



## NEW DISTRIBUTIONAL RECORD OF AN ENDANGERED PLANT *CURCUMA CAULINA* J. GRAHAM (ZINGIBERACEAE) FOR RATNAGIRI DISTRICT OF MAHARASHTRA STATE

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*Curcuma caulina* J. Graham (Zingiberaceae) is reported here as an addition to Ratnagiri district of Maharashtra. The species is endemic to Maharashtra, with its previous records from Pune and Satara districts.

**KEY WORDS:** *Curcuma caulina*, New record, Ratnagiri, Maharashtra.

*Curcuma* L. is a genus of about 100 accepted species in the family Zingiberaceae that contains such species as turmeric and Siam Tulip. They are native to Southeast Asia, southern China, the Indian Subcontinent, New Guinea and northern Australia. Some species are naturalized in other warm parts of the world such as tropical Africa, Central America, Florida, and various islands of the Pacific, Indian and Atlantic Oceans. During routine floristic survey of Ambaghat in the Ratnagiri district of Maharashtra State author came across an interesting population of *Curcuma caulina* J. Graham belonging to Zingiberaceae. This species is endemic to the state of Maharashtra, in southwest India. The taxon is reported to occur in the Pune and Satara Districts (localities of Khandala, Purandhar, Koyna, Mahabaleshwar, Pandvgad and Yaveteshwar), on the plateaus of the Ambavane Sakharpathar range, Mandhardevi, Panchgani and Kas-Thoseghar ranges (Jagdale and Kanwar 2004).

This species is known only from six collections. It is reported to be a common species in the Mahabaleshwar (Santapau 1953) and Panchgani area (Peter 2007). From other localities its distribution is reported as infrequent (Mishra and Singh 2001), and rare in Khandala (Santapau 1953). Santapau (1957) reported that excursions, from 1944 to 1946, in Purandhar did not find the species, although local people reported it as abundant. The taxon was reported to be abundant on the table-land

of Mahabaleshwar by Hooker (1894), as common by Deshpande *et al.* (1995) and abundant by Almeida (2009). The taxon has been included in the IUCN red list of threatened species by Romand and Contu (2013). After critical study of taxon and literature survey on the floristics of Maharashtra, it has been found that the species has not been reported by previous workers from the Ratnagiri district. Hence it is the first report of its occurrence in the Ratnagiri district.

### TAXONOMY

*Curcuma caulina* J. Graham Cat. Pl. Bombay 210, 1839; Dalz. & Gibs., Bombay Fl. 275, 1861; Lisboa in Jour. Bom. Nat. Hist. Soc. 2: 140, 1889; Lee, Gzettee. Bombay 19: 466, 1885; Cooke, Gazett. Bombay 19: 651, 1885; Voight, Hort. Suburb. Cal. 567, 1845. *Hitchenia caulina* (J. Graham) Baker in Hook.f., Fl. Brit. Ind. 6: 224, 1890; Woodrow in J. Bom. Nat. Hist. Soc. 12: 520, 1899; Cooke, Fl. Pres. Bombay 2: 738, 1907; Puri & Mahajan, Bull. Bot. Surv. India 2: 134, 1960; Bole and Almeida in J. Bom. Nat. Hist. Soc. 83: 585, 1986; Karthik. *et al.*, Fl. Ind. Enum. Monocot. 296, 1989; Lakshminarsimhan in Sharma *et al.*, Fl. Maharashtra (Monocotyledons) 79, 1996; Almeida, Fl. Maharashtra 5A: 104, 2009; Kavade and Deokule, Fl. Chandoli Nat. Park, West. Ghats-Maharashtra, Ind. 381, 2015. *Sitachavar, Chavar, Kachar, Kasachar.*

Annual herbs, grows up to 50-100 cm high,



*Curcuma caulina* J. Graham

presence of perennial rhizome with many ellipsoid hanging tubers, tubers white inside; aromatic, stem leafy, 1-1.6 m high, glabrous. Leaves up to half meter long, oblong-lanceolate, acuminate at apex, narrowed at the base, wavy, strongly nerved, glabrous, petioles sheathing. Flowers occur in spike, 10-15 cm long, yellow or white in color, 8 cm in diameter, bracteate, 4-5 in each bract, bracts 2-6 cm long, greenish-white, tinged with red, cuneate-obovate. Calyx membranous, tubular, trifid. Corolla tube 5-6 cm long, slender; lobes membranous, two smaller and one larger, large one oblong-ovate, slightly acuminate, smaller one oblong-linear. Lateral staminodes petaloid, 1.4-1.8 cm long. Lip 0.8-1 cm in diameter, bifid with yellow band at the division. Anther cells oblong, spurred at the base. Ovary 3-celled; style hidden between cells of anther, stigma 2-lipped, funnel shaped, projecting beyond the anther, ciliate at top. Seeds ovoid, arillate.

**Flowering and Fruiting:** August-October

**Habitat:** Found on hilly slopes in the ghat area.

**Exsiccate:** KGM 3741, 3982.

**Distribution:** Endemic to Maharashtra [Ratnagiri; Ambaghat; Satara; Pune:]

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#### REFERENCES

- Almeida M R 2009 *Flora of Maharashtra volume V-A*. Blatter Herbarium, Mumbai.
- Deshpande S, Sharma B D and Nayar M P 1995 *Flora of Mahabaleshwar*. Botanical Survey of India, Calcutta.
- Hooker J D 1894. *Flora of British India* Reeve and Co, London.
- Jagdale R and Kanwar P 2004 *Vegetation of high altitude lateritic plateaus of Maharashtra- a baseline study*. In: Sakharpathar (ed.). Univeristy of Pune.
- Mishra D K and Singh N P 2001 *Endemic and Threatened Flowering Plants of Maharashtra*. Botanical Survey of India, Calcutta.
- Peter K V 2007 *Underutilized and Underexploited Horticultural Crops*. New India Publishing, New Delhi.
- Romand-Monnier Fand ContuS2013*Curcuma caulina*. The IUCN Red List of Threatened Species 2013:e.T44392545A44510728. <http://dx.doi.org/10.2305/IUCN.UK.2013-1.RLTS.T44392545A44510728.en>. Downloaded on30 March2017.
- Santapau H 1953 *The Flora of Khandala*. Records of the Botanical Survey of India, New Delhi.
- Santapau H 1957 *The Flora of Purandhar*. Oxford University Press, New Delhi.