Leaves* alternate; petiole 1–4 mm long, 1–1.5 mm in diameter, blade strongly asymmetrical, 4.5–13 cm long, 2–3.5 cm wide at widest point, base asymmetrical, acute in one half, half-caudate on the other, apex acuminate, acumen to 2 cm long, margin entire, upper surface of young leaves

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occasionally covered with dense stellate hairs but quickly glabrescent, when fresh dark green, drying tan-brown, lower surface with dense mat of white-tan woolly hairs and larger scattered stellate hairs, when fresh white, drying tan, basal veins (including midrib) 3–4(–5), with an occasional faint vein on the half-cordate side, secondary veins (excluding basal ones) 3–4(–5) pairs, slightly raised on upper surface, raised on lower surface, tertiary veins ladder-like, distinctive on upper surface, less so on lower surface. *Stipules* linear, 7–9 mm long, covered in stellate hairs, early caducous. *Pedicels* 3–3.5 cm long. *Bracts* absent, bracteoles 1–5, rounded at base, 1–1.5 mm long with linear appendages 5–12 mm long, <1 mm wide, with dense tan stellate hairs. *Flowers* axillary, solitary, hanging below the leaves. *Calyx* 5-lobed, lobes spathulate, to 8.5 cm long, 1–2 mm wide, narrowly fused at base, becoming free 5–10 mm from bracteoles, both surfaces drying tan-pale brown, outer surface covered with dense yellow-orange adpressed simple hairs and reddish orange stellate hairs, inner surface with only dense yellow-orange adpressed simple hairs. *Corolla* 5-lobed, white when fresh, drying brown, papery, lobes spathulate, 3–4.5 cm long, 3–5 mm wide, glabrous on both surfaces. *Androgynophore* 8–10 mm long (from where calyx becomes free). *Staminodes* 5, forming tube (with stamens) around androgynophore, becoming free at base of ovary, linear, free part 2.5–4 cm long, ca 0.5 mm wide, glabrous but covered in pustules along apical half. *Stamens* 15, in bundles of 3, becoming free ca 10 mm from base of ovary, 2–2.5 cm long, <0.5 mm wide, glabrous, anthers ca 7 mm long, ca 1 mm wide, straight to coiling. *Ovary* on androgynophore 8–10 mm from point at which calyx lobes become free, oblong, ca 6 mm long, ca 2 mm wide, with dense stellate and simple hairs, 5-locular, style ca 3.5 cm long, densely stellate hairy at base, becoming glabrous towards apex, stigma ca 7 mm long, ca 1 mm wide, glabrous. *Fruit* a narrowly ovoid woody 5-locular capsule, loculicidal, ca 11 cm long, ca 2.5 cm wide, covered in dense minute orange-brown stellate hairs, quickly becoming glabrous, the margin of each locule not undulating. *Seeds* papery, winged, ca 5.5 cm long, ca 1 cm wide (including wing), embryo ellipsoid, rather flat, 12–15 mm long, 6–7 mm wide, with sparse minute stellate hairs.

Thailand.— PENINSULAR: Krabi [Khao Phanom Bencha National Park, Headquarters, *S. Gardner & P. Sidisunthorn ST2171* (**BKF**, **E!**, **K!**)].

Distribution.— Peninsular Thailand.

Ecology.— Rocky semi-open area next to permanent stream at edge of lowland evergreen forest. Flowering January.

Etymology.— The epithet ‘gracile’ refers to its graceful pendulous habit (it would make a good ornamental).

Proposed IUCN Conservation Status.— Although this species is only known from the type locality, as it is in a National Park it has been assigned a conservation status of least concern (LC).

ACKNOWLEDGEMENTS

I thank Simon Gardner and Pindar Sidisunthorn for making me aware of this collection, Claire Banks for preparing the illustration. I should also like to thank the anonymous reviewer and the staff of E, K and L herbaria.

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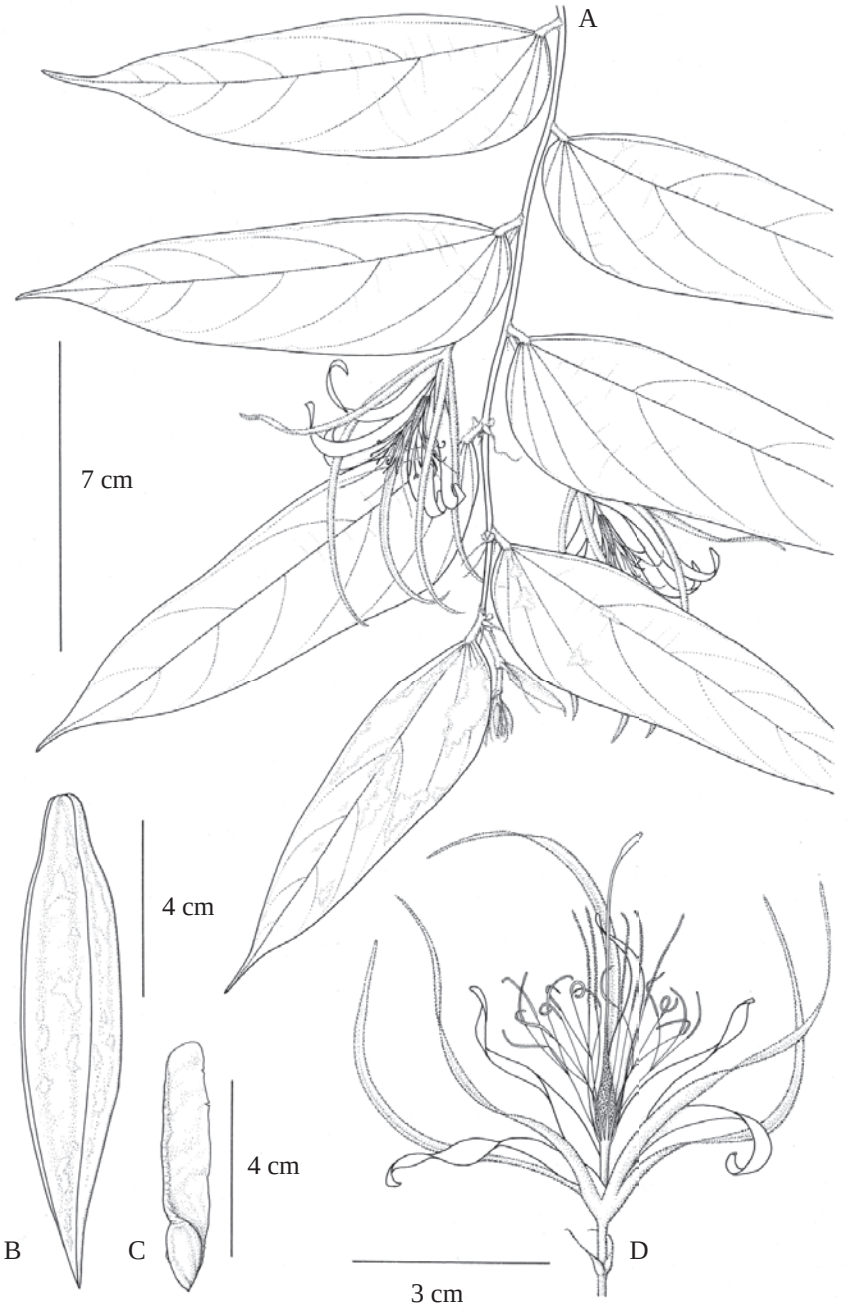

Figure 1. *Pterospermum gracile* P.Wilkie. A. Leafy twig with flowers; B. Fruit; C. Seed; D. Flower. From *S. Gardner & P. Sidisunthorn ST2171* (E). Drawn by Claire Banks.