



Hyoscyamus albus (Solanaceae): A new distributional record for India

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Abstract

Hyoscyamus albus L. is reported here for the first time for India from Hyderabad, Telangana. A detailed description, notes and photographs are provided for easy identification.

Keywords: Nightshade, Telangana, Weed

Introduction

Hyoscyamus L. is a small genus in the nightshade family (Solanaceae) consist of 23 species distributed in Western Europe, Northern Africa, South-western and Central Asia and China (Mabberley, 2008). In India the genus is represented by three species viz., *H. niger*, *H. pusillus* and *H. muticus* (Clarke, 1885). During a short visit to the Herbal garden of Y.S.R. Horticultural University at Rajendranagar, the authors have collected a *Hyoscyamus* species in flowering and fruiting which was later identified as *H. albus*. Further studies revealed that this species has hitherto not been reported from India and is reported here as a new addition to the flora of India. A detailed descriptions, notes and colour photographs are provided to facilitate identification.

Hyoscyamus albus L., Sp. Pl. 180. 1753; Dunal in DC., Prodr. 13(1): 548. 1852; Boiss., Fl. Or. 4: 296. 1879; Lam., Encycl. Meth. 1: t. 117, f. 2. 1791; Reichb., Icon. Fl. Germ. Helv. 20: t. 162, f. 1. 1860; Shishkin & Bobrov, Fl. USSR 22: 109. 1994. **Fig. 1**

Herbs, annuals or perennials, up to 90 cm high; stems erect, branched, woody at base, densely villous; trichomes c. 3 mm long, patent, soft. Leaves simple, alternate, variable in size and shape, pubescent with long soft patent hairs; cauline (basal) leaves oval or sub orbicular, 6–9 × 4–8 cm, truncate or broadly cuneate at base, obtuse or acute at apex, dentate along margins, lobes or teeth 8-9, triangular, wide, asymmetrical or unequal, obtuse or acute, petiole as long as length of lamina (4–8 cm), light green, pinnate veins prominent from beneath; floral leaves spatulate-oblongate,

3.5–4 × 1.5–2 cm, cuneate at base, obtuse or acute at apex, entire or dentate along margins; petioles up to 2 cm long. Flowers 1.8–2 × 0.8–1 cm, bisexual, zygomorphic, sub-sessile; lower flowers pedicellate; pedicel 4–6 mm long. Calyx tubular-funnel shaped, 1.2–2.5 cm long, in fruit somewhat wider and enlarged, 5-lobed; lobes triangular, sub equal, acute at apex, 3.5–4 × 3–5 mm, covered with densely soft villous outside, glabrous inside with 10 longitudinal prominent pale green veins. Corolla gamopetalous, campanulate-funnel form, 2.2–2.9 × c. 2 cm long, 5-lobed; lobes unequal, obovate, pale yellow with pale green and purple throat. Stamens 5, purple or white, epipetalous, unequal, longer ones as long as corolla (up to 2 cm); filaments hairy on lower part; anthers oblong, 4–6 × 2–3 mm, exerted. Gynoecium up to 2 cm long; ovary 0.3–0.4 mm long, bilocular, ovules numerous; style c. 1.8 cm long, glabrous, stigma capitate. Capsule with convex lid, more than half length of calyx, oblong, c. 1.3 × 0.8–0.6 cm, lid c. 5 × 6 mm; seeds c. 1.5 × 1.2 mm, greyish brown, reniform, alveolate.

Flowering & Fruiting: September – January.

Distribution: India (Hyderabad), Southern Europe, West and East Mediterranean regions and Russia.

Specimen examined: INDIA: **Telangana**, Rajendra Nagar, YSR Horticultural University Herbal Garden, (17° 18' 33.44" N and 78° 28' 98" E), 555m, 14.11.2014, J. Swamy 002948 (BSID).

Note: *H. albus* is very close to *H. niger*, a species native to temperate western Himalaya and Europe, but differs from the latter by its long

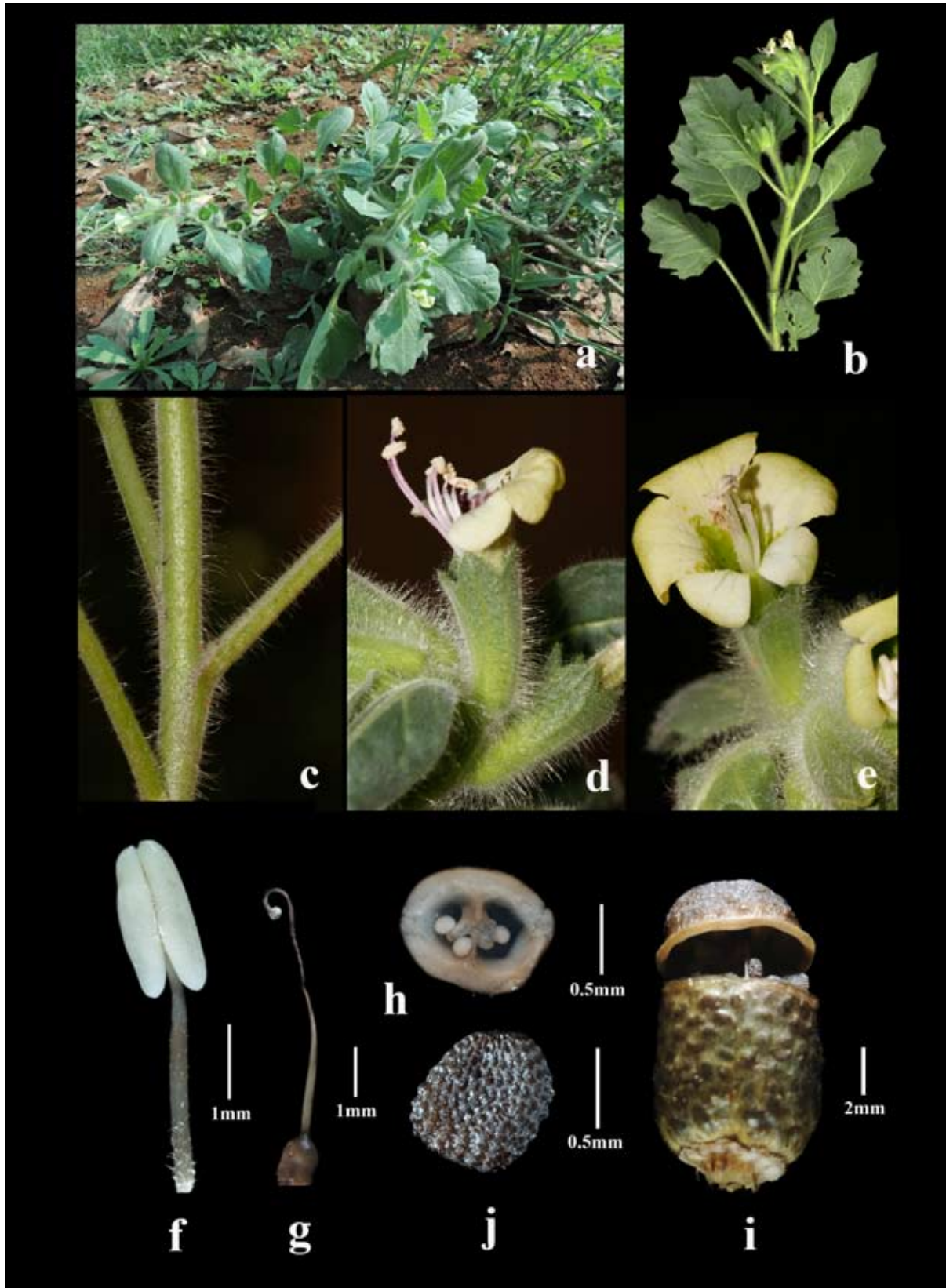


Fig. 1. *Hyoscyamus albus* L.: **a.** Habit; **b.** Flowering twig; **c.** Hairs on stem; **d-e.** Colour variation in flowers; **f.** Stamen; **g.** Gynoecium; **h.** Ovary T.S.; **i.** Fruit; **j.** Seed.

petiolate leaves, campanulate calyx without girdle or constriction below limb. The species might be entered in this region through the experimental seeds, as the medicinal plant garden of YSR Horticultural University has extensive collections of medicinal plants from throughout India.

Uses: It has been characterized as a species with great medicinal value in the Europe. The seeds are mixed with wine to treat fever, tetanus and gynecological ailments (Ratsch, 2005).

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