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# *Ceropegia bhatii*, a new species of Apocynaceae: Ceropegieae from Karnataka, India

S. R. Yadav<sup>1</sup> & S. M. Shendage<sup>1</sup>

**Summary.** *Ceropegia bhatii* S. R. Yadav & Shendage, discovered from Malebennur Ghat in Davangere district of Karnataka State is described and illustrated. It is similar to *Ceropegia noorjahaniae* M. A. Ansari but is distinct in its twining habit, two-flowered cyme, slightly inflated corolla tube and corolla lobe margins that are not recurved.

**Key Words.** Apocynaceae, *Ceropegia bhatii*, Ceropegieae, India, Karnataka.

## Introduction

The genus *Ceropegia* L. (Apocynaceae) is represented in India by about 49 taxa, including four varieties. Western Ghats alone harbour about 39 species of the genus of which 29 are endemic to the region. Most of them are narrow endemics and some are on the verge of extinction. An interesting new species of *Ceropegia* collected from Malebennur Ghat in September 2008, is described and illustrated below.

***Ceropegia bhatii* S. R. Yadav & Shendage sp. nov.** *Ceropegiae noorjahaniae* similis, habitu volubili, cyma biflora (contra habitum erectum, cymam trifloram) differt. Typus: India, Karnataka, Davangere distr., Malebennur Ghat (14°18'40.5"N, 75°43'30.7"E) 15 Sept. 2008, *Shendage* 2550 (holotypus CAL; isotypi BSI, Shivaji University Herbarium).

<http://www.ipni.org/urn:lsid:ipni.org:names:77104380-1>

Perennial twining herbs. Rootstock tuberous; tubers 2 – 2.5 cm in diam.; roots few, fibrous. Stem solitary, cylindrical, twining, unbranched, up to 1 m in length, ciliate below, glabrous above, 1 – 2 mm in diam. Leaves simple, decussate, petiolate; petiole 0.5 – 0.8 cm long; lamina linear to linear-lanceolate, 4.5 – 9 × 0.4 – 1.5 cm, acuminate, tapering at base, scabrous, sparsely hairy above, glabrous below, margin ciliate. Cymes axillary or extra axillary, two flowered; peduncles 0.5 – 1 cm long, filiform, glabrous; pedicel 6 – 8 × 0.5 – 0.8 mm, glabrous; bract solitary, c. 1 – 3 × 0.2 – 0.5 mm, linear, acuminate, glabrous. Sepals 3 – 5 × 0.6 – 0.9 mm, linear, acuminate, glabrous. Corolla 3 – 3.8 cm long, greenish yellow; corolla tube 1.5 – 2 cm long, slightly dilated at the base, glabrous, striated with purplish brown lines on the upper half inside, the lower inflated part blotched inside; corolla

lobes 1.3 – 1.8 cm long, linear oblong with acute apex, greenish, glabrous, connate at tip forming an ovoid head. Outer corona of five deeply emarginate purple lobes, cupular, ciliate along margins; inner corona of five linear, purple lobes, usually divergent, up to 3 mm long. Pollen masses yellow, attached to the brown pollen carriers by short caudicles. Pollinarium 0.3 × 0.15 mm. Follicles in pair, up to 8 × 0.3 cm, straight, erect, tapering at both ends, glabrous. Seeds c. 4 × 1.5 mm, ovate, oblong; coma 0.8 – 1.4 cm long, white, silky. Figs 1, 2.

**DISTRIBUTION.** India, Malebennur Ghat of Davangere distr., Karnataka State.

**SPECIMENS EXAMINED.** INDIA. Karnataka: Davangere distr., Malebennur Ghat (14°18'40.5"N, 75°43'30.7"E) 15 Sept. 2008, *Shendage* 2550 (holotype CAL; isotypes BSI, Shivaji University Herbarium) & *Shendage* 2551 (Shivaji University Herbarium).

**HABITAT.** In open grasslands with scattered shrubs; c. 600 – 625 m. Associated and typical members of the vegetation include *Anogeissus latifolia* (Roxb. ex DC.) Wall. ex Guill. & Perr., *Dolichandrone spathacea*, (L. f.) K. Schum. *Wrightia tinctoria*, R. Br., *Cymbopogon caesius* (Nees) Stapf and *Tylophora fasciculata* Buch.-Ham.

**CONSERVATION STATUS.** As the species is restricted to 5 km<sup>2</sup> area, and only 35 individuals have so far been located, we consider it Critically Endangered (CR). However, further work will be needed to establish a reliable conservation assessment.

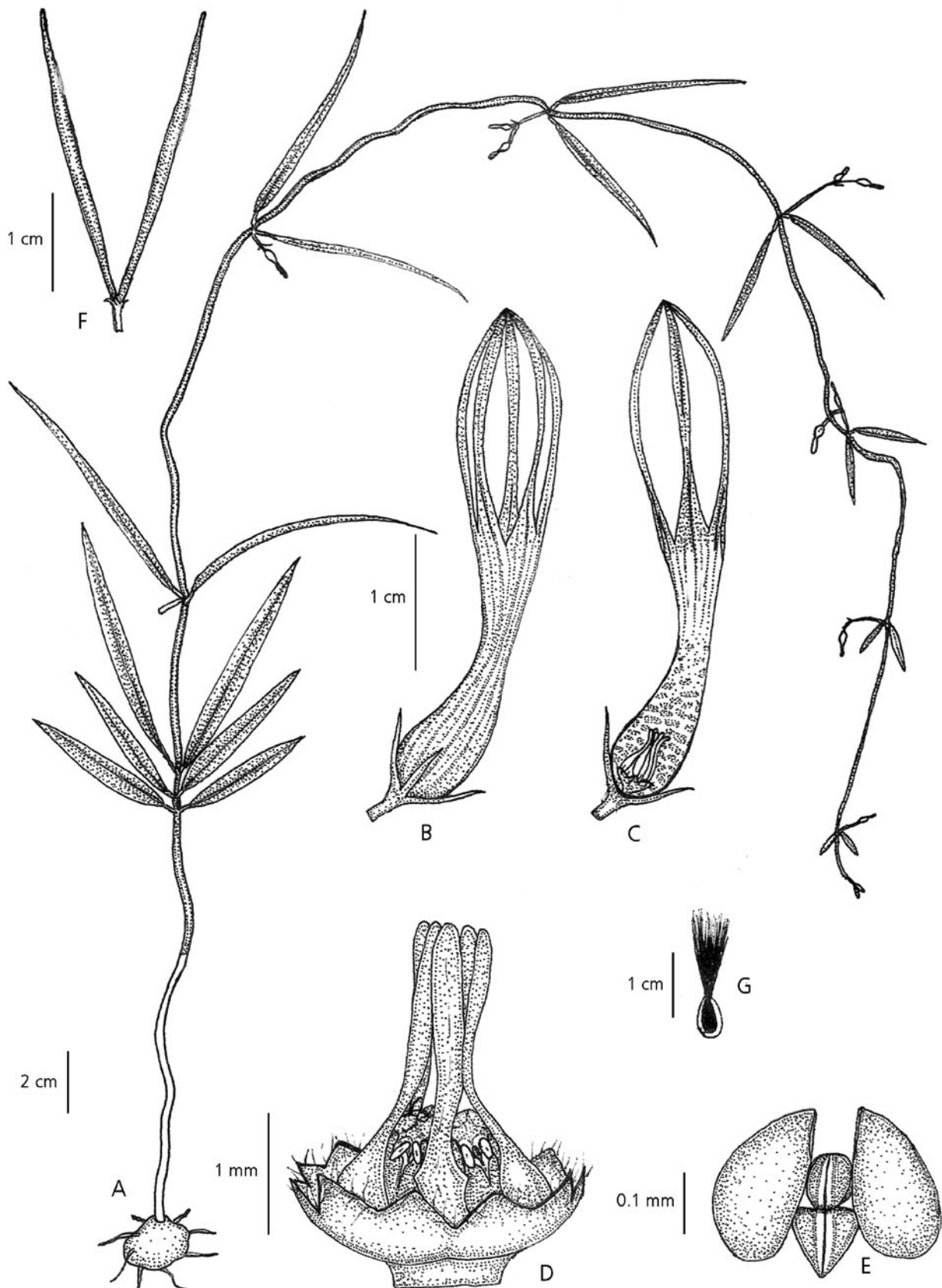
**PHENOLOGY.** Flowering and fruiting August – November.

**ETYMOLOGY.** The species is named after Prof. K. Gopalakrishna Bhat, Department of Botany, Poornaprajna College, Udupi for his contributions in the field of taxonomy and floristics.

**NOTES.** *Ceropegia bhatii* is similar to *C. noorjahaniae* M. A. Ansari but differs in its twining habit and two-flowered cyme (as against erect habit and three-

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**Fig. 1.** *Ceropogia bhatii*. A habit; B flower; C dissected flower; D corona; E pollinarium; F follicle; G seed. From Shendage 2550 (holotype CAL). DRAWN BY SHANKAR MALOJI SHENDAGE.



**Fig. 2.** A *Ceropegia bhatii* flower; B *C. noorjahaniae* flower; C cut open flowers of *C. bhatii* (left) and *C. noorjahaniae* (right) showing details of inner side of corolla tube; D cut open flowers of *C. bhatii* (left) and *C. noorjahaniae* (right) showing details of corona; E *C. bhatii* pollinarium; F. *C. bhatii* follicle. PHOTOGRAPHS BY SHRIRANG RAMCHANDRA YADAV.

flowered cyme in *C. noorjahaniae*). Also, the corolla tube in *C. bhatii* is only slightly inflated whereas in *C. noorjahaniae* it is conspicuously inflated to more than twice as wide as in the uninflated part. The margins of the corolla lobe bases in the *C. bhatii* are not recurved while in *C. noorjahaniae* they are strongly recurved.

Series *Attenuatae* of sect. *Tilonis* is currently represented by nine species and all are endemic to Peninsular India. *Ceropegia bhatii* is closely allied to *C. noorjahaniae* and differs from all other species of the series *Attenuatae* viz. *C. anantii* S. R. Yadav *et al.*, *C. anjanerica* Malpure *et al.*, *C. attenuata* Hook., *C. fimbriifera* Bedd., *C. mahabalei*

Hemadri & Ansari, *C. mohanramii* S. R. Yadav *et al.*, *C. noorjahaniae* M. A. Ansari and *C. spiralis* Wight in its climbing habit.

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