

***Hoya imperialis* Lindl. (Apocynaceae: Asclepiadoideae), a new record for Thailand**

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ABSTRACT. *Hoya imperialis* Lindl. is newly recorded for Thailand from Betong district in Yala province. The species is described and illustrated.

KEYWORDS: *Hoya*, Asclepiadoideae, Apocynaceae, new record, Yala province.

INTRODUCTION

The Genus *Hoya* R.Br. (Apocynaceae: Asclepiadoideae) comprises approximately at least 200 species (Wanntorp et al., 2006). It is distributed in Asia and Australasia (Hooker, 1883; Ridley, 1923; Li et al., 1995). Kerr (1951) recognised 24 species of *Hoya* in Thailand. Recently, during a survey on some isolated rocky mountains along Thai-Malaysian border, many Malesian elements were collected. One of them is *Hoya imperialis* Lindl., which is a new record for Thailand.

Hoya imperialis Lindl. has one of the largest flowers of all species in the genus *Hoya*. It has been, in fact, well known in the trade name *Hoya* “Chakra Bhad” (meaning “Emperor *Hoya*” -Authors). Introduced plants from Borneo have been cultivated as ornamental plants in Thailand for some years. The species was previously recorded from mangrove and lowland forests in Johore, Melaka, Perak, Selangor and Borneo (Rintz, 1978). Until the discovery of this species in southern Thailand, the Perak region in the north of Malaysia was the northernmost limit of wild populations of this species.

***Hoya imperialis* Lindl.**, Bot. Reg. sub t. 68. 1846; Hook.f., Fl. Brit. India 4: 59. 1883; Ridl., Fl. Malay Penins. 2: 399. 1967; Rintz, Malay. Nat. J. 30 (3–4): 501, 503. Fig. 18. 1978. Figs. 1–2.

Climber, stem scandent, 0.5–1.5 cm in diam., pubescent, internodes 5–25 cm long; latex white. *Leaves* coriaceous, rigid, thick and fleshy; petioles 1–1.5 cm long, diameter 2–2.5 mm, pubescent; blades obovate-lanceolate to oblong, elliptic or oblanceolate, 5–15 by 2–5 cm, glabrous on both surfaces, upper surface shining, apex short acuminate and usually reflexed, base rounded or acute, margin entire or undulate, slightly recurved, ciliated; midrib channelled above when dry, prominent underneath, ciliated on both surfaces, secondary

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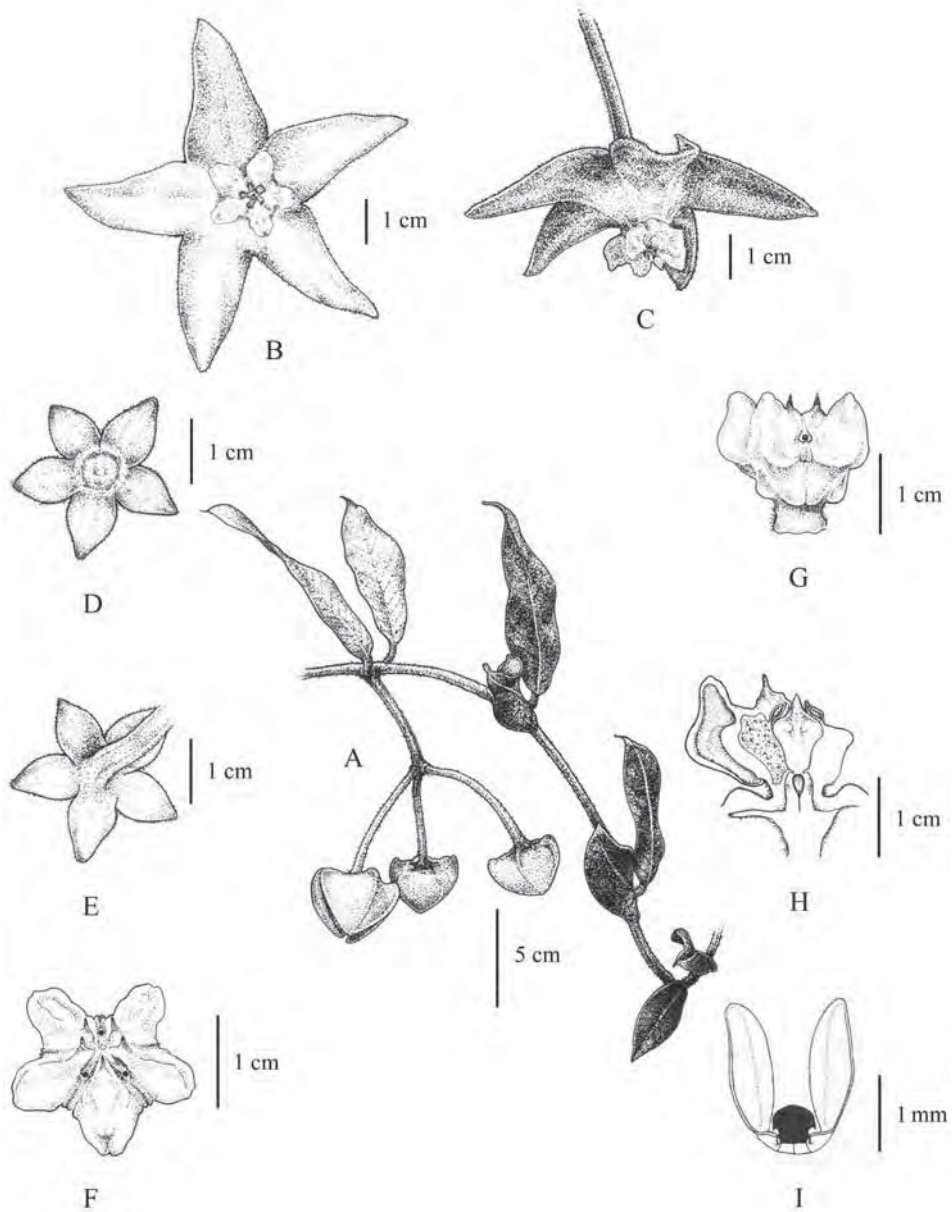


Figure 1. *Hoya imperialis* Lindl.: A. branch; B, C. flower: top view and side view; D, E. calyx; F, G. corona; H. flower in longitudinal section; I. pollinarium. All from *Wai* 540 (PSU). Drawn by M. Intarasiri (A–H); J. Wai (I).



Figure 2. *Hoya imperialis* Lindl.: A, B. Gunung Silipid, a new locality of *Hoya imperialis* Lindl.; C, D. habit; E. inflorescences; F. flower; G. calyx; H. corolla lobe; I. marginal hairs of corolla lobe; J. adaxial corolla tube surface; K. gynostegium including corona in top view; L. pollinarium. Photographed by J. Wai.

veins simple or once forked, 19–23 pairs, intramarginal vein present, inconspicuous, veins anastomosing with included free veinlets. *Inflorescences* axillary or terminal; peduncle 5–12 cm long, diameter 4–5 mm, thick, fleshy, pubescent; pseudoumbel convex, positively geotropic, of 1–19 flowers, lasting 2–3 weeks; bracts triangular, 1–3 by 2–5 mm, outer surface pubescent; pedicels uniform 6.5–7 cm long with scattered glands below the receptacle, pubescent. *Calyx* persistent, 5 lobed, 2–2.5 cm in diam., pale green, outer surface pubescent with scattered glands, inner surface glabrous; calyx lobes ovate, apex $\pm$ acute, based overlapping, quincuncial, 7–10 by 6–8 mm. *Corolla* spreading in star-shape when fully open, 5 lobed, 7–9 cm in diameter.; corolla tube shorter 1–1.5 cm long, inner surface creamy white, between lobes reddish-purple, finely pubescent, outer surface pale yellow to pale green with sparsely reddish-purple glands, glabrous; corolla lobes ovate, 2.5–3 by 2–2.5 cm, apex acute, inner surface dark red or reddish-purple, outer surface pale yellow to pale green with scattered reddish purple glands, glabrous on both surfaces, margin recurved with ciliate hairs. *Corona* massive, diameter ca 2 cm, creamy white, outside glabrous, with very short pubescent stalk; coronal scales ovoid, ca 10 by 4.5 mm, inner angle $\pm$ acute, outer angle retuse, raised from corolla, ca 1.2 cm thick; inner lobe with a conical process or a spine like appendage, inside solid with dense soft spongy-like tissue around stigma; outer lobe blunt, upcurved, inside hollow, inner surface pubescent; anther appendage covering the receptive area of stigma, creamy white; anther wing rigid ca 0.35 cm long, yellowish-white; corpuscle brownish-black, small ca 0.5 mm, slightly rounded-subquadrangular; pollinia winged, obliquely oblong, 2–2.5 by 0.5–0.7 mm, yellow. *Style head* $\pm$ quadrangular, conical, 8–9 by ca 6 mm, creamy white. *Ovaries* 5–7 mm long, pale green, glabrous; style very short; ovules numerous. *Fruits and seeds* not seen.

Thailand.—PENINSULAR: Yala [Betong district, Gunung Silipid, 8 Jan. 2006, *Wai* 540 (PSU, BCU)]

Distribution.—Borneo and Peninsular Malaysia.

Ecology.—On thin layer moist podzolic soil over a rocky base, among metamorphic rock (Quartzitic phyllite) crevice of (one) mountain ridge; altitude 650 m; recorded from mangrove and lowland forest (outside Thailand). Very rare in Thailand. Flowering in December-February.

Note.—Only one plant was found in the present study. Additional specimens and field surveys along Thai-Malaysian border are still needed.

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