



## *Ipomoea rubens* Choisy (Convolvulaceae)-An addition to the flora of Telangana state, India

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### Abstract

A very little-known rare plant species namely, *Ipomoea rubens* Choisy (Convolvulaceae) has been collected for the first time from Bhadradi Kothagudem district and reported here as an addition to Flora of Telangana state, India. The present paper deals with a detailed taxonomic description, phenology and ecology. Further, a colour photoplate has been provided for easy identification of the species in field.

**Keywords:** *Distribution, Ipomoea*, New record, Telangana state

### Introduction

*Ipomoea* L. is one of the largest genera and are known as morning glories due to their distinctive trumpet-shaped flowers that typically open in the morning and close in the afternoon. The genus *Ipomoea* L. is mainly distributed in tropical and warm temperate regions of the world and it is represented by 800 species (Wood *et al*, 2020) [17]. In India, the genus is known to have 90 species, excluding the cultivated and uncertain species (Wood *et al*, 2022) [16]. In Telangana, the genus *Ipomoea* L. was represented by 18 species (Pullaiah, 2015; Reddy & Reddy, 2016), since then 7 species viz, *Ipomoea aitonii* Lindl. (Ramesh *et al*, 2022) [11], *Ipomoea biflora* (L.) Pers. (Paramesh & Reddy, 2021) [5], *Ipomoea mombassana* Vatke (Paramesh & Reddy, 2020) [4], *Ipomoea parasitica* (Kunth) G.Don (Kiran *et al*, 2020) [1], *Ipomoea laxiflora* H.J.Chowdhery & Debta (Raju *et al*, 2019) [10], *Ipomoea triloba* L. (Raju *et al*, 2019) and *Ipomoea ochracea* (Lindl.) G.Don (*I. clarkei* Hook. f.: Rasingam *et al*, 2018) [12], *Ipomoea triloba* L. (Swamy & Venkatesham, 2018) [14] were added to Flora of Telangana state.

### Materials and methods

While working on the Flora of Bhadradi Kothagudem district, Telangana state, a few specimens of *Ipomoea* L. were collected by first author in flower and fruit during May 2022 from the banks of Godavari River (Raigudem beat, Manuguru division) of Bhadradi Kothagudem district, Telangana, India. After a critical study, the specimens were identified as *Ipomoea rubens* Choisy based on relevant literature Kanjilal *et al*, (1939) [3]; Clarke (1883) [2]; Prain (1894, 1908) [7, 8]; Swamy & Ramana (2018). The scrutiny of literature revealed that this species had not been listed in the Flora of Telangana (Pullaiah, 2015[9]; Reddy & Reddy, 2016) [13] or recorded by others. Hence, it forms a new distributional record to Telangana state. As of now there are 26 species of *Ipomoea* L. including present addition,

represented in Telangana state. The voucher specimens are deposited at the Botanical Survey of India, Deccan Region, Hyderabad (BSID), Telangana.

### Observations and results

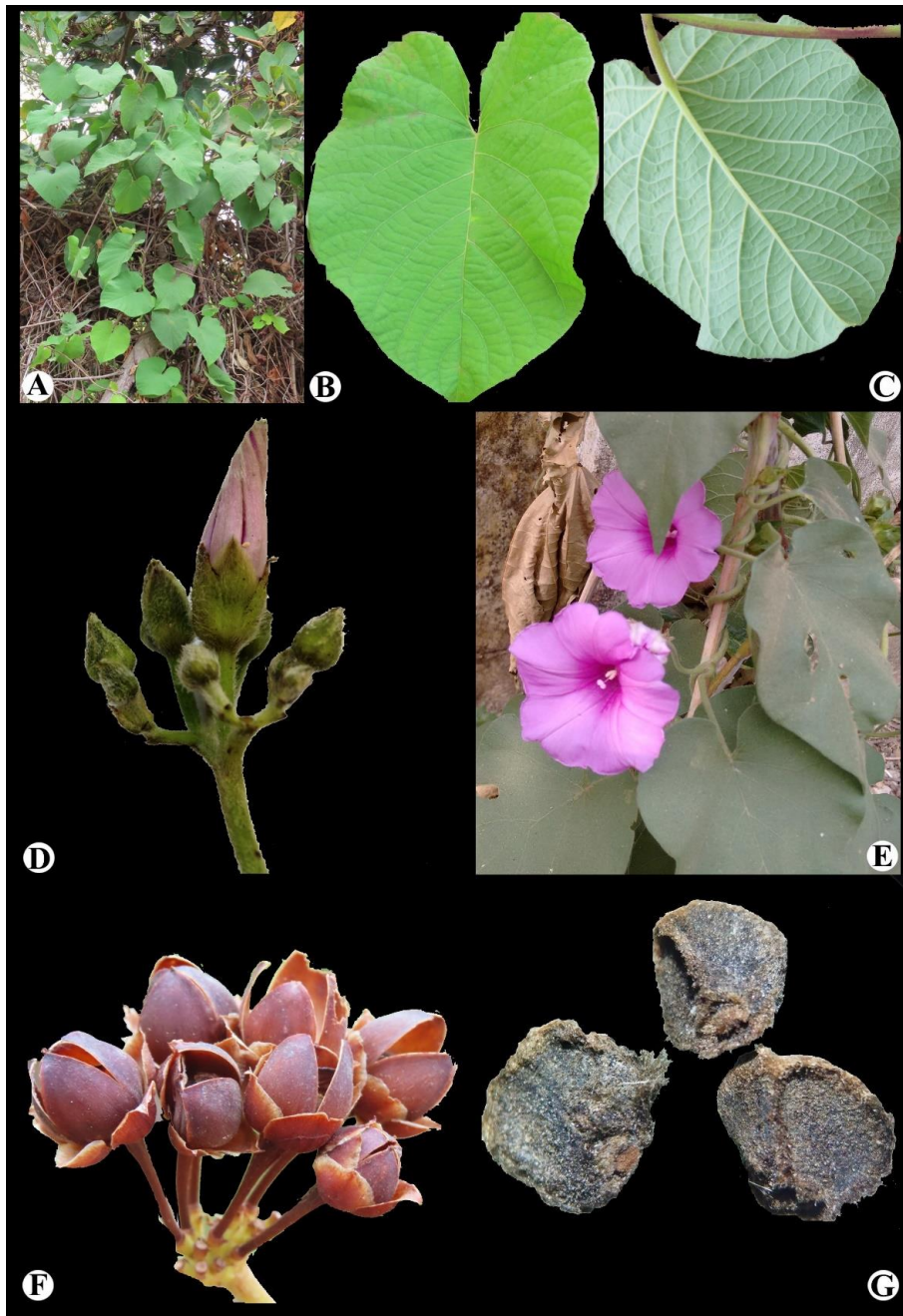
#### Taxonomic treatment

*Ipomoea rubens* Choisy, Mém. Soc. Phys. Genève 6(2):463. 1833. *Convolvulus rubens* Wall. Numer. List [Wallich]n. 1421. 1829. *Lettsomia rubens* C.B. Clarke in Hook.f. Fl.Brit. India 4: 195. 1883. *Pharbitis fragrans* Bojer, Hortus Maurit. 227.1837. *Ipomoea fragrans* Bojer ex Choisy in DC, Prodr. 9: 341, 393. 1845.

Type: India, Wallich 1421(lectotype G 00227258, designated by Wood *et al*, 2015)

#### Description

Perennial woody climber, up to 12 m long. Stem twining, hollow, hairy. Leaves broadly ovate, 5.5 - 14 × 4 - 11 cm, deeply cordate with rounded lobes at base, margin entire, acute, mucronulate at apex, pubescent at adaxial surface become glabrescent when mature; glabrous at abaxial surface; lateral nerves prominent on abaxial side, 6-7 pairs; petioles 3 - 4 cm long hairy. Inflorescence axillary 6-7-flowered cyme; peduncles 2.5 - 11.5 cm long, hairy; pedicels 0.5 - 2 cm long, hairy. Calyx sub-equal, outer sepals elliptic-oblong, 0.7 - 0.9 × 0.3 - 0.4 cm, hairy outside and glabrous inside. Corolla infundibuliform, 3 - 5 cm long, pink with dark pink throat; tube 2 - 2.5 cm long, lobes 2 - 3 cm long, midpetaline bands pink, shallow apiculate. Stamens 5, sub-equal; filaments 0.7 - 1.4 cm long, included, hairy at the base. Ovary ovoid, 0.12 × 0.1 cm, glabrous; style slender, 1.5 cm long, included, glabrous; stigma 2-lobed, lobes unequal. Capsule globose, 1.5 - 1.8 cm in dia, with persistent style base, glabrous. Seeds 4; dark brown to black, pubescent, villous at margin. (Fig 1)



**Fig 1:** *Ipomoea rubens* Choisy – A. Habit; B&C. Abaxial & Adaxial surface of leaf; D. Flower buds; E. Flower close-up; F. Fruits; G. Seeds.

### Distribution

Native range of this species is Tropical & Subtropical to Old World (POWO, 2023)<sup>[6]</sup>. India: So far it is only known from Andhra Pradesh, Assam and West Bengal (Swamy & Ramana, 2018)<sup>[15]</sup> Telangana state (present report).

**Phenology:** May to January.

**Habitat and Ecology:** *Ipomoea rubens* Choisy was found growing on sandy soil on the banks of Godavari River, a single individual species was observed in both flowering and fruiting stages in association with *Cordia dichotoma* G.Forst, *Combretum albidum* G.Don, and *Streblus asper* Lour.

**Specimens examined:** INDIA, Telangana, Bhadradi Kothagudem district, Manuguru division, Raigudem beat (17.939101°N; 80.878524°E) 22.05.2022, G. Ravi 1005 (BSID).

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