

# *Hoya chinghungensis*, a new record for India and *Hoya acuminata* a new record for the state of Arunachal Pradesh, India

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**Abstract:** *Hoya chinghungensis* (Tsiang & P.T.Li) M.G.Gilbert, P.T. Li & W.D.Stevens is reported as an addition to the flora of India from Arunachal Pradesh, additionally *Hoya acuminata* (Wight) Benth. ex Hook.f. as an addition to the flora of Arunachal Pradesh. A detailed description and photo plates are provided as an aid to identification.

Keywords: *Asclepiadoideae*, Distribution, Northeast India, *Marsdenieae*

## Introduction

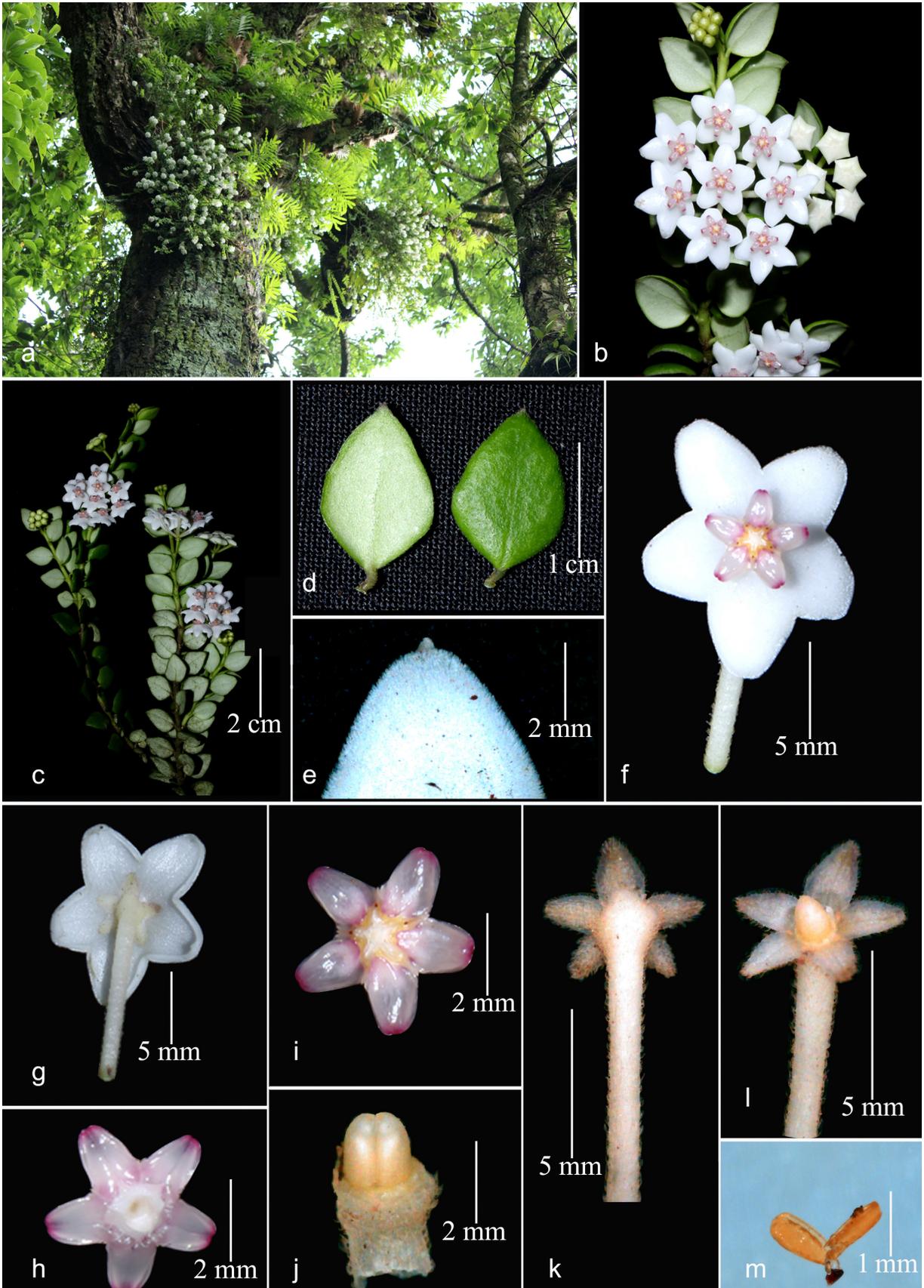
*Hoya* R.Br., is a genus included within the tribe *Marsdenieae*, subfamily *Asclepiadoideae* of Apocynaceae (Endress *et al.*, 2019; Liede-Schumann *et al.*, 2022). They are generally climbing or pendulous epiphytic plants, of which a few with a semi-epiphytic climbing habit, but in recent years numerous unusual species with shrubby habit were also described (Rahayu & Rodda, 2020). It includes over 500 species mainly distributed in the tropical and subtropical regions of Asia, Oceania and the Islands (Wanntorp *et al.*, 2014), with c. 33 species recorded in India (Jayanthi *et al.*, 2020; Jayanthi, 2022). Several infrageneric classifications of *Hoya* have been proposed by different authors (Hooker, 1885; Burton, 1995), but very few were supported by phylogenetic analyses (Wanntorp *et al.*, 2006, 2014).

During a floristic exploration in East Kameng, Pakke Kessang and Longding districts of Arunachal

Pradesh, India, in the months of May and June 2024, the authors came across two *Hoya* species, the first growing on huge trees as an epiphyte in the evergreen forests and the second on hill slope on the soil surface. From critical examination of herbarium specimens (ARUN, ASSAM, CAL) and scrutiny of literatures (Hooker, 1885; Ying & Li, 1974; Li *et al.*, 1995; Burton, 1995; Jagtap & Singh, 1999; Gui *et al.*, 2017; Khurajam *et al.*, 2018; Rodda *et al.*, 2019; Huang, 2020, 2021; Jayanthi, 2022; Nguyen *et al.*, 2023; Kuotsu & Limasenla, 2024), we identified one of species as *Hoya chinghungensis* (Tsiang & P.T.Li) M.G. Gilbert, P.T.Li & W.D. Stevens, so far known from South to Central China, Laos, Myanmar, Vietnam and is not previously reported from India (POWO, 2025). Thus, the present collection will be a new addition to the Indian flora. *Hoya acuminata* (Wight) Benth. ex Hook. f. collected from Pakke Kessang district is a new addition to the flora of Arunachal Pradesh, from India, which was previously known only from Assam, Meghalaya and Nagaland (Kuotsu & Limasenla, 2024; Jayanthi, 2022).

## Taxonomic Treatment

*Hoya chinghungensis* (Tsiang & P.T.Li) M.G.Gilbert, P.T.Li & W.D.Stevens, Novon 5(1): 9. 1995. *Type*: CHINA. Yunnan: Che-li Hsien, Mengsoong, Dah-Meng-Lung, c. 1900 m, September 1936, C. W. Wang 78311 (holoIBSC!; iso A). **Fig. 1** Epiphytes with stems up to 3 m long, branched mainly near base, terminal branches few, hanging, young branches and petioles pubescent. Leaves



**Fig. 1.** *Hoya chinghungensis* (Tsiang & P.T.Li) M.G.Gilbert & P.T.Li & W.D.Stevens: **a.** Habit; **b.** Inflorescence; **c.** Branch and inflorescence; **d.** Leaves; **e.** Tip of the corolla; **f.** Flower—front view; **g.** Flower—back view; **h.** Corona—front view; **i.** Corona—back view; **j.** Ovary; **k-l.** Pedicel with calyx lobes; **m.** Pollinarium.

succulent, longer than internodes; petioles 1–1.5 mm; leaf blades broadly ovate, 1–1.5 × 0.6–1 cm, young leaves pubescent, base rounded to truncate, apex acute to obtuse; lateral veins indistinct. Inflorescence-terminal or extra-axillary, 6–10-flowered; peduncle shorter than pedicels, or indistinct. Flowers small, 1–1.5 cm across, white, almost flat; pedicels 0.6–1.2 cm, pubescent. Sepals ovate, 1.3–1.8 × c. 1.4 mm, brownish yellow, apex obtuse, densely pubescent. Corolla rotate, 1–1.5 cm across, white; lobes triangular-ovate, c. 3.5 × 4.5 mm, densely pubescent inside, glabrous outside, apex subacute. Corona lobes light rose to white, dark pink at apex, nearly triangular, apex sub-acute, center flat, inner tooth recumbent on anther. Pollinarium oblong-ob lanceolate, 0.6–1.2 × c. 0.2 mm long; pollinia golden yellow. Pistils yellow, c. 1.5 mm long; carpels 2, separate, glabrous; stigma head flat. Follicles not seen.

*Flowering and fruiting:* Flowering from May to June; fruiting not observed.

*Habitat & ecology:* Commonly under canopies of tall trees at elevation 1200 m above sea level in the evergreen forests.

*Distribution:* China, India (Arunachal Pradesh), Laos, Myanmar and Vietnam.

*Specimens examined:* INDIA, Arunachal Pradesh, Longding District, near Wakka village, 26°49'07.0"N 95°23'39.4"E, 1140 m, 29.05.2024, A. Pertin and A. Ray 49153 (ARUN).

*Note:* *Hoya chinghungensis* is very common in cultivation, easily propagated by cuttings and therefore the pressure on wild populations non-existent.

*Hoya acuminata* (Wight) Benth. ex Hook.f., Fl. Brit. India 4(10): 53. 1883. *Pterostelma acuminatum* Wight, Contr. Bot. India 39. 1834. *Lectotype* (designated by Rodda *et al.*, 2019): BANGLADESH, Silhet, Wall. Asclep. 129, Wallich 8170 (K [K000438717] digital image!), **Fig. 2** Terrestrial, stout stemmed plant with subscandent

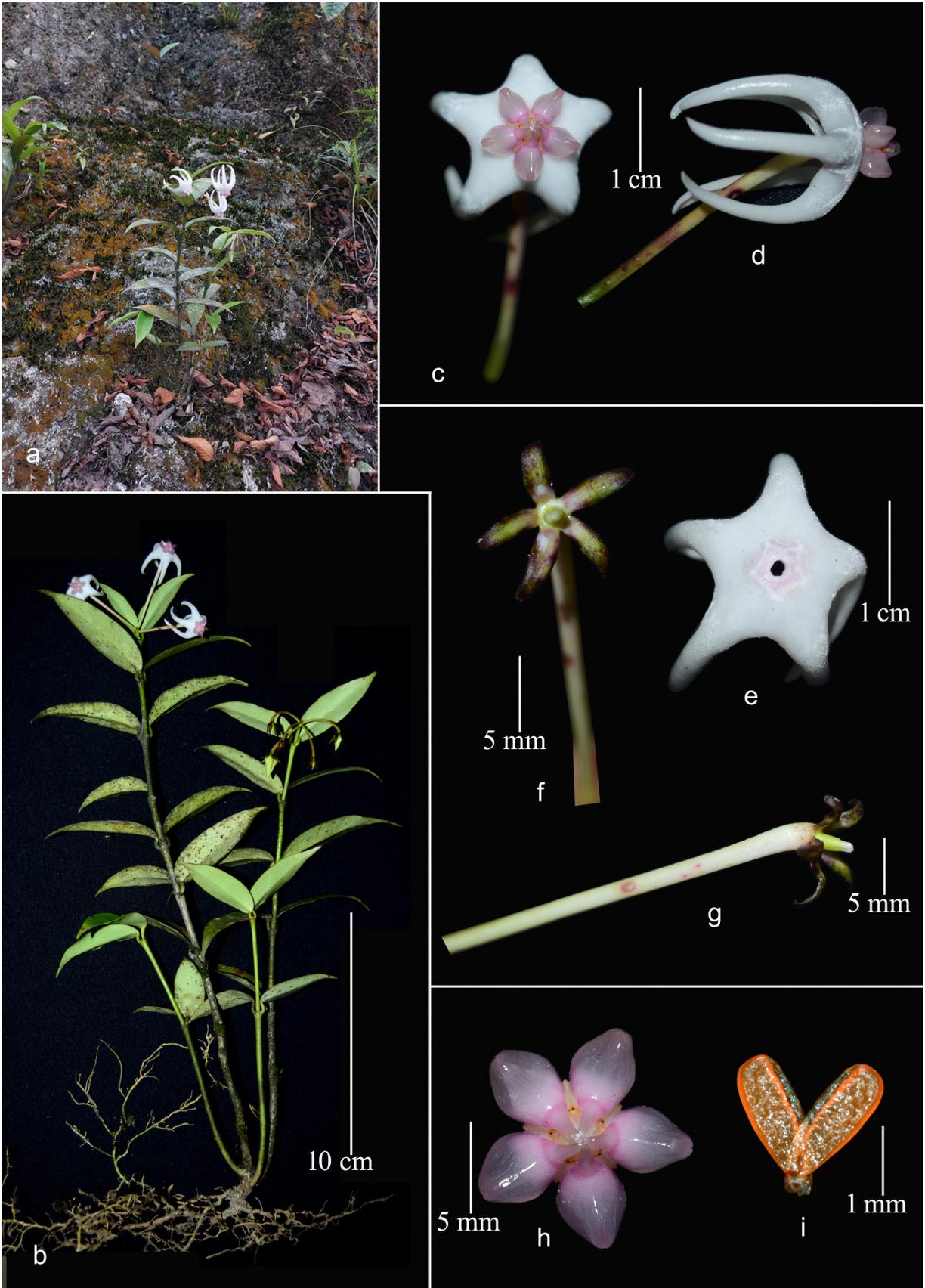
branches, entirely glabrous; stems terete, glossy green with white latex. Leaves grassy green, shortly petiolate; petiole c. 2.6 mm, thick; leaf blades narrowly elliptic to elliptic lanceolate, 4–8 × 1.5–3 cm, base cuneate, apex acuminate, fleshy subcoriaceous, glabrous, margins entire to slightly undulate. Inflorescence a umbelliform raceme, terminal or extra-axillary, (3)4–5(6)-flowered; peduncle short, less than 1 cm long. Flowers large, white; pedicels 3–5 cm long, slender and glabrous. Calyx persistent, deeply 5-lobed; lobes linear to oblong, 5–8 × ca. 1 mm, glabrous, dull pinkish to pale greenish. Corolla white; lobes 5, narrowly triangular, 1.6–2.8 cm long, acute, puberulous, reflexed back. Staminal column c. 5 mm high. Corona 5.5–6 mm diam., glossy, hyaline, white or very light pink, outer angle of corona lobes flattened from sides, obscurely rectangular; inner angle of corona lobes erect, subulate, acute, inner process twice exceeding anther appendages. Anther appendages yellow, erect, narrowly oblong, truncate; pollinarium c. 3 mm long; pollinia oblong, pale yellow; caudicles short, hyaline, pale yellow. Pistil dull green, c. 2.5 mm long; carpels 2, separate, wine-bottle shaped glabrous; stigma head white, broadly conoid. Follicles not seen.

*Flowering and fruiting:* Flowering from May to June; fruiting not observed.

*Habitat & ecology:* It usually occur as an epiphyte in evergreen broad-leaved forests at elevations about 1500 m above sea level but the present collection was done from open hill slope near roadside. Since the area is prone to landslide, the plant may be introduced in soil due to landslide and got naturalized.

*Distribution:* Bangladesh, Bhutan, China, India (Arunachal Pradesh, Assam, Meghalaya, Nagaland), Myanmar and Vietnam.

*Specimens examined:* INDIA, Arunachal Pradesh, Pakke Kessang District, near Riloh village, N 27°11'28.20" E 93°08'08.55", 1410 m, 09.06.2024, K.Chowlu, A.Shenoy & A.Ray 44152 (ARUN!).



**Fig. 2.** *Hoya acuminata* (Wight) Benth. ex Hook. f.; **a** & **b**. Habit; **c**. Flower–front view; **d**. Flower–side view; **e**. Corolla; **f** & **g**. Pedicel with calyx lobes; **h**. Corona; **i**. Pollinarium.

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