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Research article

OSBECKIA NAYARII GIRI (MELASTOMATACEAE) A NEW DISTRIBUTIONAL RECORD FOR SOUTH INDIA

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ABSTRACT: *Osbeckia nayarii* Giri (Melastomataceae) earlier known from North Eastern Himalaya of India, and Bangladesh is recorded for the first time from southern Western Ghats. The present collection represent a disjunct distribution of this species in dissimilar geographic areas deserves scientific scrutiny. Detailed descriptions and photographs of the species are provided for easy identification of the taxon. **Key words:** *Osbeckia, New* record, South India.

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INTRODUCTION

The genus *Osbeckia*. L. comprises about 50 species worldwide [1]. It is distributed from tropical Africa, south and south-east Asia to Northern Australia [2]. Of the 50 species, 31 are found in Asia [2]. In India, the genus is represented by 26 species [3] and Gamble [4] reported 20 species from South India. In India the maximum diversity of the genus is noticed in the Western Ghats followed by north eastern parts of India.

As part of taxonomic revision of the genus *Osbeckia* L. in India, live plants were collected and examined from cited locations and the herbarium specimens at various Indian herbaria such as ASSAM, BSI, BSD, CALI, CAL, DD, DEV, JCB, PBL, KFRI, MH, RHT, and TBGT were consulted. Images of type specimens were procured from virtual data bases of K, MEL, US, BM, BR, C, G and L to confirm the identity. All the 12 species and 4 varieties including *O. nayarii* Giri were collected and critically examined. Giri [5] described the species *O. nayarii* based on the specimens collected from Khasia hills of Meghalaya by C. B. Clarke. Authors had made intensive field explorations in North Eastern India including the type locality and collected live specimens of *O. nayarii*.

During our recent exploration tour in Tamil Nadu, the first author collected similar specimens from Valpari near Sholayar dam. On critical examination, with the protologue and the holotype deposited at CAL; it was identified as *Osbeckia nayarii* Giri, hitherto known only from North Eastern Himalayas of India. Therefore, the present collection is a new distributional record for South India. A detailed description and relevant photographs are provided for easy identification.

TAXONOMIC TREATMENTS

Osbeckia nayarii Giri, J. Econ. Tax. Bot. 4(2): 609. 1983; Giri & S.K. Mandal, J. Bombay Nat. Hist. Soc. 98(1): 151. 2001

Holotype: INDIA. Meghalaya, Khasia hills, 600 m. 14.09.1886, C.B Clarke 44776 A (CAL!).

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Erect perennial shrub, 1-1.5 m high, glabrous throughout. Stem and branches strongly quadrangular, distinctly winged at angles. Leaves simple, opposite, petiolate; petiole 5-10 mm long, reddish brown; lamina $10-15 \times 3-6$ cm, elliptic to lanceolate, base and apex acute, 5-7 nerved. Inflorescence a terminal lax panicle, 5-12 flowered, Flowers actinomorphic, tetramerous, pedicellate and bracteate. Bract $10-15 \times 2-6$ mm, ovate, caducous; Pedicel 3-7mm. Hypanthium $12-14 \times 4$ -6.5 mm, urceolate, with a distinct neck. Sepals 4, $10-13 \times 2.5-3.5$ mm, ovate with a prominent midrib, margin ciliate, caducous. Intersepalar emergences absent. Petals 4, $16-20 \times 10-14$ mm, ovate, pink- purple. Stamens 8, filaments 2-4 cm long, anthers 2-4.5 mm long twisted, pore apical, connective prolonged in to a small indistinctly lobed collar. Ovary 12-14 mm long, urceolate, 4-locular, united with hypanthium, anther pocket and crown covered with appressed hairs; style 2.5-4 mm long, curved; stigma slightly swollen. Capsule 4 - 5.5 mm long, enclosed by an urceolate calyx tube with a long neck (hypanthium). Seeds 0.1-0.2mm long, minute, curved (Fig. 1).

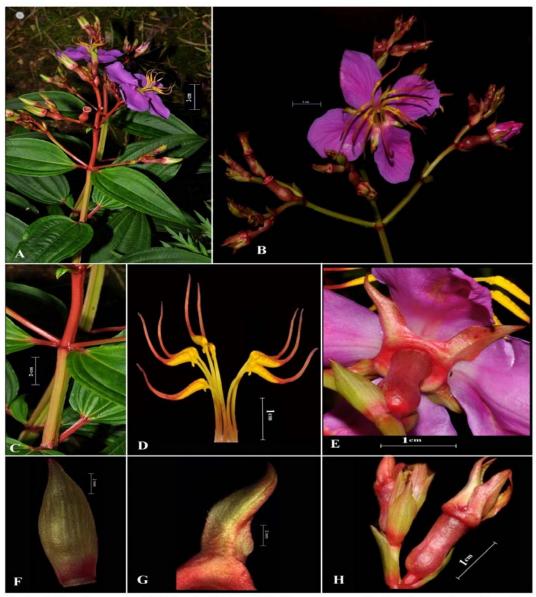


Fig.1. Osbeckia nayarii Giri A. Twig; B. Inflorescence; C. Quadrangular winged stem; D.Stamens; E. Hypanthium & Sepal; F. Bract; G. Sepal; H. Hypanthium. (from prashob P & Sibichen M.Thomas 6018).

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Habitat: Occurs in grasslands, (1000-2000m above sea level)

Flowering and fruiting: July- November.

Distribution: India, Bangladesh, China and Myanmar

Specimens examined: INDIA, **Assam**, Golpara, 1914, *Upendranath Kanjilal* 6914(CAL); **Meghalaya**, East Khasia hills district, Pynursla, 1755 m, 15.09.2015, *Prashob & Sibichen* 6112 (DEV), Ri-Bhoi District, Nongpoh, 987 m, 06.08.2014, *Manudev K.M.*, 57412 (CALI); **Tamilnadu**, Coimbatore, Valpari Sholayar dam, 1225 m, 03.10.2015, *Prashob & Sibichen* 6018 (DEV); **Kerala**, Kozhikode, St. Joseph's College Botanical garden (cultivated) 55 m, 06.10.2015, *Sibichen & Prashob* 1620 (DEV).

Note: Osbeckia nayarii Giri is distinct from all other species of Osbeckia due to quadrangular stem winged at angles, glabrous throughout and absence of intersepalar emergence.

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REFERENCES

- [1]. Mabberley, D. J. 2008. Mabberley's *Plant- Book. A Portable dictionary of Plants: their classification and uses.* Third edition. Cambridge University Press, Cambridge.
- [2]. Hansen, C. 1977. The Asiatic species of Osbeckia (Melastomataceae). Ginkgoana 4: 1-150.
- [3]. Hooker, J. D. 1879. Flora of British India. Vol. 2. L. Reev & Co. Ltd., London. pp. 512-521.
- [4]. Gamble, J. S. 1931. Flora of the Presidency of Madras. Vol. 1. Adlard & Sonws Ltd. pp.491-494.
- [5]. Giri, G.S. 1983. A new species of *osbeckia* L. (Melastomataceae) from India. J. Econ. Tax. Bot. 4. 609-611.

