Ipomoea laxiflora H.J. Chowdhy & Debeta (Convolvulaceae): new records for the Western Ghats and semiarid regions

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Ipomoea L. is one of the largest genera of the family Convolvulaceae Juss., growing naturally in tropical, subtropical, and temperate regions (Kattee et al. 2019). Members of the family are characterised by their twining and trailing herbaceous or perennial habit, whereas shrubs or trees are rare. About 650 species are reported worldwide in Convolvulaceae (Mabberley 2017); of which 64 species are reported from different biogeographical regions of India (Shimpale et al. 2014; Kattee et al. 2019). Many of them have been used as ornamental plants with a popular English name ‘morning glory’, in foods, medicines, and in religious rituals (Meira et al. 2012). During field trips to different regions of Gujarat state for collection of Ipomoea and other species of the Convolvulaceae for histological studies, the authors collected a few specimens of Ipomoea (looking similar to I. triloba) with glabrous fruits. After studying the literature (Chowdhy & Debeta 2009; Singh et al. 2011; Kattee et al. 2019) and comparing with the herbarium specimens deposited in The New College Herbarium & Shivaji University Kolhapur (SUK) Herbarium, the collected specimens were identified as I. laxiflora H.J.Chowdhy & Debeta.

I. laxiflora is known from northern India (Uttarakhand) and recently reported from Deccan peninsula (eastern region of Kolhapur district) by Kattee et al. (2019). It has not been reported from the Western Ghats (including the Kolhapur district), however, now it is collected from the Dangs (Western Ghats region of Gujarat) and semiarid regions of Gujarat. Herewith, the species is reported as a new distribution record for the Western Ghats and semiarid region of India. The presence of this species in these regions will help researchers working in the area to understand the distribution pattern of this endemic species. This discovery also hints towards its possible wider distribution range. A detailed description, distribution conservation status, and photographs (Image 1) of I. laxiflora are provided herewith.
Image 1. *Ipomoea laxiflora*: A–C—Habit | D—Young floral buds | E—Flowers (longitudinal section of flower on the left and complete flower on the right) | F—Gynoecium, | G—Fruits (note the absence of hairs on gynoecium and capsule). Scale: D & E = 1cm | F = 2cm | G = 5mm.
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2–4 mm long, linear, caducous; calyx 5, fused, green with purple tinged at tip; lobes 0.7–0.9 × 0.2–0.3 cm, ovate-lanceolata, sub-equal, feebly veined, glabrous; corolla c. 1.5 × 1.2 cm, funnel-shaped; limb 5-lobed; lobes apiculate; stamens 5; filaments 0.7–0.8 cm long, unequal, included, hairy at base; ovary c. 1 × 1.5 mm, glabrous; style c. 0.6–1 cm long; stigma unlobed or bilobed; capsules ovoid, 5 × 6 mm, 4-valved, with purple tinge at young, glabrous; seeds 4 per capsule, ovoid to deltoid, brownish-black, c. 4 × 4 mm, glabrous.

Flowering period: September–October
Distribution: India

Note: In India this was reported from Uttarakhand and Maharashtra. However, now it is collected from the Western Ghats (The Dangs) and semi-arid regions (Vadodara, Panchmahal, and Rajkot) of Gujarat state (Figure 1).

Conservation status: *Ipomoea laxiflora* is an endemic species collected from different regions of India (Singh et al. 2015). In the present work it has been collected from the Western Ghats and semi-arid regions of India. About 30–80 individuals were found per locality and the area of occupancy (AOO) is 150–250 km² by using the Geo-CAT software. However, other forest regions are yet to be explored completely and the species may be distributed under similar ecological conditions. Hence, more floristic surveys are needed to determine and document the full range of distribution of *Ipomoea*.
laxiflora.

Ecology: The species grows from high rainfall regions (>1,300 mm) to low rainfall (<400 mm) regions. It grows on sandy gravelly or sandy alluvial soil on hilly terrain, foot hills and hill slopes. It also occurs in human habitats particularly on farm or home fencing and compound walls of industries, along road sides and in open areas. The phyto-associates observed in various areas are Capparis decidua (Forssk.) Edgew., Euphorbia sp., Ficus hispida L.f., Pongamia pinnata (L.) Pierre, Prosopis juliflora (Sw.) DC., P. cineraria (L.) Druce, and Ziziphus sp.


References


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