

***Typhonium roxburghii* var. *longispathum* S. Nirola & A.P. Das, var. nov. (Araceae) from Darjeeling Himalaya in West Bengal, India**

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Abstract

Typhonium roxburghii var. *longispathum* S. Nirola & AP Das (Araceae), a new variety from Darjeeling part of the the Himalayas is described, differentiated and illustrated. The new variety differs from the type, *Typhonium roxburghii* Schott in morphological characters of leaves, bulbils, spathe blade and spadix.

Key words: *Typhonium roxburghii* var. *longispathum*, new variety, Darjeeling Himalaya

INTRODUCTION

Typhonium Schott is an important genus of Araceae, represented by 68 accepted species (www.theplantlist.org, Version 1.1) distributed in South, South-east and East Asia extending through the pacific islands to Australasia. However, Mabberly (2008) has mentioned 40 species under the genus (including *Sauromatum* Schott). On the other hand, so far, about 10 species has been recorded from India namely *Typhonium blumei* Nicolson; *T. bulbiferum* Dalzell; *T. diversifolium* Wallich; *T. flagelliforme* (Loddiges) Blume; *T. gracile* (Roxburgh) Schott; *T. inopinatum* Prain; *T. listeri* Prain; *T. roxburghii* Schott; *T. trilobatum* (Linnaeus) Schott & *T. khandwaense* Mujaffar, Yasin & Mustakim (Hooker 1893; Nicolson 1981; Karthikeyan *et al.* 1989; Mujaffar *et al.* 2013) of which about 4 species are from the Himalayan regions, though Hara (1971) has recorded only *T. diversifolium* from Eastern Himalaya. In 1994, Noltie recorded only two species (*T. diversifolium* & *T. trilobatum*) in the Flora of Bhutan (including Darjiling Hills, Tarai and Duars of West Bengal and Sikkim).

Some specimen of *Typhonium* in flowering stage were collected from the foothill regions at places like Rongtong and from areas above Sukna during different expeditions to explore the monocot flora of Darjeeling district. The specimens were quite similar to *Typhonium roxburghii* Schott but some characters did not match satisfactorily with the type and protologue. A number of differences in morphological characters were observed in shape and formation of lamina, formation of bulbils, length of peduncle, size and shape of spathe blade, structure of spadix etc. These specimens, hence, identified as a new variety of *T. roxburghii* Schott from Darjeeling Himalaya, which is described and illustrated herein.

Taxonomic treatment

Typhonium roxburghii Schott, Aroideae 1: 12. 1853. Hooker f., Fl. Brit. India 6: 510. 1893.

var. *longispathum* S. Nirola & A.P. Das, var. nov.

A small rhizomatous perennial herb. Rhizome tuberous, sub-globose. Leaves 3–7; petiole 10–25 cm, bulbils formed on petioles covering upper ¼th part of its length and extending upto the tip, elongated, black. Lamina variously shaped as entire-hastate to tri-lobed but never completely trifoliolate. Inflorescence appearing after leaves; peduncle 1–3 cm. Spathe: tube sub-globose to oblong-ovoid, 1–2.5 × 0.8–1.5 cm; blade linear-lanceolate, 10–16 cm × 3–5 mm, apex filiform, twisting to curled. Spadix subequaling spathe; female portion 3–5 mm with 3–4 rows of pale yellowish 1-loculed ovaries; sterile portion with single whorl of downward curved staminodes; staminodes 6–10 mm, slightly fimbriate apically; male portion 7–12 mm, yellow; appendix very long and filiform, 10–14 × 0.1–0.2 cm, pale white, lobed at base.



PLATE - I: **A.** *Typhonium roxburghii* var. *roxburghii*; **B.** *Typhonium roxburghii* var. *longispathum*: **1.** Spathe blade and spadix; **2.** Bulbils; **3.** Close-up view of inflorescence

Flowering & Fruiting: April – June

Exsiccatae: HOLOTYPE: Below Rongtong, 400 m, *S Nirola & AP Das 1237A*, dtd. 26.04. 2010 (CAL); ISOTYPE: *S Nirola & AP Das 1237B,C,D*, dtd. 26.04. 2010 (NBU).

Status: Rare.

Distribution: Foothill areas of Darjeeling district, West Bengal; ± 400 m; Endemic to Darjiling Hills.

Etymology: With reference to long and filiform spathe blade.

DISCUSSION

The differences between *Typhonium roxburghii* Schott var. *roxburghii* and *Typhonium roxburghii* var. *longispathum* S. Nirola & A.P. Das are displayed in the table below:

Characters	<i>Typhonium roxburghii</i> var. <i>roxburghii</i>	<i>Typhonium roxburghii</i> var. <i>longispathum</i>
Lamina	Lamina variously shaped as entire-hastate to tri-lobed and often completely trifoliate	Lamina variously shaped as entire-hastate to tri-lobed but never completely trifoliate
Bulbils	Bulbils develop at apex of petioles and often on petiolule, globose, brown	Bulbils develop along petioles formed above $\frac{3}{4}$ of its length below the apex, elongated and black
Peduncle	Peduncle 2 – 7 cm	Peduncle 1 – 3 cm
Spathe blade	Spathe blade \pm triangular to ovate-lanceolate, apex simply acute	Spathe blade linear-lanceolate, apex long filiform twisting to curly
Spadix	Sterile portion with 3–5 rows of curled staminodes; appendix conic-cylindric, 0.4 – 0.5 cm in diameter, dark purple or black, obliquely truncate at base	Sterile portion with single whorl of downward curved staminodes; appendix very long and filiform, 0.1 – 0.2 cm in diameter, pale white, lobed at base.

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