

**AMORPHOPHALLUS KONKANENSIS HETT. YADAV & PATIL. A NEW RECORD FROM MADHYA PRADESH, INDIA**Shaikh Mujaffar,<sup>1</sup> Shakun Mishra<sup>2</sup> and C.M. Solanki<sup>1</sup><sup>1</sup>PMB Gujarati Science College Indore, M.P.<sup>2</sup>S.N. Govt. P.G. College, Khandwa, M.P.

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**ABSTRACT**

The genus *Amorphophallus* is represented by 200 species (Mayo *et al.*, 1997) in the world; of these only 9 species (Jaleel *et al.*, 2011) are found in India. Khanna, *et al.*, (2001) mentioned 5 species (excluding *Amorphophallus konkanensis*) from Madhya Pradesh. The taxon *A. konkanensis* has been reported from Goa, Maharashtra and Karnataka state. The present communication reports the occurrence of *A. konkanensis* the first time from Madhya Pradesh.

**Key words:** *Amorphophallus konkanensis*, Araceae, new record, Madhya Pradesh.

**INTRODUCTION**

Several plant surveys were carried out in different localities of East Nimar district viz., Khandwa and Burhanpur during 2009-2011. The authors came across an interesting plant. After critical examination with relevant literature the material was identified as *Amorphophallus konkanensis* Hatt. Yadav & Patil.

The genus *Amorphophallus* Blume ex Decne has about 200 species distributed in tropical Africa, Madagascar, tropical and subtropical Asia, the Malay Archipelago, Melanesia and Australia (Mayo, S.J., Bogner, J. and Boyce, P.C., 1997). In India *Amorphophallus* is represented by three sections, viz., *Candarum* Engl., *Conophallus* (Schott) Engl. and *Rhaphiophallus* (Schott) Engl. *Amorphophallus* sect. *Rhaphiophallus* is the largest section of the genus in India. It is characterized by the presence of staminodes (neuters) between the male and female zones of the spadix. The genus has 9 species of which 5 species are found in Madhya Pradesh: *Amorphophallus bulbifer* (Roxb.) Blume, *Amorphophallus longiconnectivus* Bogner, *Amorphophallus margaritifera* (Roxb.) Kunth, *Amorphophallus paeoniifolius* (Dennst.) Nicols. var. *campanulatus* (Decne) Sivadasan and *Amorphophallus sylvaticus* (Roxb.) Kunth. The species in discussion, *Amorphophallus konkanensis* has not been described by Khanna, *et al.*, (2001). Hence *Amorphophallus konkanensis* is a new record for Madhya Pradesh.

***Amorphophallus konkanensis* Hett., S.R. Yadav & K.S. Patil, Blumea 39:289 (1994) Plate. 1.**

Tubers globose or depressed globose, 3-4 cm diam. and 1.5-2.5 cm thickness in vegetative phase; 6-9 cm diam. and 4-5 cm thickness in reproductive phase, skin pale brownish; roots 3-10 cm long, c. 1 mm diam. Petiole 20-80 cm long, 0.8-1.5 cm diam. at base, pale brownish or greenish-brown with pale yellowish-green to white stripes and pinkish mottling. Lamina 38-80 cm diam., rachises winged, leaflets linear-lanceolate, 6.5-20 cm long and 1.5-4.5 cm broad, acuminate at apex. Peduncle smooth, 28-60 cm long, at base, colour and pattern of mottling same as that of petiole. Spathe broadly ovate in outline, when spread flat, opening at the top, dark purple brown veins outside, dark maroon within. Spadix much longer than the spathe, 15-21 cm long; female zone 1.3-1.8 cm long, staminodial zone 0.8-1.2 cm long, male zone 3.4-4.2 cm long; spadix appendix 10-14 cm long. Female flowers: Ovary globose, pale green, becoming purplish near the top, usually 3-locular, rarely 2 or 4-locular; style very short, c. 0.3 mm long, stigma 3- or 4-lobed, verruculate, pale yellowish; neuter flowers rhomboid, slightly convex, whitish or purplish. Male flowers: c. 0.8 x 1.3 mm, whitish, connective brownish; spadix appendix cylindrical. Fruits greenish, turning brownish-red at maturity; usually 3-seeded. Seed ovoid.

Distribution- Madhya Pradesh: Khalwa, Awalia, Roshni, Sunderdav, Singot (Khandwa district) and Asirgarh, Neapanagar, Mandwa, Shahpur & Jainabad (Burhanpur district).

Habitat & Ecology- Common in forest clearing areas, road sides & hedges of cultivated

field. Flowering: April-May; fruiting: May-June. *Amorphophallus konkanensis* Hatt. & Yadav is very similar to *Amorphophallus sylvaticus* (Roxb.) Kunth., but differs in following characters given in the Table 1. & Fig 1a & 1b.



**Plate 1.** *Amorphophallus konkanensis* Hett., S.R. Yadav & K.S. Patil. A. Tuber; B. Vegetative phase; C. Reproductive phase; D. Inflorescence – spathe partially removed showing spadix; E. Female flowers; F. Male flowers; G. Single female flower; H. Female flower L.S., I. Fruits.

**Table 1: Distinguishing morphological characters of *A. konkanensis* & *A. sylvaticus*.**

Characters	<i>A. konkanensis</i>	<i>A. sylvaticus</i>
Tubers	globose	sub-globose
Lamina	leaflets linear-lanceolate	leaflets ovate-elliptic, lanceolate. or linear-lanceolate.
Spathe	ovate, purple-brown outside, dark maroon within	ovate, pale pinkish or greenish-purple outside, purple within
Female flowers	ovary globose, 3-locular, rarely 2 or 4-locular, style c. 0.3 mm long, stigma 3- or 4-lobed, verruculate,	ovary sub-globose, 2-locular, style 1-1.5 mm; stigma 2-lobed, irregular small warty at maturity.
Male flowers	c. 0.8 x 1.3 mm	c. 1.3 x 1.5 mm
Neuter flowers	rhomboid, whitish or faintly purplish or dark purple.	oblong-gibbous, dark brown.
Seeded	3-seeded, rarely 2 or 4-seeded.	2-seeded.

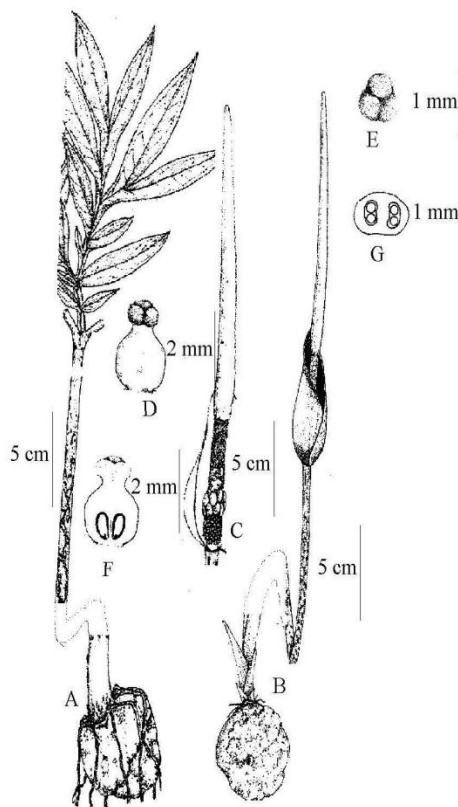


Fig 1a - *Amorphophallus konkanensis* Hatt., Yadav & Patil.

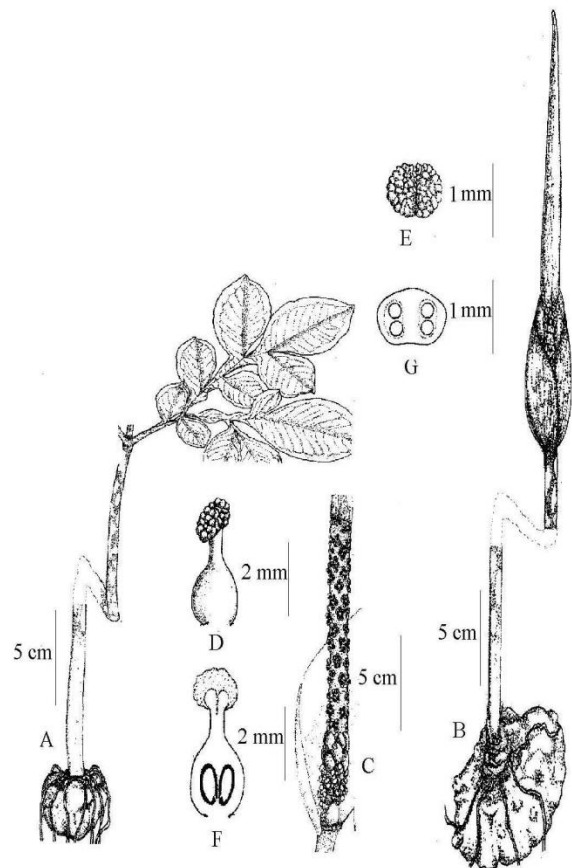


Fig 1b. - *Amorphophallus sylvaticus* (Roxb.) Kunth.

**Fig 1a (*A. konkanensis*) & 1b (*A. sylvaticus*): A. Tuber with leaf., B. Tuber with inflorescence., C. Inflorescence-spathe partially removed showing., D. Female flower., E. stigma –view from top; F. Female flower- L.S., G. Male flower- C.S.**

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#### LITERATURE CITED

**Bogner J, 1995.** A remarkable new *Amorphophallus* (*Araceae*) from India. *Kew Bull.* **50**:397-400.

**Hetterscheid WLA and de Sarker D, 1996.** Notes on the Genus *Amorphophallus* (*Araceae*)-7. *Amorphophallus* (*Plesmonium*) *margaritifera* (Roxb.) Kunth in *Profile. Arodeana.* **19**:132-138.

**Hetterscheid WLA, Yadav SR and Patil KS, 1994.** Notes on the genus *Amorphophallus* (*Araceae*) -5. *Amorphophallus konkanensis*, a new species from India, and taxonomic reflections on *Amorphophallus* section *Rhaphiophallus*. *Blumea*, **39**:289-294.

**Hooker JD, 1893.** *Amorphophallus*. In Hooker, J.D. Flora of British India, Vol. 6. L. Reeve & Co. Ltd., London, pp. 235-239.

**Jaleel VB, Sivadasan M, Alfarhan AH, Thomas J and Altar AA, 2011.** Revision of *Amorphophallus* Blume ex Decne. Sect. *Rhaphiophallus* (Schott) Engl. (*Araceae*) In India. *Bangladesh J. Plant Taxon.* **18** (1):1-26.

**Khanna KK, V Mudgal and Dixit RD, 2001.** Flora of Madhya Pradesh Vol-III. BSI, Calcutta.

**Mayo SJ, Bogner J and Boyce PC, 1997.** *Amorphophallus*. In: The genera of *Araceae*. Royal Botanic Gardens, Kew, pp.235-239.