A preliminary study of the genus *Hornstedtia* (Zingiberaceae) in Thailand

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ABSTRACT. The taxonomy of the genus *Hornstedtia* Retz. in Thailand is re-evaluated. Four species are recognized, *H. conica* Ridl., *H. minor* (Blume) Valeton, *H. leonurus* (J.König) Retz. and *H. scyphifera* (J. König) Steud. All of them occur in Peninsular Thailand. *Hornstedtia scyphifera* and *H. leonurus* are widely distributed, whereas *H. conica* and *H. minor* are found near the Thai-Malaysian border in Yala and Narathiwat provinces only. A key to species and photographs of *H. conica*, *H. leonurus* and *H. minor* are provided.

KEY WORDS: *Hornstedtia*, Thailand, Taxonomy.

INTRODUCTION

The genus *Hornstedtia* Retz. was established by Retzius (1791). *Hornstedtia scyphifera* (J. König) Steud. was initially the only species recognized in Thailand (Larsen, 1996). Subsequently three other species have been recorded from peninsular Thailand (Maknoi & Sirirugsa, 2002), *H. conica* Ridl., *H. minor* (Blume) Valeton, (syn. *H. ophiuchus* (Ridl.) Ridl.) and *H. leonurus* (J.König) Retz.

TAXONOMIC TREATMENT

**HORNSTEDTIA**


Perennial herb; rhizome creeping, sometimes supported by stilt-roots above ground, branched, woody. *Pseudostem* robust, with swollen base. *Leaves* sessile or petiolate; ligule conspicuous; leaf blades oblong or lanceolate. *Inflorescence* arising from rhizome near base of pseudostems, sometimes lower half embedded in ground, ovoid or fusiform; peduncle short, covered by short sheaths; bracts densely imbricate, outer ones rigid, coloured, pubescens, inner ones membranous, usually white, glabrous.

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Calyx tubular, split down one side, apex 3-toothed or 2-lobed. Corolla tube long, slender, curved; dorsal lobe erect, hooded, lateral ones shallowly concave, apex rounded or obtuse, partly adnate to labellum. Lateral staminodes reduced to small teeth at base of labellum or absent. Labellum equal to corolla lobes or longer, narrow, concave and fleshy, ovate, base auriculate, apex oblong-rounded. Filament short; connective appendage emarginate. Ovary oblong, 3-locular. Style slender; stigma funnel form. Stylodes 2, united or free.

Key to species of Hornstedtia in Thailand

1. Labellum much longer than corolla lobe
   1'. Labellum more or less equal to corolla lobe

2. Lateral corolla lobes folded within dorsal lobe
   2'. Lateral corolla lobes free from dorsal lobe

3. Calyx as long as corolla tube
   3'. Calyx half length of corolla tube


Leaf sheath finely ribbed with cross bars; blade glabrous on both surfaces, base truncate, apex caudate. Inflorescence fusiform, c. 11 cm long; including peduncle. Involucral bracts finely ribbed, with appressed hairs. Labellum 3 cm long, with thicker middle band, apex rounded, edge wrinkled.

Thailand.—PENINSULAR: Narathiwat [Waeng, 18 June 1999, Maknoi T11 (PSU, QBG)].

Distribution.—Peninsular Malaysia, Sarawak, Java.


Leaf sheath shallowly ribbed, glabrous, dark brown; blade oblong, glabrous, with yellow patch along mid-vein, base unequally cordate, apex acuminate. Inflorescence c. 9 cm, mostly embedded in soil. Involucral bract finely ribbed, with short white hairs. Calyx silky hairy, denser on veins. Lateral corolla lobes covered by dorsal lobe. Labellum 3 cm long, dark red; mid-lobes narrowly triangular, apex rounded.

Distribution.— Peninsular Malaysia, Singapore.


Leaf sheath with prominent ridges and white flecks; blade narrowly lanceolate, lower surface with appressed hairs, base cuneate, apex acuminate. Inflorescence conical, c. 12 cm long including short peduncle. Involucral bracts with densely white, stiff hairs, apex acute with short spine. Calyx hairy at base. Labellum ovate, 1.8 cm long, red, with white edges at base, apex rounded.

Thailand.— PENINSULAR: Yala [Betong, 10 July 1999, Maknoi T26 (PSU, QBG)].

Distribution.— Peninsular Malaysia, Kalimantan, Java.


Leaf sheath glabrous to densely hairy especially on upper part; blade narrowly lanceolate, both surfaces glabrous to covered with densely appressed hairs, base obliquely rounded, apex acute to acuminate. Inflorescence c. 15 cm long including short peduncle. Involucral bracts finely longitudinal ribbed, with irregular cross-bars, covered with white hairs. Calyx mostly glabrous except few hairs at apex. Labellum slightly longer than lateral corolla lobes, with white edges at base, apex rounded.


Distribution.— Sumatra, Peninsular Malaysia, Sarawak.

Figure 1. A. *Hornstedtia conica* Ridl.; B. *Hornstedtia leonurus* (J.König) Retz.; C. *Hornstedtia minor* (Blume) K. Schum.
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REFERENCES


