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Research Article

Typhonium inopinatum Prain (Araceae: Areae) A New Report to the flora of Maharashtra state from Bhandara District, India

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Abstract

The present paper deals with the morphotaxonomic representation of *Typhonium inopinatum* Prain, a rareplant species as a new addition to the flora of Maharashtra statefrom Bhandara district, India whichis the new type locality for India and differs in having subcylindric tubers, Spathe-limb twisted at tip Spadix with yellow male zone, sterile flowers filiform and decurved covering female zone partially.

INTRODUCTION

Typhonium Schott comprises *c.* 69 species, distributed in Mongolia to Tropical Asia and Australia (Govaerts *et al*., 2014). Engler (1920) recognized 23 species in 2 sections while Sriboonma *et al*. (1994) recognized 37 species in 5 sections. The genus is represented by 10 species and 2 varieties in India as*Typhonium listeri* Prain, *T. diversifolium* Wall; *T. bulbiferum* Dalzellet; *T. flagelliforme* (Lodd.) Blume; *T. blumei* Nicolson; *T. roxburghii* Schott; *T. trilobatum* (L.) Schott; *T. inopinatum* Prain &*T. gracile* (Roxb.) Schott (Nicolson, 1981; Karthikeyan *et al*, 1989).A scrutiny of the floras of central, northern and northeastern India (Haines, 1921-1925; Duthie, 1929; Srivastava, 1996;Singh *et al*., 2001; Vaish, 2001; Saini, 2005; Chowdhery *et al*., 2009) showed that this species has not been recorded in any of the floras and has very restricted distribution in India (Anand Kumar & *et al*., 2014). *Typhonium khandwaense* a new species reported from Madhya Pradesh by Mujaffar & *et.al*., (2013) which is criticized by Anand Kumar & *et al*. (2014) and conform it as a synonym for *T. inopinatum* Prain.

Only four species of *Typhonium* are reported for the Maharashtra state flora as *T. bulbiferum* Dalzellet; *T. flagelliforme* (Lodd.) Blume; *T. roxburghii* Schott; and *T. trilobatum* (L.) Schott; inthe flora of Maharashtra state by Sharma & *et al.* (1996).

During recent botanical exploration (2012-13) in Bhandara district the authors collected an interesting specimen from three locality names as Tumsar, Bagheda, and Nimgaon village. The specimens were identified as *T. inopinatum* Prain, which has been included under *Typhonium* sect., *Typhonium* by Sriboonma *et al.* (1994) with the available references of Mujaffar, S. & *et al.* (2013) and Anand Kumar & *et al*. (2014) and reported as a new addition to the flora of Maharashtra state. The specimen is preserved in PGT Department of Botany, Rashtrasant Tukdoji Maharaj University Herbarium, Nagpur, Maharashtra and living specimen in the Botanical garden of S. N. Mor

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Taxonomic treatment and photographic presentation *Typhonium inopinatum*Prain:-

Typhonium inopinatumPrain in King & Prain, J.Asiat. Soc. Bengal Pt. 2. Nat. Hist. 67: 301. 1898 &Bengal Pl. 1107. 1903; Engl., Pflanzenr. 73 (IV. 23F):116. 1920.*T. inopinatum* var. *trisectum* Engl., Pflanzenr. 73(IV. 23F): 117. 1920.*T. khandwaense* Mujaffar, Yasin & Mustakim, Biosci.Disc. 4: 25. 2013.

Tuberous perennial herbs, 10-45 cm high; tuberssubcylindric, 1-3 × 0.8-1.5 cm. Leaves ovate totriangular or hastate, 5-11 × 4-11 cm; basal lobesorbicular, margin entire, acuminate at apex;secondary veins 6-10 pairs, brochidodromous;petioles 5-30 cm long, tinged with purplestreaks and spots at base. Inflorescence solitary,monoecious; peduncles much shorter thanpetioles 1-2 cm long. Spathes with basal globoseto ovoid, convolute tube and an apical limb witha constriction between the two, mostly greenishoutside; tube 0.8-2 cm long; limb narrowly ovateto lanceolate, 5.5-9 × 1.2-2 cm, margins entire,acuminate, recurved and coiled apically, glabrous,greenish with light purple externally, green withdark purple streaks and spots internally. Spadix4.3-9 cm long, shorter than spathe limb with abasal pistillate zone followed by a zone of sterileflowers, a naked zone or interstice, a staminatezone and a terminal barren appendix. Bothpistillate and sterile flower zones are enclosed bybasal tube. Pistillate zone conical, 3-3.5 mm long,greenish; flowers sessile, 1-1.5 mm long; ovaryellipsoid, 1-1.3 mm long, glabrous; style very short;stigma disc-shaped, *c.* 0.3 mm diam., glabrous.Sterile flower zone yellow, 2-4.5 mm long; sterileflowers filiform, decurved with entire or bifurcatedpointed tip, each 2.5-4 mm long, yellow, partiallycovering pistillate flower zone. Naked zone 6-9mm long. Staminate zone cylindric, 5-9 × 2-3 mm,pale yellow; flowers sessile, 0.5-1 mm long with 2thecae; dehiscence by apical short slits or pores.

Flowering & fruiting: May - October.

Habitat:*T. inopinatum* was found growing inmoist, shady places and open wet sandy soils. **Specimens examined**: INDIA.**Maharashtra**Bhandara district, Tumsar, Bagheda and Nimgaon village, forest patches, open wet area, latitudes $20^0$39' and $21^0$38' North and longitudes $79^0$27' and $80^0$42' East, 25- 27 August 2013, J. V. Gadpayale- JVGBH-0242.

Distribution in India: - Bihar, Maharashtra (in this publication), Madhya Pradesh, UttarPradesh & West Bengal

Conservation status: Known now only from Bhandara district for Maharashtra state, INDIA.

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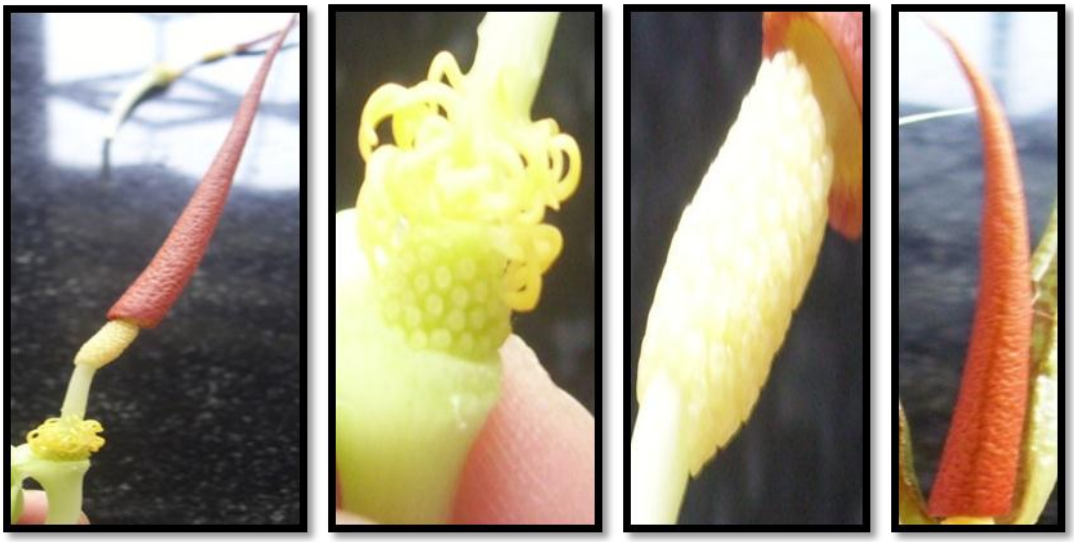
Vegetative morphology of ***Typhonium inopinatum*** **Prainin habit with its Spadix**

Inflorescence of ***Typhonium inopinatum*** **Prainin close & open spathae**



Spadix & its various enlarge zones of *Typhonium inopinatum* Prain.

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