



Cestrum auranticum Lindl. (Solanaceae): A new record for Odisha, India

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Abstract

Cestrum auranticum Lindl is right here recorded as new for the plant of Odisha. The description, nomenclature, phenology and other relevant details are provided for smooth identity and higher expertise of the taxa.

Keywords: solanaceae, *Cestrum auranticum*, new record, Odisha, India

Introduction

Solanaceae or nightshades of monophyletic group contains 98 genera and 2,700 species (Olmstead & Bohs 2007) [1], being one of the economically important family of angiosperms; its survey on all temperate and tropical continents. In India, the family is signified by 122 taxa which are further followed by 29 genera, 116 species, 2 subspecies and 3 varieties (Reema Kumari 2004) [2]. A traditional classification of the family typically was recognized by seven subfamilies, Cestroideae, Goetzeoideae, Nicotianoideae, Petunioideae, Schizanthoideae, Schwenckioideae and Solanoideae (D'Arcy 1979 [3], 1991 [4]; Hunziker 1979 [5], 2001 [6]; Olmstead & Palmer 1992) [7]. Subfamily Cestroideae was characterized by the presence of pericyclic fibres, an androecium with 4-5 stamens, frequently didynamous divided into eight genera that divided into three tribes. The three tribes include Browallia, Cestreae and Salphiglossideae, into which Cestreae includes the genus *Cestrum*, *Sessea* and *Vestia* (Jeffrey 1992) [8]. *Cestrum* is the most important genus under the tribe Cestere includes around 172 species distributed throughout neotropical ecozone and also tropical regions of the America, from the Southern United States (Khan *et al.* 2012) [9]. Normally it grows upto 4 m tall among which most of them are evergreen and a few are deciduous (Bhattacharjee *et al.* 2005) [10], which is used for ornamental (Morton and Collectanea 1976) [11] and highly potential for the medicinal values (Sivaraj *et al.* 2015) [12]. During the floristic survey of Sundargarh and Khodha districts, Odisha, the author came across some fascinating specimen of *Cestrum* from the scrub forest, which was identified as *C. auranticum* belonging to the family Solanaceae. Perusal of floristic literature including Saxena & Brahmam 1994 [13], revealed that the species has not been reported from Odisha. It is being reported here as a new record for Flora of Odisha. A brief description, nomenclature, photographs along with other relevant notes are provided here for easy identification of this species in the field and the voucher specimen is deposited in the herbarium of Regional Plant Resource Center (RPRC) Bhubaneswar, Odisha, India.

Taxonomic Treatment

Cestrum auranticum

Lindl. Edwards's Bot. Reg. 30: 71. 1844; *C. auriculatum* Ruiz and Pav. Fl. Peruv. 2: 28. 1799; *Habrothamnus auranticus* Regel Index Sem. (Zurich) 1850: 4. 1850; *Cestrum warszewiczii* Klotzsch Allg. Gartenzeitung 19: 362. 1851; *C. pedunculare* Pav. ex Dunal Prodr. 13: 618. 1852; *C. regelii* Planch. Fl. Serres Jard. Eur. 9: 229. 1854; *C. auranticum* f. *regelii* (Planch.) Voss Vilm. Blumengartn. ed. 3 1: 726. 1894; *C. aurantiacum* f. *warszewiczii* (Klotzsch) Voss Vilm. Blumengartn. ed. 3 1: 726 1894; *C. chaculanum* Loes. Verh. Bot. Vereins Prov. Brandenburg 65: 97. 1923; *C. paucinervium* Francey Candollea 6: 101. 1935; *C. aurantiacum* var. *warszewiczii* (Klotzsch) Francey Candollea 6: 103. 1935; *C. auranticum* var. *chaculanum* (Loes.) Francey. Candollea 6: 104. 1935; *C. auranticum* f. *flavum* Francey. Candollea 6: 105. 1935; *C. aurantiacum* var. *macrocalyx* Francey Candollea 6: 105 1935. (Fig. 1) Perennial shrubs, stem green, cylindrical up to 6.5 m high, stems laxly or densely branched, branches often lenticellate, sparsely pilose to glabrescent with scattered simple or branched eglandular hairs mixed with stalked glands. Leaves alternate, glabrescent, elliptic to lanceolate, 5 × 1 cm, margin entire, apex acute, base acuminate, pedicellate 0.5 cm long, sometimes coriaceous, pseudostipulate. Inflorescence erect, axillary racemose panicles. Calyx glabrescent externally apart from densely pilose inrolled marginal bands, glabrous to sparsely pilose externally, lobes narrowly triangular becoming subulate above, margins tightly inrolled with lobes extending downwards as five dark coloured veins throughout the calyx, campanulate, greenish yellow in color, pubescent, epipetalous condition. Corolla yellow to slight orange, slightly pubescent, 4-5 cm in length, hirsutous, unscented, salverform to urceolate, glabrescent externally, pilose internally; lobes broadly to narrowly triangular, often apiculate, spreading or reflexed and ovate after anthesis. Stamen 5; anthers yellow to orange, denticulate anthers, tinged slightly black in color at top, 0.1 cm in length. Stigma green in color, style 1.5 cm long. Fruit berry white, cream or yellow, subsessile, ovoid 0.7- 1.1 cm. seeds 1-5(-8) per berry, dark brown or blackish, ellipsoidal, prismatic, usually curved, 3-5.5 × 2-4 mm, small vestigial or abortive seeds also present.

Flowering and fruiting

December- March.

Conservation

Wide Spread, Least Concern (LC).

Distribution

Native to Mexico, Guatemala, Nicaragua and Costa Rica but now widely cultivated throughout Africa, Europe and Australia. India (Tamil Nadu, Karnataka, Maharashtra, Odisha)

Specimen examined

India, Eastern Ghats, Odisha, Khordha Dist, Kapileswar, Manikarnika pond, 20°13'45.4" N 85°49'41.0"E; Madhusmita Mallia and P.K. Das RPRC-11210, dated 11-05. 2020. (Fig. 1)



Fig 1: *Cestrum auranticum* Lindl. A. Herbarium specimen, B. Inflorescence Twig, C. Fruiting twig, D. Seeds

Habitat and ecology

This species is rarely found on the slopes along the pond area of Manikarnika and also the village area of Kapileswar. It's local distribution in continuous and population is represented by some of the very known individuals. A small numbers of species were found near the slopes and muddy region of the Manikarnika pond. The commonly associated species along the pond side in the habitat include *Solanum nigrum* L., *Physalis minima* L., *Alternanthera sessilis* (L.) R.Br. ex DC. *Zephyranthus candida* (Lindl.) Herb, *Oxalis debilis* H.B.K.

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