

## Notes on the range extension of endemic *Amorphophallus konkanensis* var. *konkanensis* (Araceae)

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### Abstract

The endemic *Amorphophallus konkanensis* Hett., S.R.Yadav & K.S.Patil var. *konkanensis*, hitherto recorded from Maharashtra, Karnataka, Goa, Madhya Pradesh and Andhra Pradesh, is recorded for the first time from Telangana state. The detailed notes are provided.

### INTRODUCTION:

The genus *Amorphophallus* Blume ex Decne. (Araceae) is distributed in tropical Africa, Madagascar, tropical and subtropical Asia, the Malay Archipelago, Melanesia and Australia with c. 200 species (Mayo *et. al.*, 1997; Jaleel *et. al.*, 2011). Engler (1911) recognized eleven sections within this genus, which were later refined to ten sections. In India, the genus is represented by 27 taxa (23 species and 4 varieties) within three sections viz., *Candarum* Engl., *Conophallus* (Schott) Engl. and *Rhaphiophallus* (Schott) Engl. (Mujaffar *et al.*, 2012). Among the listed 27 taxa, *Amorphophallus bognerianus* Sivad. & Jaleel, *A. bonaccordensis* Sivad. & N.Mohanan, *A. carnosus* Engl., *A. commutatus* var. *commutatus* (Schott) Engl., *A. commutatus* var. *anmodensis* Sivad. & Jaleel, *A. commutatus* var. *anshiensis* Punekar, Lakshmin. & Sivad., *A. hohenackeri* (Schott) Engl. & Gehrm., *A. konkanensis* Hett., S.R.Yadav & K.S.Patil, *A. longiconnectivus* Bogner, *A. longistylus* Kurz ex Hook.f., *A. margaritifera* (Roxb.) Kunth, *A. mysorensis* var. *mysorensis*, *A. mysorensis* var. *bhandarensis* (S.R.Yadav, Kahalkar & Bhuskute)

Sivad. & Jaleel, *A. nicolsonianus* Sivad., *A. oncophyllus* Prain ex Hook.f., *A. Shyamsalilianus* J.V.Gadpay., Somkuwar & A.A.Chaturv. and *A. smithsonianus* Sivad., (Sasikala *et.al* 2021) and *Amorphophallus konkanensis* var. *kinnerasaniensis* J.Swamy & Rasingam are endemic to India

Only three taxa of *Amorphophallus* are hitherto recorded in Telangana state viz., *Amorphophallus paeoniifolius* (Dennst.) Nicolson, *A. sylvaticus* (Roxb.) Kunth and the recently described *A. konkanensis* var. *kinnerasaniensis* J.Swamy & Rasingam (Pullaiah, 2015; Reddy & Reddy, 2016, Swamy & Rasingam, 2020).

### METHODOLOGY:

During the floristic explorations in Bhadradi Kothagudem district of Telangana state, first author collected an interesting specimen of *Amorphophallus*. The critical study using relevant literatures (Mujaffar *et.al.* 2012; Jaleel *et al.*, 2014; Chorghe *et al.*, 2017 and Sasikala *et al.*, 2019) confirmed its identity as *Amorphophallus konkanensis* var. *konkanensis*, which is an addition to the Flora of Telangana state.

**RESULTS AND DISCUSSION**

*Amorphophallus konkanensis* Hett., S. R. Yadav & K. S. Patil var. *konkanensis*, *Blumea* 39: 289 (1994); Hett. & Ittenb. *Aroideana* 19: 90 (1996).

**Type:** India, Maharashtra State, Sindhudurg Dist., Maneri, 15.4.1992, K.S. Patil 4687A (holotype: CAL); K. S. Patil 4687- B (paratype: BLAT) K. S. Patil 4687-C (paratype: L).

**Description:** Herbaceous annual, erect, growing up to 65-70cm height. Tubers globose or depressed globose, roots 3-10 cm long. Petiole 20-80 cm long, pale brownish or greenish-brown with pale yellowish-green to white stripes and pinkish mottling. Lamina 38-80 cm dia., rachises winged, leaflets linear-lanceolate, 6.5 - 20 cm long and 1.5-4.5 cm broad, acuminate at apex, green above and paler below. Peduncle smooth, 28-60 cm long. Spathe broadly ovate in outline, when spread flat, completely convolute throughout the length with an opening at the top, 6-8 cm long and, tip acute, limb poorly differentiated from the tube, dirty pinkish with a brownish hue, faint brownish spots, and dark purple brown veins outside, dark maroon within. Spadix much longer than the spathe, 17-21 cm long, with a greenish stripe c. 5 mm long; female zone 1-1.5 cm long many flowered, neuter zone 0.8-1 cm long, male zone 3.2-4.2 cm long; spadix appendix 6.5 -12.8 cm long. Female flowers: ovary globose, 1 mm long, pale green, becoming purplish near the top, usually 3-locular, rarely 2 or 4-locular; style very short, c. 0.3 mm long, purplish; stigma 3- or 4-lobed, 0.6 mm long, verruculate, pale yellowish; neuter flowers rhomboid, slightly convex, whitish or faintly purplish or dark purple. Male flowers: each c. 0.8 mm high, thecae whitish, connective brownish; spadix appendix cylindrical, apically tapering, dirty olive green. Fruits are green and yellowish at early stage turns pinkish-red at maturity; usually 3-seeded, rarely 2 or 4-seeded. Seeds ovoid; each 7-8 mm long.

**Flowering & Fruiting:** May- August

**Distribution:** Goa, Karnataka, Andhra Pradesh and Madhya Pradesh, present reports from Telangana state (Bhadradi Kothagudem district).

**Ecology:** Nearly 10 to 12 individuals were observed in Pagideru beat, Kondaigudem section, Manuguru range and division, Bhadradi Kothagudem district and they were growing on humus rich black soil at an elevation of 212 msl. The associated species are *Curculigo orchoides* Gaertn., *Dioscorea bulbifera* L. *Hemidesmus indicus* (L.) R.Br. and *Schleichera oleosa* (Lour.) Oken.

**Specimens examined:** India, Telangana, Bhadradi Kothagudem district, Manuguru range & Division, Kondaigudem section, Pagideru beat, 7<sup>th</sup> July 2022, G. Ravi 0995 (HY).

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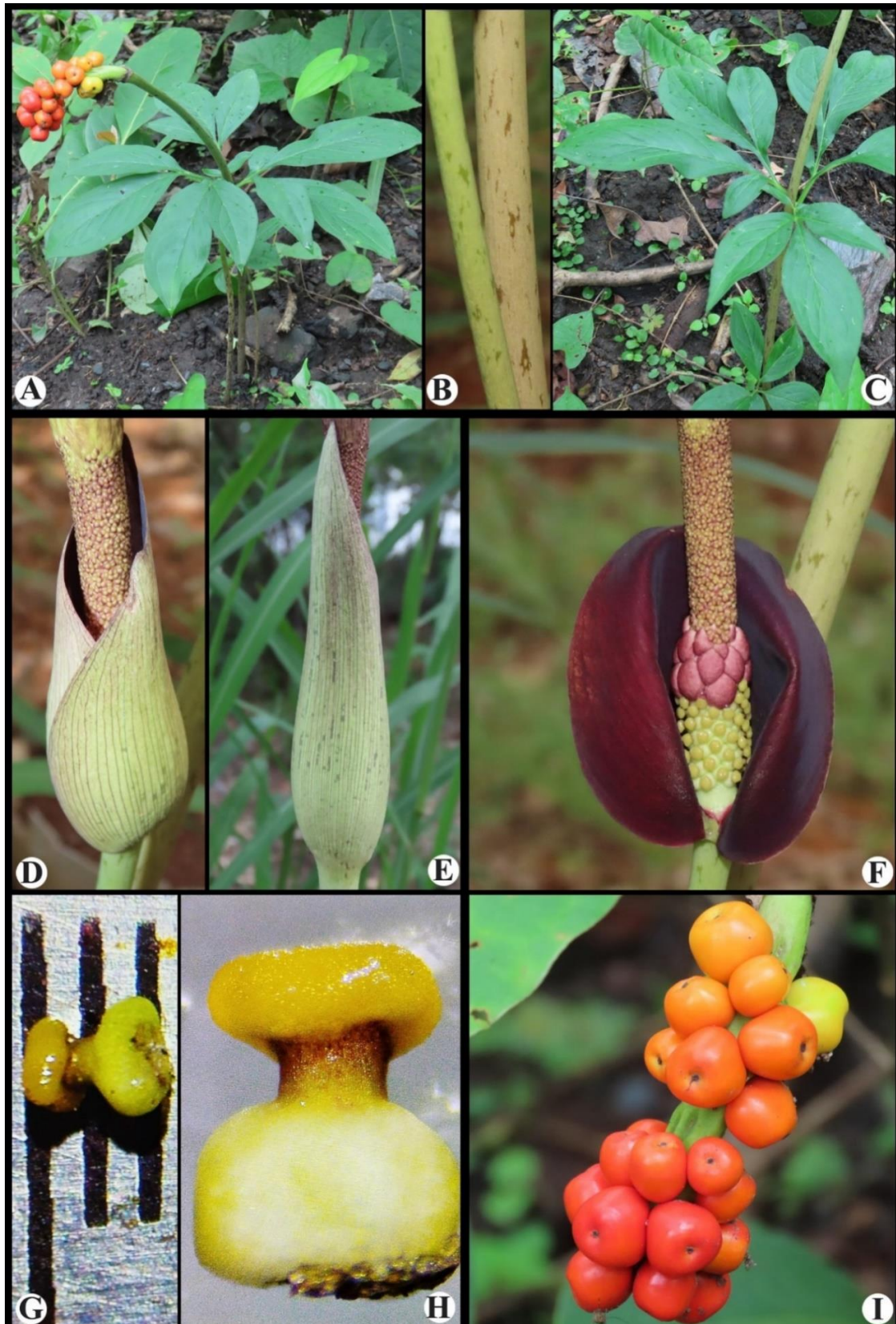


Fig.1. *Amorphophallus konkanensis*., A. Habitat, B. Stem portion, C. Leaves, D & E. Spathe lower side & Upper side view, F. Inflorescence, G & H. Female flower, I. Inflorescence.