

Drimia indica (Asparagaceae, Scilloideae), a new record for Thailand

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ABSTRACT

Drimia indica is newly recorded for Thailand. A description and illustrations are provided.

KEYWORDS: new record, taxonomy, Thailand.

Accepted for publication: 7 May 2019. Published online: 31 May 2019

INTRODUCTION

Specimens of Asparagaceae were collected by the first author from experimental plots, established in sandy loam-loamy sand soil at 100–200 m altitude in Huai Kha Khaeng Wildlife Sanctuary, Uthai Thani Province, to study the production of the barometer earthstar (*Astraeus* sp., Diplocystaceae) from different fire frequencies in dry dipterocarp forest. In the rainy season only the leaves and bulb were found. Initially, the plant was identified as *Crinum asiaticum* L. (Amaryllidaceae), but in cultivation, it showed precocious flowering (i.e. flowering before the leaves appeared). This was different from the flowering of *C. asiaticum* but similar to members of Asparagaceae. Using the Flora of Thailand account of Asparagaceae (Tanming & Chantaranothai, 2012), the plant did not match any species currently known in Thailand. After examining literature, herbarium specimens from surrounding countries and discussions with colleagues in Thailand, it was concluded that the plant was *Drimia indica* (Roxb.) Jessop. This was confirmed as a new subfamily, generic and species record for Thailand.

Drimia Jacq. ex Willd. was informally proposed by Jacquin (1797) and formally described by Willdenow (1799). It was originally placed in Hyacinthaceae, but in APG III (Angiosperm Phylogeny Group, 2009) Hyacinthaceae was placed into the synonymy of a broadly-circumscribed Asparagaceae, with *Drimia* being placed into subfamily Scilloideae.

Govaerts *et al.* (2019) listed 73 accepted species in Asparagaceae, which are distributed throughout the tropics and into temperate regions. Tanming & Chantaranothai (2012) used a narrow circumscription for the family in their Flora of Thailand account, recognising only one genus, *Asparagus* L., with two native species, *A. filicinus* Buch.-Ham. ex D. Don and *A. racemosus* Willd. Therefore, the present work represents a new subfamily, genus and species record for Thailand.

TAXONOMIC TREATMENT

Drimia indica (Roxb.) Jessop, J. S. Afr. Bot. 43: 272. 1977; Stedje, Nordic J. Bot. 7: 664. 1987 & in Polhill, R.M., Fl. Trop. E. Afr.: 18. 1996; Thulin, Fl. Somalia 4: 52. 1995; Ali, in Ali & Qaiser, Fl. Pak. 214: 20. 2005.—*Scilla indica* Roxb., Fl. Ind. 2: 147. 1832.—*Urginea indica* (Roxb.) Kunth, Enum. Pl. 4: 333. 1843; Cooke, Fl. Pres. Bomb. 3: 277. 1958; Gandhi, Fl. Hassan Distr. Karnat. India: 800. 1976; Almeida, Fl. Savantwadi: 39. 1990; Sasidh., Fl. Chinnar WLS: 315. 1999; Sunil & Sivadasan, Fl. Alappuzha Dist. 695. 2009.—*Urginea coromandeliana* Hook.f., Fl. Brit. India 6: 347. 1892, **nom. illeg.**; Gamble, Fl. Pres. Madras: 1527. 1928.—*U. govindappae* Boraiah & Fatima, Bull. Bot. Surv. India 12: 128. 1970.—*Thuranthos indicus* (Roxb.) Speta, Phytom (Horn) 38: 84. 1998.—*Indurgia indica* (Roxb.) Speta, Stapfia 75: 170. 2001. Type: India, Coromandel, *Roxburgh s.n.* (holotype **K** photo seen). Figs. 1–2.

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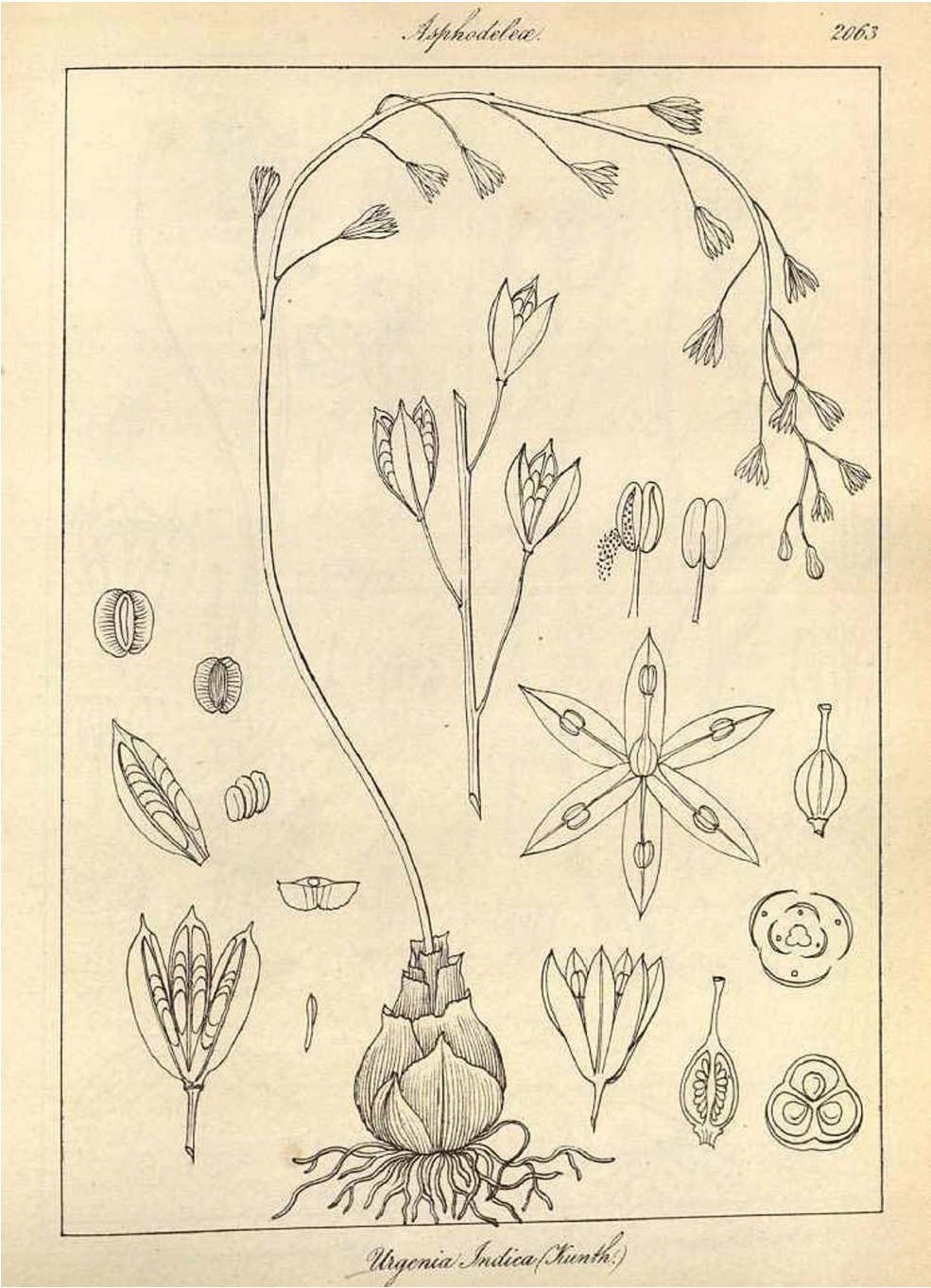


Figure 1 *Drimia indica* (Roxb.) Jessop [Synonym: *Urginea indica* (Roxb.) Kunth] (Drawn by Wight (1846)).

Herb, perennial, bulbous, up to 30 cm tall. *Bulbs* tunicate, globose, 5–7 cm diameter. *Leaves* synanthous or hysteranthous, radical with sheathing base, linear, lanceolate or lorate, 20–30 × 3–4 cm. *Scape* purplish brown, erect to 60 cm long. *Inflorescences* very lax raceme with 10–20 flowers. *Flowers* campanulate, green or dull green, 15–30 cm

long; pedicels erect or ascending, 2.5–4 cm long; bracts often early caducous, deltoid up to 2 mm long, spurs up to 2 mm long. *Perianth* 3+3, segments free or united up to 1.5 mm long, campanulate with 6 linear-oblong pale brownish or greenish, white at margin, 6–11 mm long. *Stamens* 6, 6–7 mm long; filaments linear, flattened at base, free or united with



Figure 2 *Drimia indica* (Roxb.) Jessop: A. bulb with leaves; B. bulb with young inflorescences on a leafless stem; C. inflorescences and flowers are borne in raceme type; D. young fruits and mature seeds (Photos by S. Wisittipanich).

the perianth segments, free part 5–6 mm long; anthers versatile, linear, yellow. *Ovary* ovoid, 3–4 mm long; style obconic to narrowly elongate, 4–5 mm long; stigma 3-lobed. *Fruits* capsular ellipsoid, tapering at both ends, brownish yellow, 1–1.5 cm long, 6–9-seeded. *Seeds* elliptic, flattened, winged, black, 7–10 mm long.

Thailand.— SOUTH-WESTERN: Uthai Thani [Huai Kha Khaeng Wildlife Sanctuary, 16 May 2018, *Wisittipanich 1* (BKF) & *Wisittipanich 2* (BKF)].

Distribution.— Tropical and southern Africa, Indian subcontinent and eastwards to Vietnam.

Ecology.— Sandy and stony soil in dry dipterocarp forest; 100–200 m alt.

Phenology.— Flowering March; fruiting March–April.

Vernacular.— Kra thiam yot chai (กระเทียมยอดช่าย).

Uses.— The bulb is used in traditional medicine in Africa.

Conservation status.— In Thailand, Data Deficient (DD) as it is known from only two collections in one locality. Least Concern (LC) globally.

Note.— From our examination of our material, several descriptions (Jessop, 1977; Stedje, 1987; Ali, 2005) and the original illustration (Wight, 1846), it is apparent that morphological variation in *D. indica* is extensive. Variation is observed mainly in size of the bulbs, the leaf size, the number and size of flowers in the inflorescence, the size of the fruits and the number and size of the seeds.

ACKNOWLEDGEMENTS

We gratefully thank Dr Pongsak Phonsena, director of the Forest Herbarium (BKF), Dr Somran Suddee and Mr Manop Poopath, BKF staff for their suggestions and assistance in identifying specimens. We also would like to thank the staff of the Forest Herbarium (BKF), Department of National Parks, Wildlife and Plant Conservation and Bangkok Herbarium (BK), Department of Agriculture for permission to study literature.

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