



CORYNANDRA CHELIDONII VAR. PALLAI (REDDY AND RAJU) V.S. RAJU; - NEW ADDITION TO THE ANGIOSPERMIC FLORA OF MAHARASHTRA, INDIA.

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ABSTRACT:

Field survey resulted in collection of *Corynandra chelidonii* var. *pallai* (Reddy and Raju) V.S. Raju, of family Cleomaceae as a new addition to the flora of Maharashtra State with recent literature of classification system. The paper also envisages brief citation, description, flowering and fruiting time followed by ecological notes.

Keywords: *Corynandra chelidonii*, diversification, taxonomic literature and Phenology.

INTRODUCTION:

In the recent years there are some new additions were reported to the Flora of Maharashtra State such as *Juncus bufonius* L. (Lekhak et al., 2011), *Premna mollissima* Roth. (Paithane and Bhuktar 2013); *Hedychium flavescens* Carey ex Roscore (Jadhao et al., 2014); *Physalis pruinosa* L. (Somkuwar et al. 2014); *Amomum maximum* Roxb. And *Zingiber capitatum* Roxb. var. *elatum* (Roxb.) Baker. (Govekar and Sardesai 2015); *Opilia amentacea* Roxb. (Somkuwar et al. 2015); *Amorphophallus longiconnectivus* Bogner. And *Phyllodium longipes* (Craib) Schindl. (Gadpayale et al., 2016) etc.

The genus *Cleome* was first described by Linnaeus in *Species Plantarum*, Vol. 2 (1753: 671) of family Cleomaceae is almost universally accepted from the past 140 years (e.g. Hooker and Thomson 1872, Cooke 1903, Sundararaghavan 1993, Reddy and Raju 2001 and Kers 2003) with approximately 250 accepted species (Mabberley 2008 and The Plant List 2018) in the world (Cooke 1903).

Recently available literature of Iltis and Cochrane (2007, 2014) represents the division of *Cleome* s.l. into a number of segregate genera. According to Cochrane and Iltis (2014), the genus *Corynandra* Schrad.ex Spreng., based on *Corynandra chelidonii* (L. f.) Cochrane and Iltis (*Cleome chelidonii* L. f.)

which is re-established with other four combinations as *C. felina* (L. f.) Cochrane and Iltis, *C. flava* (Banks ex DC.) Cochrane and Iltis, *C. viscosa* (L.) Cochrane and Iltis and *C. viscosa* subsp. *nagarjunakondensis* (Sundararagh.) Cochrane.

In relation to this some worker as Russell L. et. al. (2017) in resolving generic boundaries in Indian-Australasian Cleomaceae: Circumscription of *Areocleome*, *Arivela*, and *Corynandra* as distinct genera and Feodorova, T. A. et al. (2010) provides molecular data for the diversification and the origin of C4 in *Cleome* (Cleomaceae) which also explore and concrete the opinions of Cochrane and Iltis (2014) which is represented by 18 species in India (Sundararaghavan 1993) and 12 species in Maharashtra state (Flora of Maharashtra state by BSI, Vol-I, 2000) including recent discovery of *Corynandra elegans* Chandore, U.S. Yadav and S.R. Yadav (2016).

In the present work *Cleome chelidonii* L. f. is now considered as *Corynandra chelidonii* (L. f.) Cocharane and Iltis. (2014) which is also consider by Subhash Sirangi and Ajmeera Ragan (2017) in their study of Dormancy and in-vitro seed germination of *Cleome chelidonii* var. *pallai* C.S. Reddy and V. S. Raju (2001) as *Corynandra chelidonii* var. *pallai* (reddy

and raju) V.S. Raju, ined. [(V.S. Raju, per. comm.) (2017)].

There is no any information in any regional flora and taxonomic literature about the occurrence of this species in Maharashtra State; hence this article is about the first time reporting of *Corynandra chelidonii* var. pallai (Reddy and Raju) V.S. Raju for the Angiospermic flora of Maharashtra State, India.

METHOD AND MATERIAL:

Field explorations were made in Eastern region of Maharashtra State, India to collect specimens in different seasons (2015 to 2018) in order to record the actual and essential key characters of specimens in reproductive and vegetative phases. Herbarium specimens were prepared and all relevant data were recorded in a field book along with photographs.

Taxonomic treatment for *Corynandra chelidonii* var. pallai (reddy and raju) V.S. Raju (SubhashSirangi and Ajmeera Ragan 2017; Reddy, C.S. and Raju, V.S 2001, a new variety of *Cleome chelidonii* L. f. Cleomaceae, Journal of Economic and Taxonomic Botany 25: 217–218).

RESULTS AND DISCUSSION

Erect, annual herb, much branched up to 1.5 m high; internodes to 12 cm. Basal leaves 3–5 foliate; leaflets up to 4-7 x 0.3-0.7 cm. lanceolate, cuneate at base, acute or rounded at apex margin crenate to crenate-serrate. Petiole 4- 8 cm, upper leaves 1–3 foliate; leaflets linear, base cuneate or rounded, apex acute, serrate. Petiole 2-4 cm. Flowers showy, pinkish or rosy in lax terminal corymbose racemes. Bracts foliaceous 1.5 mm long. Flower buds ovoid. Sepals elliptic, acuminate 1.5-2 mm. Petals ovate, 1.4- 1.7cm, rosy (pink). Stamens numerous (120–160); filaments 1.5- 1.8 cm, purple tinged. Ovary sessile, 8-10 mm long, glabrous. Capsule linear-cylindrical, narrow at the base, beak 5-10 mm long. Valves striate, parallel nerved, glabrous. Seeds

many asymmetrical ovoid, comma shaped, compressed. 1.3–1.8 mm in diam. dark brown, central portion paler and smooth, cleft narrow, slightly coloured, about 0.5- 0.7 mm deep. Testa with scattered scales, bearing waxy coating, elaisome absent.

CONCLUSION:

Habitat: Margins of Lake and Stream.

Distribution: Kondha, Bhuyar, Shahapur, Kardha, and Khapari (Chichal) Dist.- Bhandara (Maharashtra) India.

Phenology: Flowering and fruiting: July–December.

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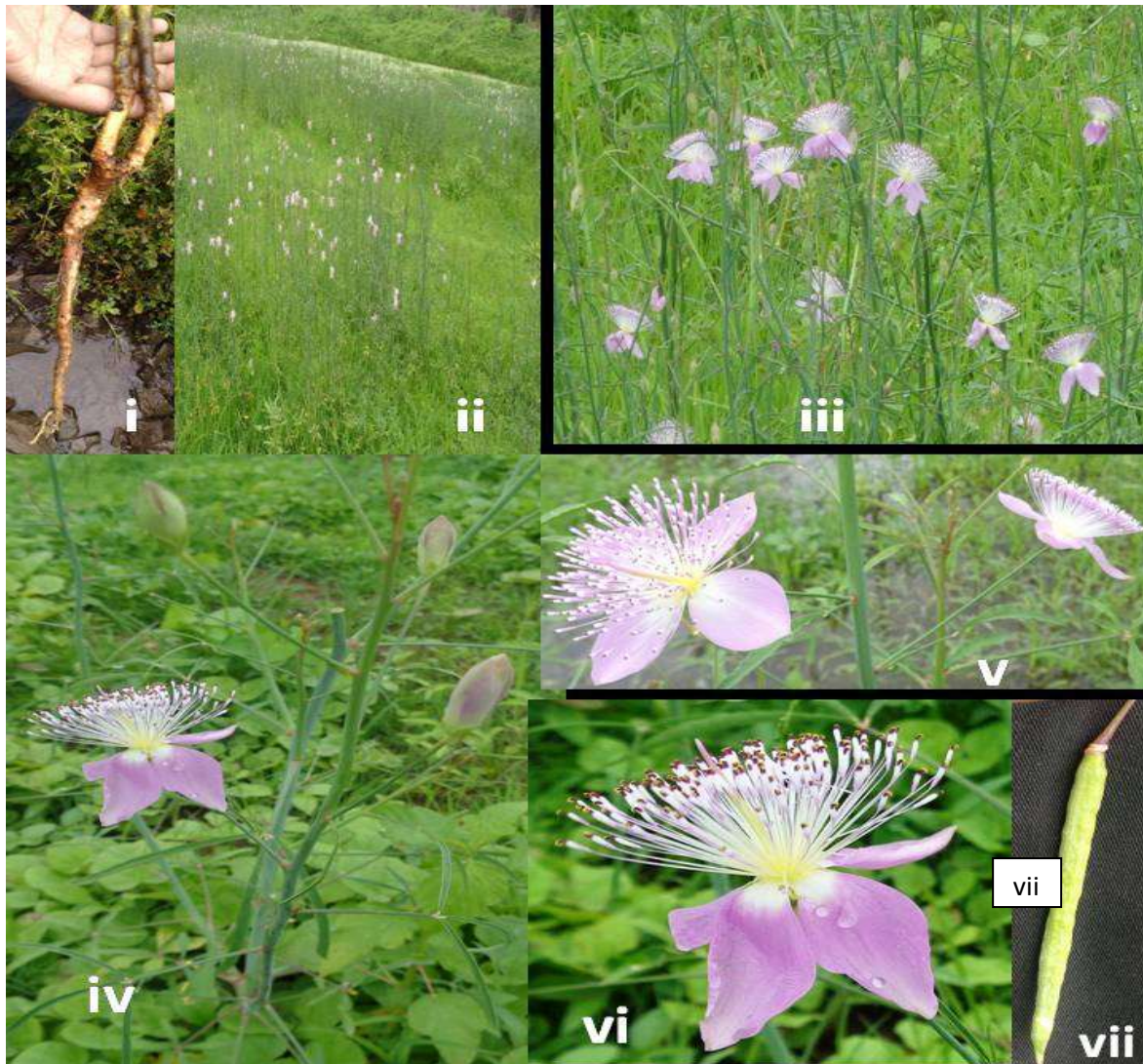


FIG.1- *Corynandra chelidonii* var. *pallai* (Reddy & Raju) V.S. Raju; i-Root view, ii- in habitat, iii- Flowering, iv- single twig with buds, v- flowering mode at node, vi- single flower, vii- fruit.