

New distributional record of the endemic species *Pavetta travancorica* (Rubiaceae) from Andhra Pradesh, India

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स्थानिक जाति पावेटा त्रावनकोरिका (रुबिऐसी) का भारत के आंध्र प्रदेश राज्य से एक नवीन वितरणपरक अभिलेख

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सारांश

पावेटा त्रावनकोरिका ब्रेमेक जाति का आंध्र प्रदेश राज्य के सेशाचलम जैव आरक्षित क्षेत्र से नवीन वितरण परक अभिलेख दर्ज किया गया है।

ABSTRACT

Pavetta travancorica Bremek. is reported here as a new distributional record for Andhra Pradesh from Seshachalam Biosphere Reserve.

Keywords: Andhra Pradesh, Biosphere Reserve, Eastern Ghats, *Pavetta*, Seshachalam.

INTRODUCTION

The genus *Pavetta* L. has about 300 species distributed in the tropics of the Old World (Mabberley, 2008). Bremekamp (1934) recognised 42 species from the Indian subcontinent and most of the species were established based on the hairs on stem, shape and size of leaves, and arrangements of bacterial nodules on the leaves. Rout and Deb (1999) summarily rejected the concept and recognised only 25 species from Indian subcontinent in their revisionary studies. Singh & al. (2015) reported 16 species and 3 varieties of *Pavetta* as endemic to India, of

which 15 species and 3 varieties are narrowly endemic to Western Ghats and one species to Eastern Ghats of Andhra Pradesh. At present, the genus is represented by 4 species viz., *Pavetta indica* L., *P. breviflora* DC., *P. madrassica* Bremek. and *P. tomentosa* Roxb. ex Sm. in Andhra Pradesh (Pullaiah & Kuruppusamy, 2018).

While working on the project 'Non Detrimental Findings (NDF) on Red Sander tree (*Pterocarpus santalinus* L.f.) in India', the first author collected a *Pavetta* species in flowers from Papanasanam beat of Chittoor district, Seshachalam Biosphere Reserve, Andhra Pradesh, which was later identified as *Pavetta*

travancorica Bremek. Scrutiny of literatures revealed that this species has been so far reported from Karnataka, Kerala, Tamil Nadu (Rout & Deb, 1999), and not from Andhra Pradesh (Pullaiah & Kuruppusamy, 2018). Hence, its extended distribution has been confirmed in the state of Andhra Pradesh. A detailed description and photo plate are provided to facilitate identification.

TAXONOMIC TREATMENT

Pavetta travancorica Bremek. in Repert. Spec. Nov. Regni Veg. 37: 81. 1934; Ahmed. & M.P.Nayar, End. Pl.

Ind. Reg. 1: 164. 1987; Deb & Rout in J. Bombay Nat. Hist. Soc. 89(3): 349. 1992 & Bull. Bot. Surv. India 41 (1-4): 161. 1999; Singh & al., End. Vasc. Pl. India 236. 2015. *Pavetta concanica* Bremek. in Repert. Spec. Nov. Regni Veg. 37: 81. 1934. *Pavetta laeta* Bremek. in Repert. Spec. Nov. Regni Veg. 37: 82. 1934. (Fig. 1).

Shrubs up to 1.5 m high; stem stout, erect, branched; branches terete or sub-quadrangular, pubescent when young, becoming corky in age. Leaves petiolate, 5.5-15 × 1.9-5 cm, elliptic-lanceolate, attenuate at base, entire along margin, acute-acuminate at apex, subcoriaceous, glabrous or puberulent on upper surface, hairy



Fig. 1. *Pavetta travancorica* Bremek. A. Habit: B. Inflorescence.

and with many bacterial leafgalls in some leaves and absent in others; leaf galls present on secondary and finer nerves; lateral nerves 10-13 pairs, alternate or sub-opposite, more prominent beneath; stipules interpetiolar, 4-7 × 3-5 mm, narrowly triangular, membranous, scarious, acute at apex, glabrous; petioles 1.2-3 cm, hairy. Inflorescence axillary, peduncled, trichotomously branched, loose corymbose cymes, 6-9 cm long; peduncle up to 5 cm long, slender, hairy; primary branches 3-5 cm long; secondary branches 0.5-1.5 cm long; tertiary braches 0.3-0.8 cm long; bracts traingular, connate at base, 4 × 2 mm, membranous, hairy on upper surface, pilose at base and glabrous towards apex on inner surface. Flowers white, 30-47 on slender pedicels; pedicels 2-7 mm long, hairy. Hypanthium 1 × 0.8 mm, sub-globose, densely hairy; calyx tube 0.5 × 1-1.5 mm, broader above, densely hairy outside; glabrous within; teeth 0.1-0.2 × 0.1 mm, dentate or triangular, acute at apex, pubescent without; glabrous within. Corolla tube 7-16 × 0.5-0.8 mm, cylindrical, glabrous on upper surface, sparsely hairy on above 2/3 part on lower surface; lobes 4, oblong or oblong-obovate, 5-6 × 1.5-1.8 mm, obtuse at apex, glabrous. Stamens 4, attached to the throat of the corolla tube, alternate to the petal lobes; filaments c. 0.8-1.2 mm long; anthers 4-5 × 0.4 mm, acute at apex. Gynoecium 3-3.1 cm long; ovary 1 × 0.8 mm, glabrous; style c. 2.7 cm long, slender long exerted, glabrous, slightly pubescent at apex; stigma c. 3 mm, pubescent. Fruits not seen.

Flowering and fruiting: February-June & March - November.

Distribution: Karnataka, Tamil Nadu and Kerala and now from Andhra Pradesh.

Habitat: Rare along the waterfalls and shady habitats of the moist deciduous forest.

Specimen examined: India, Andhra Pradesh, Seshachalam Biosphere Reserve, Chittoor district,

Papanasanam beat, 13.8109419 N, 79.217735 E, 831 m.s.l., 6.5.2018, J. Swamy 8842 (BSID).

Notes: Sivadasan and N. Mohanan (1999) described *Pavetta bourdillonii* from the Agsthyamalai Hills of Thiruvananthapuram District, Kerala. While revising the genus for Indian subcontinent, Rout & Deb (1999) merged *P. bourdillonii* under *P. travancorica*. Later, *P. bourdillonii* was reinstated as a separate species by Kumar & N. Mohanan (2015) based on the leaf shape, number of flowers per inflorescences, flower and fruit size etc.

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