



Parthenocissus renukae, a new species of Vitaceae from South India

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ABSTRACT: A new species of Vitaceae from Kerala, India, *Parthenocissus renukae* Anto & Pradeep is described and illustrated. The species resembles *P. semicordata* Planch. and *Cissus aristata* Blume in certain morphological characters. It differs from *P. semicordata* in having simple leaves clothed with T-shaped hairs on its abaxial surface, shorter (upto 8cm) petioles, 8-branched tendrils, umbellate inflorescences and tomentose petals. It also differs from *C. aristata* in having pads at tendril tips, 8-branched tendrils and T-shaped hairs on the abaxial leaf surface. The species is known from the type locality, Mangad and Peruvanmala in Thrissur district of Kerala.

KEY WORDS: *Cissus*, India, Kerala, New species, *Parthenocissus*, Vitaceae.

INTRODUCTION

The genus *Parthenocissus* Planch. Currently includes 15 species, occurring in tropical and temperate regions of eastern Asia and North America. It shows disjunct distribution with majority of species occurring in Asia and a few in North and Central America (Trias-Blasi *et al.*, 2017) In India, the genus is represented by two species, *P. semicordata* (Wall.) Planch. and *P. thomsonii* (M. Lawson) P. Singh & B.V. Shetty of which a variety [var. *roylei* (King ex R. Parker) Nazim. & Qaiser] of the former is known to occur in Kerala (Singh & Shetty, 2000). Gamble (1918) treated only one species, *P. neilgherriensis* (Wight) Planch. in his *Flora of the Presidency of Madras* which is later found to be conspecific with *P. semicordata* (Wall.) Planch. var. *roylei* (King ex R. Parker) Nazim. & Qaiser (Shetty & Singh, 2005).

While conducting floristic exploration in Thrissur district of Kerala in South India, the authors collected an interesting specimen of *Parthenocissus* from the rocky slope near Mangad. After critical studies it is revealed to be a hitherto undescribed taxon and hence it is described and illustrated here.

TAXONOMIC TREATMENT

Parthenocissus renukae Anto & Pradeep, *sp. nov.*

Figs. 1 & 2

Type: INDIA. Kerala: Thrissur, Mangad, 10°42'30" N, 76°11'43"E, 150 m, 1 April 2016, Anto P.V. 125 (holotype: CALI!, isotype, MH!, CAL!, BLAT!).

The new species differs from *P. semicordata* in having simple leaves clothed with T-shaped hairs on its abaxial surface, shorter (upto 8cm) petioles, 8-branched tendrils, umbellate inflorescences, and tomentose petals.

It also differs from *C. aristata* in having pads at tendril tips, 8-branched tendrils and T-shaped hairs on the abaxial leaf surface.

Woody climber, 50 m height, stems and branches nodose, lenticelled. Young branches and tendrils, brownish-rose, soft hairy. Tendrils leaf-opposed, 8-branched, tips of tendrils modified to attaching pads. Leaf blades deeply cordate bristle serrate, leathery, and ferruginous when young, 5-ribbed, acuminate, 9–18 × 9–18 cm, lateral veins 3–5 pairs. Petiole up to 8 cm long, reddish brown at tips-; stipules oblong hairy, 2 at base, internodes 11 cm long. Inflorescence leaf-opposed, short, branched, hairy, umbellate. Flowers drooping, regular, 4-5-merous, disc yellow, prominent, pedicellate-; pedicels 0.5 cm long; calyx cupulate; 4 or 5 sublobed below the disc, 0.12 cm. Petals 4 or 5, 2.5 × 2mm, hairy, cauducous, reddish, tip yellowish red, hooded tip 0.25 cm long, soft yellowish red inside. Hairs drooping tomentous, T-shaped, one side flat. Stamens 4 or 5, 2.5mm long, antipetalous; anthers 0.8 × 0.8 mm, ditheous, yellowish, attached to the base of the disc; filaments subulate, 2mm long Disc yellowish, 4 or 5 lobed, densely pubescent with soft white hairs. Ovary ovoid, sunk in the disc; style short, 0.8 mm long, thick, stigma, capitate. Fruits and seeds not seen.

Phenology: April–May.

Habitat and distribution: *Parthenocissus renukae* is found growing alongwith *Cissus heymana* Steud. and *C. repanda* Vahl. It is known from the type locality, Mangad and Peruvanmala in Thrissur District of Kerala (Fig.3). It usually spread on rocks, grasslands and climb on large trees. It may badly affect the supporting tree by completely covering its canopy finally leading to the death of host tree. The area of occupancy of this taxon is limited to 50 m² in moist deciduous forest and at low elevation (150 m) grass lands. The number of individuals

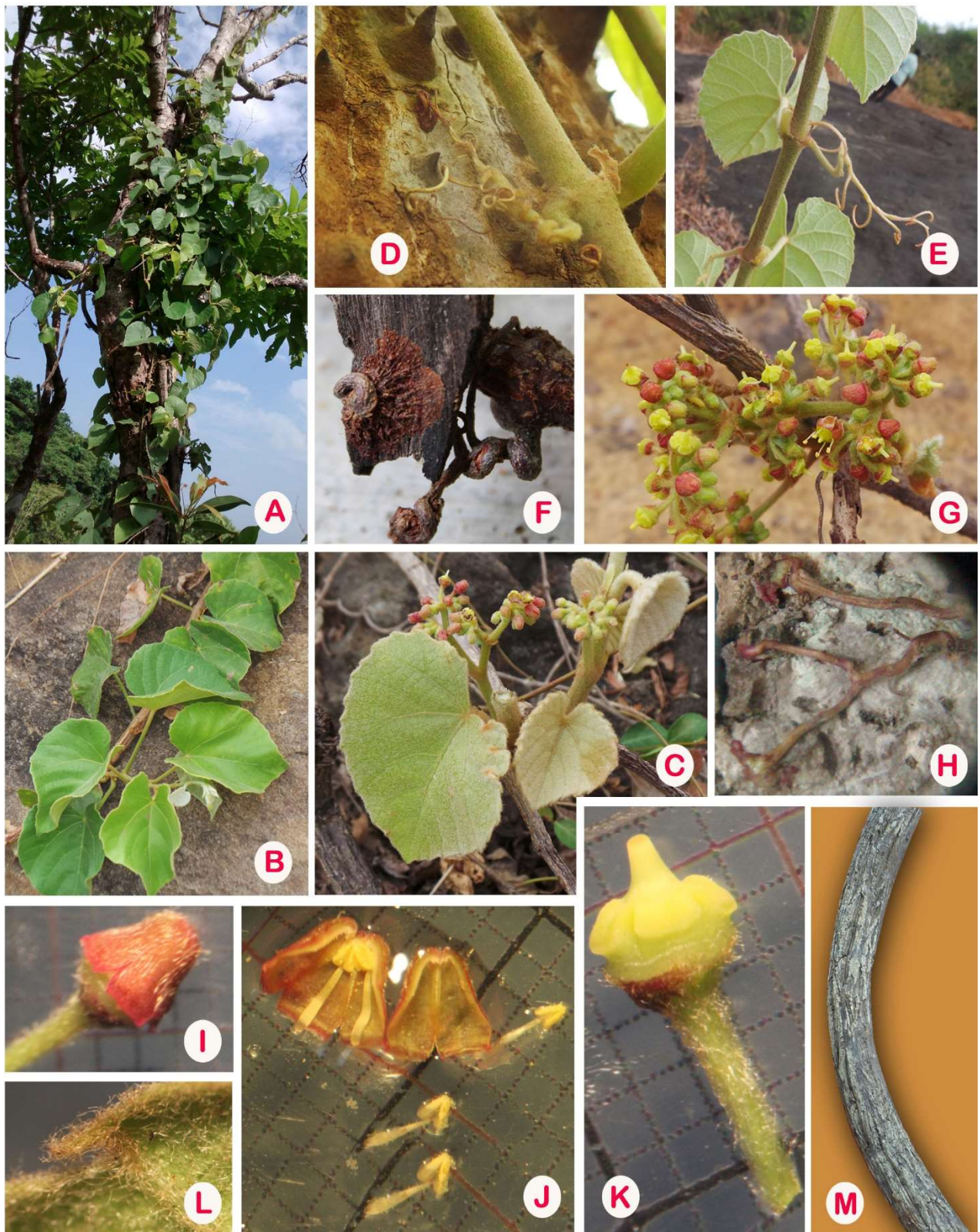


Fig. 1. *Parthenocissus renukae* A. Habit, B. Branch enlarged, C. Flowering twig, D. Tendril with pad, E. Young tendril, F. Mature tendril pad, G. Inflorescence with 5+4 merous flowers, H. Tendril pad enlarged, I. Flower bud, J. Flower dissected, K. Gynoecium, L. Aristate nature, M. Mature stem.

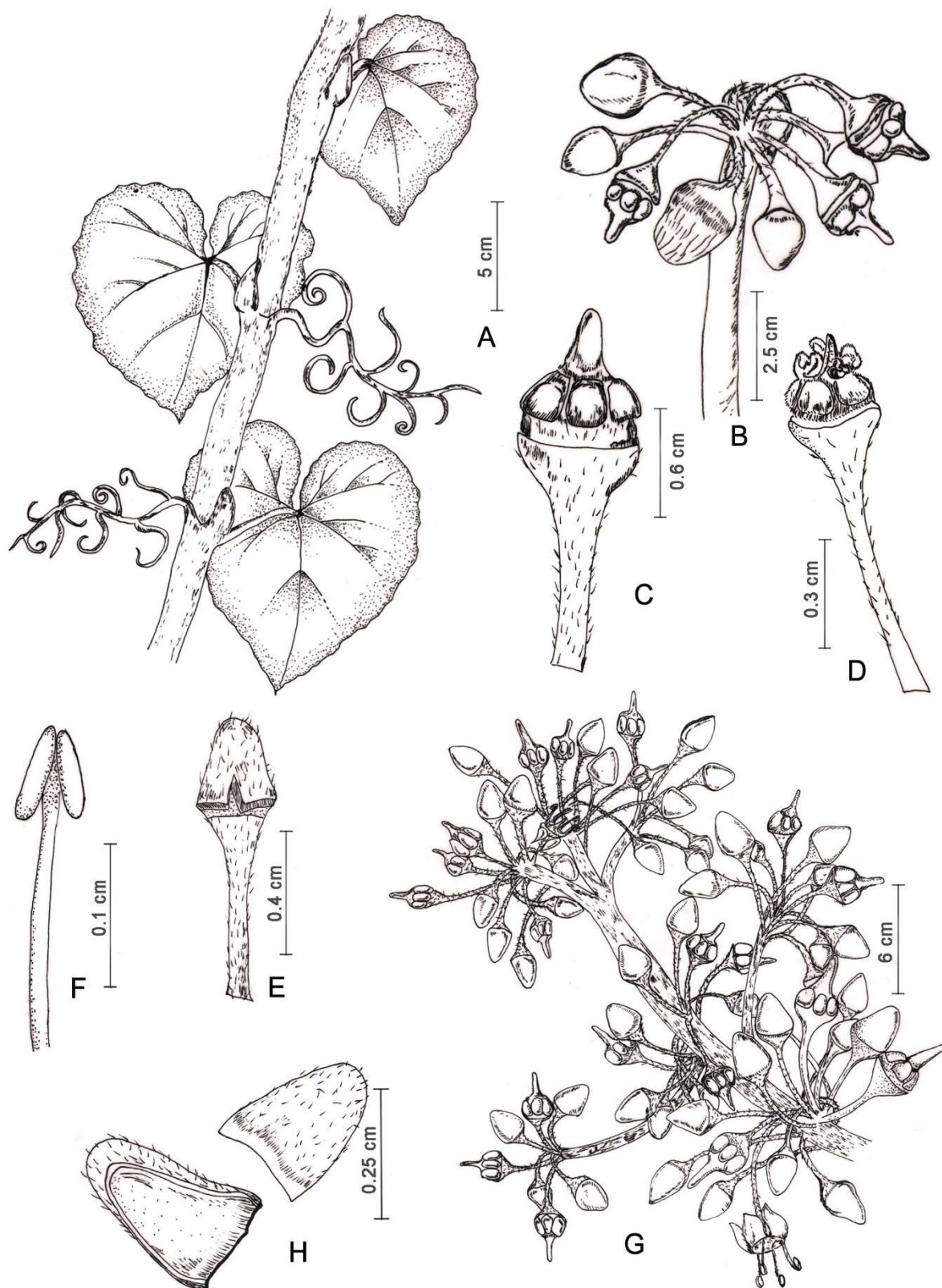


Fig 2. *Parthenocissus renukae* **A.** Habit, **B.** Drumpling Umbel, **C.** Gynoecium, **D.** Androecium with Gynoecium, **E.** Flower Bud, **F.** Stamen, **G.** Inflorescence, **H.** Petal.



of this taxon in these areas is determined to be less than 15.

Etymology: The specific epithet is in honour of Dr. C. Renuka, Scientist (Rtd.), Kerala Forest Research Institute, Peechi, Thrissur, in appreciation to her contributions to taxonomy and for her support and encouragement to the first author to take up a career in taxonomic research.

Notes: This is the only species having simple leaves and 4-5-merous flowers in the genus *Parthenocissus*. The floral morphology of this species shows an intermediary position between *Cissus* and *Parthenocissus*.



Fig. 3. Distribution of *Parthenocissus renukae* sp. nov.

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