

## *Pavetta bourdillonii* (Rubiaceae), a new species from India

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**Abstract.** *Pavetta bourdillonii* Sivad. & N. Mohanan, a new species of Rubiaceae from India, is described and illustrated. This new species is allied to *P. concanica* Bremek., *P. laeta* Bremek. and *P. travancorica* Bremek.

**Keywords:** India; Ixoroideae; Kerala; *Pavetta bourdillonii*; Pavetteae; Rubiaceae.

### Introduction

The genus *Pavetta* L. belongs to the tribe Pavetteae of the subfamily Ixoroideae of Rubiaceae. It comprises about 400 species of shrubs or small trees in tropical and subtropical regions of the Old World (Mabberley, 1987). In India the genus is represented by about 30 species (Santapau and Henry, 1972).

A specimen collected recently from the Agasthyamala Hills on the southern end of Western Ghats, in the Thiruvananthapuram District of Kerala State, clearly differed from the hitherto described species of *Pavetta* (Hooker, 1880; Gamble, 1921; Bremekamp, 1934; Fischer, 1936). A single herbarium specimen (MH Accession number 26091) kept as “unidentified” *Pavetta* in Madras Herbarium (MH), collected by T.F. Bourdillon from “Travancore boundary, 2000 ft” (without collection number or date) and erroneously identified earlier as *Ixora nigricans* is an exact match of the present taxon.

***Pavetta bourdillonii*** Sivad. et N. Mohanan, sp. nov. —

TYPE: India, Kerala State, Thiruvananthapuram District, Agasthyamala Hills, Attayar, 700 m, 27 Jun 1994, Mohanan TBG & RI 12442 (holotype: K; isotypes: CAL, MH, TBGT). Figure 1

Differt a *Pavetta concanica*, *P. laeta* et *P. travancorica* Bremekampii habitu arboreo, nervis lateralibus foliorum 4–6, utrinque inflorescentia simplici 3–4 florum in cymis, tubo corollae 1.8–2 cm longo.

Small trees, 4–8 m high. Leaves opposite, simple, entire, petiolate; petiole 0.4–0.6 cm long; leaf blade elongate obovate, acuminate, base cuneate, 6–12 × 2–3.5 cm; lateral veins 4–6 pairs; scattered nodules of bacterial colonies present in lamina. Stipules interpetiolar, 1.5–2 × 3–3.5 mm, broadly triangular-ovate, broader than long,

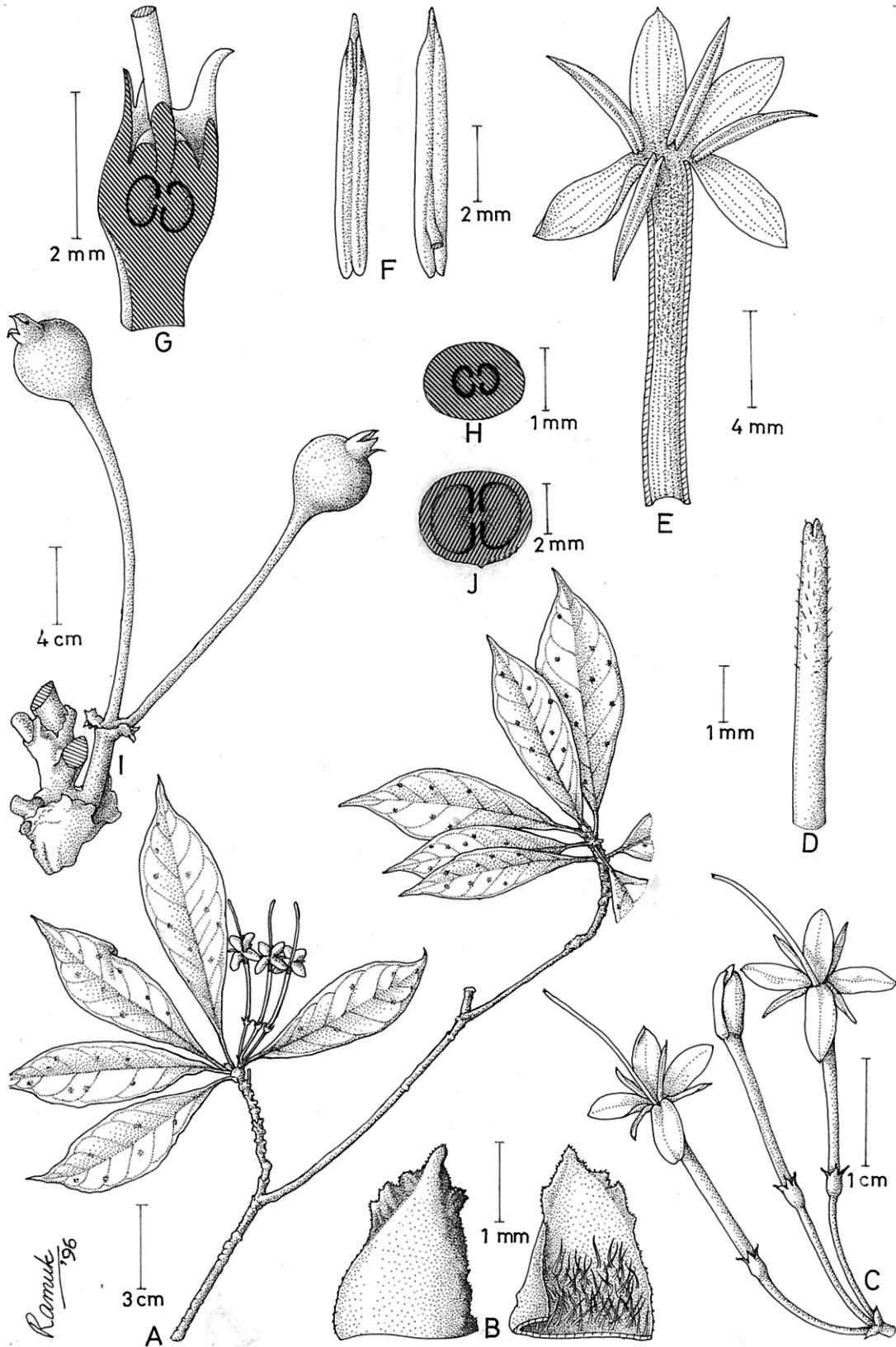
partially connate below to form a tube, abaxially keeled, tip acute, margins membranous, wavy and minutely erose especially at top, hairy on inner surface towards the base. Inflorescences axillary, 3(4)-flowered simple cymes; peduncle very short, 0.1–0.15 cm long, 3-flowered; in cymes with 4 flowers the central pedicel forked just above the peduncle tip; bracts 2. Pedicel slender, 1–1.5 cm long. Calyx tube ca. 0.1 cm long, lobes triangular, 0.75–1.25 mm long. Corolla white, tube 1.8–2 cm long, 0.1–0.15 cm diam., slightly widening distally, villous within except at the base, lobes 4, each 0.8–1 × 0.25–0.3 cm, oblong to elliptic, acute at apex. Stamens 4, attached at throat of the corolla tube; anthers dorsifixed, 0.6–0.7 cm long, linear, divergent from base, connective slightly produced above, filaments very short, ca. 0.5 mm long. Ovary ca. 0.1 cm long, 0.05 cm wide, crowned by an annular disc, 2-celled, ovule 1 per cell, attached on axile placenta; style slender, 3–3.5 cm long, exserted to ca. 1.5 cm; stigma 0.5–0.6 cm long, linear, sparsely pubescent all over, 2-fid at extreme tip. Fruit 0.3–0.4 × 0.2–0.25 cm, ovoid, smooth, calyx tube persistent at top; peduncle and pedicels much elongated in infructescence. Seeds 1–2, hemispheric to subglobose, 0.2–0.25 cm in diam.

*Additional specimens examined.* **INDIA.** Kerala State, Thiruvananthapuram District, Agasthyamala Hills, Attayar, alt. 700–750 m, 14 May 1985, Mohanan TBG & RI 966 (TBGT); *ibid.*, 19 May 1991, Mohanan TBG & RI 10821 (TBGT); *ibid.*, 16 Jul 1994, Mohanan TBG & RI 11483 (TBGT); “Travancore boundary, 2000 ft”, Bourdillon *s.n.* Acc. No. 26091 (MH).

*Phenology.* Flowering commences during May, and mature flowers are seen during June. Fruits are seen during July.

*Etymology.* The specific epithet is in honour of T.F. Bourdillon who made the first collection of the taxon about 100 years ago. Bourdillon was a forest officer of the erstwhile Travancore and author of *The Forest Trees of Travancore* (1908).

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**Figure 1.** *Pavetta bourdillonii* Sivad. et N. Mohanan. A, Habit; B, Stipules, abaxial and adaxial views; C, Inflorescence; D, Stylar tip; E, Corolla, split open; F, Stamens, dorsal and ventral views; G, Ovary, longitudinal section; H, Ovary, cross section; I, Inflorescence; J, Fruit, cross section.

*Distribution.* Known only from the type locality near Attayar, in the Agasthyamala Hills at 700–750 m elevation, although the specific locality of Bourdillon's collection is unclear. Usually seen as small evergreen understory trees among the evergreen forests that line the river Attayar.

*Relationships.* This new species has very hard stem and branches. The growth pattern and branching are peculiar with the lateral branches growing horizontal to the ground. The internodes are intermittently longer and shorter, representing the difference in growth rate during monsoon and summer seasons, respectively. *Pavetta concanica* Bremek., *P. laeta* Bremek., and *P. travancorica* Bremek. (Bremekamp, 1934) are the three earlier species described from India with axillary inflorescences. The new species differs from these three in being arborescent, as opposed to suffrutescent, and having simple 3(4)-flowered cymose inflorescence, as opposed to the many-flowered corymbose inflorescences of the other three species. Also, the new species differs from the previous three in the number of lateral veins and in the length of the corolla tube. *Pavetta bourdillonii* has only 4–6 pairs of lateral veins as opposed to 10–12 pairs in *P. concanica* and *P. travancorica* and 6–9 pairs in *P. laeta*. The corolla tube in *P. bourdillonii* is comparatively (1.8–2 cm) long, while in *P. laeta* and *P. travancorica* it is 0.65–0.75 cm long and in *P. concanica* it is only 1.25–1.5 cm long.

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