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RESEARCH ARTICLE

Ipomoea laxiflora H. J. Chowdhery & Debta (Convolvulaceae): A New Distribution Record for North Maharashtra

Kailas K. Kapadane[1], Ravindra A. Shelke[2] and Kishore S. Rajput[3] and Vinay M. Raole[3]

[1]Dadasaheb Raval S.V.S. Science College, Dondaicha 425408, (MS)
[2]Kisan Arts, Commerce and Science College, Parola 425 111
[3]Department of Botany, Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara–390002
**Corresponding Author*: vinaysar@rediffmail.com

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ABSTRACT

Ipomoea laxiflora H. J. Chowdhery & Debta (Convolvulaceae) is reported as an addition to the flora of Dhule, Jalgaon and Nandurbar Districts and as a new distributional record for North Maharashtra. Morphologically, present species similar to *I. triloba* L., and is separated by absence of hairs on ovary and capsules. So far, the present species is reported from northern part of India, Gadchiroli (Vidarbha) and Ichalkaranji (Kolhapur District). A brief description, distribution, conservation status is given to facilitate easy identification of *I. laxiflora* in the field.

Keywords: Convolvulaceae, New record, North Maharashtra, Khandesh.

INTRODUCTION

Ipomoeas are popularly known as morning glory and many of them are under cultivation as an ornamental plant for their showy and beautiful flowers. Many of them are medicinally important while others are used as food crops (Meira et al., 2012). It is one of the largest genera of the Convolvulaceae and comprises nearly 800 species worldwide (Wood et al., 2020). From India, Kattee (2019) revised the genus for India and reported 57 taxa (i.e., 49 species, 2 subspecies, 4 varieties and 2 forma). As a part of ongoing studies on the stem anatomy of Convolvulaceae, field trip was arranged to Khandesh region of North Maharashtra. Authors collected a specimen that are morphologically similar to *I. triloba* from several locations (few of them are Akkalkuva, Akulkheda, Chopda, Dondaicha, Pal, Shindkheda, Toranmal, Yaval etc.). *Ipomoea laxiflora* is closely allied and morphologically similar to *I. triloba* and that could be the possible reason that earlier researcher working on the flora of Dhule, Jalgaon and Nandurbar districts (Singh & Kartikeyan, 2001; Undirwade, 2015) might have neglected this species to include.

After critical study and review of literature (Chowdhery & Debta 2009; Singh et al., 2011; Katee 2019; Kattee et al., 2019) and consultation of the herbarium specimens deposited in the herbaria of "The New College, Kolhapur" & "SUK", present specimens were identified as *I. laxiflora* H.J. Chowdhery & Debta. Kattee et al., (2019) recently reported it from the Western Ghats (including the Kolhapur district) and the present study reports it from the Khandesh region (i.e., North Maharashtra). Therefore, the main aim of the present study is to document and additional record to Khandesh region of Maharashtra and new addition to the flora of Dhule, Jalgaon and Nandurbar districts. Occurrence of this species in this region will help to researchers for understanding the distribution pattern of this endemic species. A detailed description, distribution, conservation status and photographs (Fig 1.) of *I. laxiflora* are given herewith. Recently, Wood et al. (2020), merged this species with *Ipomoea triloba* and admitted that their studies included this species as a synonym of *I. triloba* (even though no specimen is observed). Further, Wood et al. (2020) mentioned that glabrous ovary and capsule not likely to be a significant character at species level and suggested molecular studies. However, we observed individuals of both species either grow together or separately within the same climatic conditions as well as at various locations as reported by earlier workers, which indicates that glabrous ovary and capsule is not an ecological variation, rather it is a distinct species.

TAXONOMY

Ipomoea laxiflora H.J. Chowdhery & Debta, Indian J. Forest. 2009, 32(1): 120-121. Singh et al., Indian J. Forestry 34(3): 335-338. 2011. Type: INDIA (holotype BSD, isotype CAL, 0000018586), **(Fig. 1)**.

An annual climber; 5–7 m long, stems soft, purple-green, circular to quadrangular, sparsely hairy at nodes; leaves petiolate, 5–10 × 4–9 cm, simple, entire, cordate, with great variations in shape, shallow to deeply trilobed, acuminate; petioles 10–12 cm long, purple-green, glabrous; peduncles 5–8 cm long, purple-green, slightly verrucose, glabrous, swollen at apex; pedicels 2–3 mm long, glabrous, elongated in fruits; bracts 2.5–4 mm long, linear, caducous; flowers 3–7 in lax cymes, monoecious, clumped; calyx 5, fused, unequal, glabrous, green with purple tinged at tip; lobes 0.7–0.9 × 0.2–0.3 cm, ovate-lanceolata; corolla c. 1.5 × 1.2 cm, funnel-shaped; limb 5-lobed; lobes apiculate; stamens 5; filaments unequal, 0.7–0.8 cm long, 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 (sometimes 3) per capsule, ovoid to deltoid, brownish-black, c. 4 × 4 mm, glabrous.

Flowering period: September - December

Distribution: India, so far is reported from Uttarakhand and Deccan plateau. However, now it is collected from Norther western part of Maharashtra state. Common on roadside, fencing of agricultural farms and hedges.

Taxonomic Note: Morphologically *I. laxiflora* is similar to *I. triloba*, but its ovate, obtuse calyx, sepal shape, the range of corolla sizes, infundibuliform tube and indumentum that bridges the two species with black seeds may be used to identify and discriminate between both of them.

Variations: There is another form of *I. laxiflora*, which shows an entire green stem, green veins of leaves, flowers white with yellow throat; seeds white with dark brown ting on the dorsal surface.

Specimens examined: Maharashtra-Kolhapur district, Ichalkaranji, coll. Kattee & Shimpale; 1544,1545 (The New College Herbarium! & SUK!) 2016, Gadchiroli coll. Kattee & Shimpale

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Figure 1: *Ipomoea laxiflora*. A: Habit, inflorescence on upper right corner (not up to the scale); B: Complete flower; C: Dissected flower showing reproductive structures; D: Fruits (note the absence of hairs on capsules). Scalebars: B, C = 5 mm, D = 6 mm