AMORPHOPHALLUS KONKANENSIS HETT. YADAV & PATIL. A NEW RECORD FROM MADHYA PRADESH, INDIA

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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 margaritifer (Roxb.) Kunth. Amorphophallus paeonifolius (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.


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 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, Napanagar, Mandwa, Shahrpur & 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 sylvesticus* (Roxb.) Kunth., but differs in following characters given in the Table 1. & Fig 1a & 1b.

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

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

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