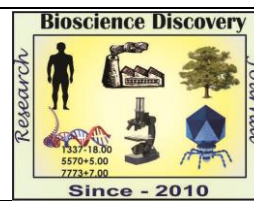


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Research Article



***Typhonium flagelliforme* (Lodd.) Blume (Araceae: Areae) A New Record to the Flora of Madhya Pradesh, From Burhanpur District India**

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Abstract

Typhonium flagelliforme (Lodd.) Blume (Araceae), is reported here for the first time for Burhanpur district from Madhya Pradesh forms an addition to the Araceae, flora of Madhya Pradesh. Brief descriptions along with photograph are provided to facilitate easy recognition of this species.

INTRODUCTION

Typhonium is an old world genus native from India to Australia and northward into subtemperate areas of Eastern Asia (Nicolson and Sivadasan, 1981). *Typhonium* Scott (Araceae: Areae) is a genus containing about 69 species (Schott, 1832; Duthie 1929; Engler A, 1920; Airy and Wills, 1973; Nicolson and Sivadasan, 1981; Sriboonma and Iwatsuki, 1994; Hay, 1993-1997; Mayo and Boyce, 1997; Hetterscheid *et al.*, 2001, 2002; Dao and Heng, 2007; Chowdhery *et al.* 2009 and Govaerts *et al.* 2014), excluding *Sauromatum* Schott species which was removed from *Typhonium* by Hetterscheid and Boyce, (2000). The genus is represented by nine species and two varieties in India (Karthikeyan *et al.*, 1989) namely *Typhonium bulbiferum* Dalzell; *T. blumei* Nicolson; *T. diversifolium* Wall; *T. flagelliforme* (Lodd.) Blume; *T. gracile* (Roxb.) Schott; *T. inopinatum* Prain; *T. listeri* Prain; *T. roxburghii* Schott; *T. trilobatum* (L.) Schott and *T. khandwaense* Mujaffar & *et al.* conform it as a synonym for *T. inopinatum* Prain.

Only one species of *Typhonium* is reported for the Madhya Pradesh State flora as *T. trilobatum* (L.) Schott in the flora of Madhya Pradesh by N.P.

Singh & *et al.* (2001). *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. (Gadpayale & *et al.* 2015).

During Floristic exploration (2015-2017) in various parts of Madhya Pradesh, the author collected an interesting Specimen from two locality namely Ghagharla forest patches and Dhotarpath (Nepanagar tehsil). The flowering specimens of *Typhonium* were identified as *T. flafelliforme* (Lodd.) Blume, which has been included under 'spathulati group' By Hay A. (1993), and reported as a new addition to the flora of Madhya Pradesh State. The specimen is preserved in S.N. Govt. P.G. College, Khandwa Research Centre of Botany Department and living specimen in the Botanical garden of S. N. Govt. P.G. College, Khandwa, Madhya Pradesh (450 001)

Taxonomic and Photographic presentation of *Typhonium flagelliforme* (Lodd.) Blume

***Typhonium flagelliforme* (Lodd.) Blume**, Rumphia 1 (1837) 134; Nicolson & Sivadasan, Blumea 27(1981) 489, f. 2; Hay, Aroids of Papua



Vegetative morphology of *Typhonium flagilliforme* (Lodd.)
Blume habit with its Spadix,

Spadix with. Deeply ridged &
channeled appendix



Rootstock,



Keeled spathe base



Lower part of spadix

New Guniea (1990) 95.- *Arum flagelliforme* Lodd., Bot. Cab. 4 (1819) t. 396.- *Heterostalis flagelliformis* (Lodd.) Schott, Oesterr. Bot. Wochenbl. 7(1857) 261. - **Type:** Lodd., Bot.Cab. 4 (1819) t. 396!

Cormous herb forming small colonies by the emission of subterranean stolons; corm- 2 cm diam.; rooting above, roots 3-18 cm long, c. 1-2mm in diam; leaves 2-6, petiole thin, c. 2-4 mm in diam., 4-30 cm long, sheath to 10 cm, faintly mottled with white; elliptic to ovate with the base acute to auriculate to cordate to hastate, 8-25 cm long to 7.5 cm wide, the posterior lobes if present, spreading, up to 3 cm long; anterior costa raised abaxially, bearing 2 or 3 primary lateral veins on each side, diverging at an angle of 40°; peduncle slender, thin, 5-8 cm lifting the inflorescence away from the leaf bases; spathe base longitudinally keeled, greenish white, c. 1.5-4.0 cm long, limb narrowly lanceolate, spreading, recurved or coiled, greenish abaxially, white adaxially; spadix equal to the spathe, lowest c. 0.5 cm pistillate, the next c. 2 cm in sterile, bearing spreading spatulate darktipped sterile organs c. 0.6x0.2 cm in the lower half, ±narrowly pyramidal to filiform, c. 0.3 cm long in the upper half; the spadix then staminate for c. 0.5 cm, male flowers unistaminate, the stamens yellow with the connective beaked; appendix subsessile, to c. 14 cm long, yellowish deeply ridged and channeled, usually tapering from the base; berries light greenish, 2-3 seeded.

Flowering and fruiting: April- September.

Habitat: *T. flagelliforme* was found growing in moist shady places and open, wet, black soils.

Specimens examined: India, Madhya Pradesh, Burhanpur district, (Nepanagar tehsil)Ghagharla forest patches and Dhotarpeth, latitudes- 21° 5' – 22° 25' N and longitudes 75° 57' - 77° 13' E, 2-5 August 2017, SM-1330.

Distribution in India: - Bengal, Kerala, Maharashtra and Madhya Pradesh (in this publication).

Conservational status: Known now only from Burhanpur district for Madhya Pradesh state, India.

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REFERENCES

- Anand Kumar P Venu¹ and YV Rao, 2014.** Rediscovery of *Typhonium inopinatum* (Araceae) from India with notes on the identity of *T. khandwaense*. *Rheedea* Vol.24 (2): 120-123.
- Airy Shaw HK and Wills JC, 1973.** A Dictionary of flowering Plants ferns, Revised Eighth Edition, Cambridge.
- Chowdhery HJ, Giri GS & A Pramanik, 2009.** *Materials for the Flora of Arunachal Pradesh*. Vol. 3. Botanical Survey of India, Kolkata.
- Dao ZL, Chen ST, Heng JY and Heng Li, 2007.** *Typhonium baoshanense*. a new species of Araceae from western Yunnan, China *Acta phytotaxonomica Sinica*, 45(2):234-238.
- Duthie JF, 1929.** *Flora of the Upper Gangetic plain and of the adjacent Siwalik and sub-Himalayan tracts*. Vol. 3. part 3. Government of India, Central Publication Branch, Kolkata.
- Engler A, 1920.** Araceae-Aroideae und Araceae-Pistioideae. *Pflanzenr.* 73 (IV. 23F): W.Engelmann, Leipzig. 1-274.
- Gadpayale J.V. and Chaturvedi Alka A.2015.** *Typhonium inopinatum* Prain (Araceae: Areae) A New Report to the flora of Maharashtra state from Bhandara District, India **Bioscience Discovery** 6(2):89-92, July-2015 ISSN: 2231-024x(online) & ISSN-2229-3469 (print).
- Govaerts, R., Bogner, J., Boos, J., Boyce, P., Cosgriff, B., Croat, T., Goncalves, E., Grayum, M., Hay, A., Hettterscheid, W., Ittenbach, S., Landolt, E., Mayo, S., Murata, J., Nguyen, V.D., Sakuragui, C.M., Singh, Y., Thompson, S. & G. Zhu 2014.** *World Checklist of Araceae*. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; <http://apps.kew.org/wcsp/> Retrieved 15-10-2014.
- Hay A, 1993.** The genus *Typhonium* (Araceae: Areae) in Australasia, *Blumea* 37:345-376.
- Hay A, 1997.** Two new species and a new combination in Australian *Typhonium* (Araceae tribe Areae). *Edinburgh Journal of Botany*, 54:329-336.
- Hettercheid WLA and Boyce PC, 2000.** A reclassification of Schott and new species of *Typhonium* Schott (Araceae). *Aroideana* 23:48-55.
- Hettercheid WLA and Nguyen VD, 2001.** Three new species of *Typhonium* (Araceae) from Vietnam. *Aroideana* 24:24-29.

Hettercheid WLA, Sookchaloem D and Murata J, 2002. *Typhonium* (Araceae) of Thailand: New species and a revised Key. *Aroideana* **24**:33-55.

Karthikeyan S, Jain SK, Nayar MP & M Sanjappa, 1989. *Florae Indicae Enumeratio: Monocotyledonae*. Botanical Survey of India, Kolkata.

Mayo SJ, Bogner J and Boyce PJ, 1997. *The Genera of Araceae*. Royal Botanic Gardens, Kew.

Mujaffar S, Yasin CM, Moinuddin S & S Mustakim, 2013. *Typhonium khandwaense* (Araceae: Araceae), A new species from Madhya Pradesh, India. *Biosci. Disc.* **4**: 25-29.

Nicolson DH and Sivadasan M, 1981. Four frequently confused species of *Typhonium* Schott. (Araceae). *Blumea*, **27**:483 - 497.

Sriboonma, D, Murata J & Iwatsuki, K 1994. A revision of *Typhonium* (Araceae). *J. Fac. of Sci. Univ. Tokyo, Section-3, Botany*, **15**: 255-313.

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