

## Notes on *Phaulopsis dorsiflora* (Retzius) Santapau (Acanthaceae): a lesser known species from Arunachal Pradesh and new record for India

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### Abstract

*Phaulopsis dorsiflora* (Retzius) Santapau (Acanthaceae), a little known species from Indian Eastern Himalayan region is now reported and described from Arunachal Pradesh. The species is poorly represented in literature and herbarium collections. Detailed morphological description and other relevant information are provided to facilitate easy identification of the species.

**Key words:** *Phaulopsis dorsiflora*, New record, Arunachal Pradesh, India

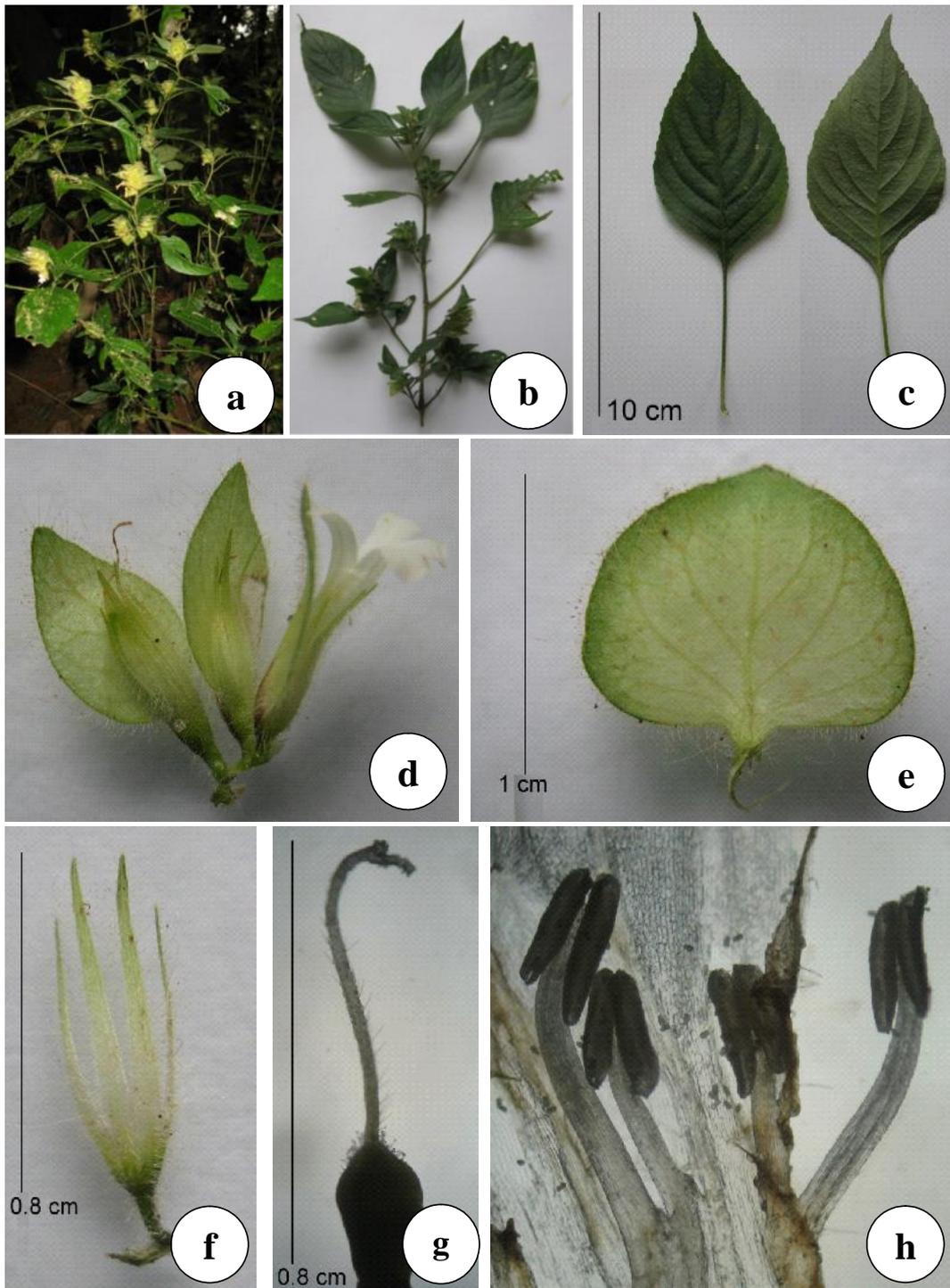
### INTRODUCTION

*Phaulopsis* Willdenow (Acanthaceae) is an herbaceous angiosperm genus representing with about 22 species (Manktelow 1996). The genus is widely distributed throughout Africa. A few species are also distributed in Asia. The species are perennial or annual. Some species have medicinal, cultural, or nutritional uses (Manktelow 1996). In India the genus is represented by only one species i.e. *Phaulopsis imbricata* (Forsskål) Sweet (Clarke 1885). In the state of Arunachal Pradesh, the genus is also represented by this species (Giri *et al.* 2008). During the preparation of checklist of plant species in the Botanical Garden of Rajiv Gandhi University, the authors came across a set of interesting species. After critical examination based on consultation of protologue description and image of type specimen, the identity of the collected specimen has been confirmed as *Phaulopsis dorsiflora* (Retzius) Santapau, which is a lesser known species. As the species was not described in any Indian flora or other literature, present study attempts to describe the species with detailed characterization along with colour photographs (Fig. 1). The complete description with other relevant notes is provided to facilitate the easy recognition of the species in the field. The voucher specimens of the species were deposited at the herbarium of the Botany Department of Rajiv Gandhi University, Arunachal Pradesh, India.

*Phaulopsis dorsiflora* (Retzius) Santapau, Kew Bulletin 1948: 276. 1948; Manktelow, *Phaulopsis* (Acanthaceae) – a monograph 159 – 160. 1996; Hu & Thomas in Wu and Raven, *Flora of China* 14: 430. 2011.

*Type:* Konig *s.n.* (LD herb. Retzius, holotype)

*Ruellia dorsiflora* Retzius, *Observ. Bot.* 6: 31. 1791. *Phaulopsis oppositifolia* (J.C. Wendland) Lindau, *Nat. Pflanzenfam.* 1: 305. 1897.



**Figure 1.** *Phaulopsis dorsiflora* (Retzius) Santapau: **a.** Habit; **b.** A twig showing inflorescence; **c.** Leaves (adaxial and abaxial surface); **d.** Flower; **e.** Bract; **f.** Calyx; **g.** Gynoecium; **h.** Stamen

Herbs, 10 – 55 cm long, perennial or annual plants, usually erect, occasionally decumbent and rooting from lower nodes. Stem quadrangular, pubescent. Leaves opposite, anisophyllous, petioles up to 6 cm long; lamina ovate to elliptic, 3 – 12 cm × 1 – 5 cm, crenate, acute to acuminate, cuneate at base, abaxially pubescent along veins, adaxially hirsute, lateral veins 4 – 6 pairs, opposite or alternate. Spikes axillary, subtended by a leaf-like bract, 0.8-1 cm, secund, orbicular or reniform, imbricate. Flowers sessile. Calyx 4-lobed almost to base, 0.4 – 0.6 cm long, lobes unequal, densely glandular hairy; corolla white, small; tube cylindric, 0.8 – 1 cm long, slender, densely glandular hairy, limb 2-lipped, lower lip 3-lobed, upper lip 2-lobed; stamens 4, didynamous, included in corolla tube, filaments coherent at base, anthers 2-lobed; ovary gland-tipped pubescent, both locules 2 ovuled, style hairy, 0.4 – 0.6 cm, stigma 2-unequal lobed. Capsules ellipsoid, 5 – 6 mm long, 4 seeded; seeds round and flat, 1.2 – 1.5 mm long.

*Flowering:* November – May; *Fruiting:* May – July

*Ecology:* Growing in humid areas within the elevation 300 – 800 m.

*Distribution:* India (Arunachal Pradesh), Bangladesh, Bhutan China, Myanmar, Thailand, Vietnam and South Africa.

*Exsiccatae:* INDIA, Arunachal Pradesh, Papum Pare District, Rajiv Gandhi University, Botanical Garden, 300 – 400 m, 10.12.2015, A. Bawri 401 (RGU).

**Note:** It is a lesser known species. Although Manktelow (1996) reported the species in his monograph from India, but it is not yet listed in any Indian literature. In previous literature it is characterized as prostrate herb, but in the present study it is confirmed that the species exhibited only erect or decumbent habit.

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