

Zehneria bodinieri (H. Lév.) W.J. de Wilde & Duyfjes (*Cucurbitaceae*) – A new addition to the flora of Odisha, India

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ABSTRACT

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Zehneria bodinieri (H. Lév.) W.J. de Wilde & Duyfjes has been collected from the Barsuan Range of Bonai Forest Division, Sundargarh District, Odisha, India. The species is found to be a new record to the flora of Odisha after reviewing its distribution through available literature. Detailed taxonomic description and photographs are provided for easy identification of the species.

Keywords: Barsuan Range, Bonai Forest Division, *Cucurbitaceae*, new record, *Zehneria*

INTRODUCTION

The genus *Zehneria* Endl. (Family: *Cucurbitaceae*) comprises about 68 species and its native range is tropical and subtropical Old World to Pacific (POWO 2022). In India, it is represented by 5 species (Dwivedi et al. 2018), of which *Zehneria hookeriana* (Wight & Arn.) Arn. and *Z. maysorensis* (Wight & Arn.) Arn. are endemic. During floristic expeditions of Bonai Forest division, Sundargarh District, Odisha (Figure 1) in November 2021, a remarkable species of *Zehneria* was collected at an elevation of 785 m from Barsuan Range. After detailed study of *Zehneria* species of India, including protologues, type specimens, other herbarium

specimens and relevant literature (Wilde & Duyfjes 2004, 2006, Renner & Pandey 2013, Dwivedi et al. 2018), it is identified as *Zehneria bodinieri* (H. Lév.) W.J. de Wilde & Duyfjes, as a new record for Odisha state. This species is known in India from Karnataka, Kerala, Tamil Nadu and North India.

TAXONOMIC TREATMENT

Zehneria bodinieri (H. Lév.) W.J. de Wilde & Duyfjes, *Thai Forest Bull.*, Bot. 32: 17. 2004.

Figure 2.A–K

Melothria bodinieri H. Lév., *Fl. Kouy-Tcheou* 122. 1914.

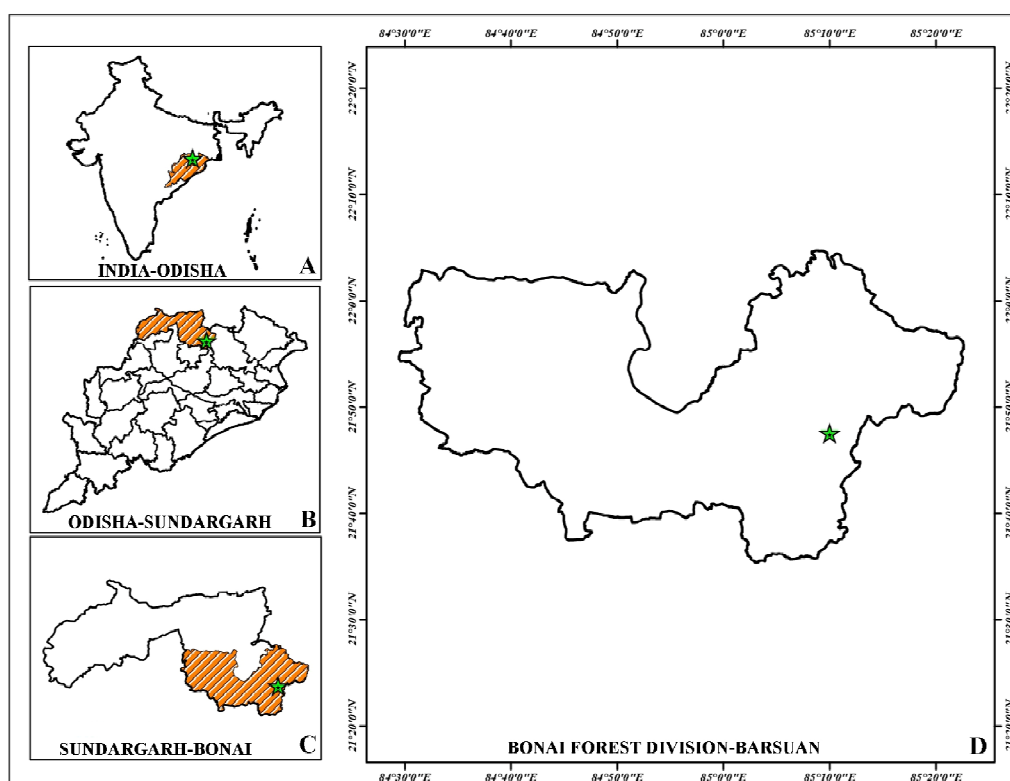


Figure 1. A. Map of India showing location of Odisha. B. Map of Odisha showing location of Sundargarh District. C. Map of Sundargarh District showing location of Bonai Forest division. D. Map of Bonai Forest division showing collection site of *Zehneria bodinieri*.

Pilogyne bodinieri (H. Lév.) W.J. de Wilde & Duyfjes, *Reinwardtia* 12(5): 410. 2009. Lectotype: China, Kouy-Yang, Sept.-Oct. 1897, E. Bodinier 1957 (E00275583!, designated by Wilde & Duyfjes 2004); isolectotype P02273820!. Remaining syntype: China, Tou-yun, 23 July 1905, J. Cavalerie 2482 (E00275582!).

Melothria perpusilla var. *subtruncata* Cogn., *Monogr. Phan. [A.DC. & C.DC.]* 3: 608. 1881. Lectotype: Sri Lanka, s.d., G. Thwaites 1613 (K [not traceable], designated by Wilde & Duyfjes 2004); isolectotypes BR0000006606220!, GH00261600!, P00218583!. Remaining syntype: India, Peninsular India, s.d., R. Wight 1151 (L0129252!).

Description: Climbing herbs, monoecious. Stem and branches 1.5–5 m long, slender, sulcate-angular, glabrous; tendrils up to 10 cm long, simple, filiform, glabrous. Leaves simple, alternate, broadly ovate or ovate-triangular, 3.5–10 × 2.5–8 cm, membranous, glabrous on both surfaces, apex acuminate or acute-

shortly acuminate, base cordate, margins dentate; petioles 0.8–5 cm long, slender, glabrous. Male inflorescence 3–7 flowered, cymose; peduncle 1.5–4.5 cm long, slender, glabrous; pedicels 1.5–4.5 mm long, slender, glabrous; calyx tube campanulate, 2.5–3 × 1.5–2 mm, light green, glabrous outside, pubescent inside; lobes 5, narrowly triangular, 0.4–0.5 mm long, light green, glabrous; corolla white, pubescent inside; lobes 5, ovate 2–2.5 mm long, apex subacute; stamens 3, inserted above the base of calyx tube; filaments 1.5–2 mm long, puberulent; anthers 2-celled, ovoid-globose, 0.7–0.8 mm across. Female inflorescence solitary or 2–3 in an umbel; pedicels 2–4.5 mm long, elongated in fruits, slender, glabrous; calyx as in male flower; petals 3–3.5 mm long, other characters similar to male; ovary ovoid-globose, 2.5–3 mm long, glabrous; style as long as ovary, glabrous; stigma 3-lobed, 1–1.5 mm across, papillose. Fruits solitary or 2–3, globose, 0.8–1.1 cm across, glabrous, green when unripe, red when ripe; fruiting pedicels 0.6–1 cm long, slender, glabrous. Seeds

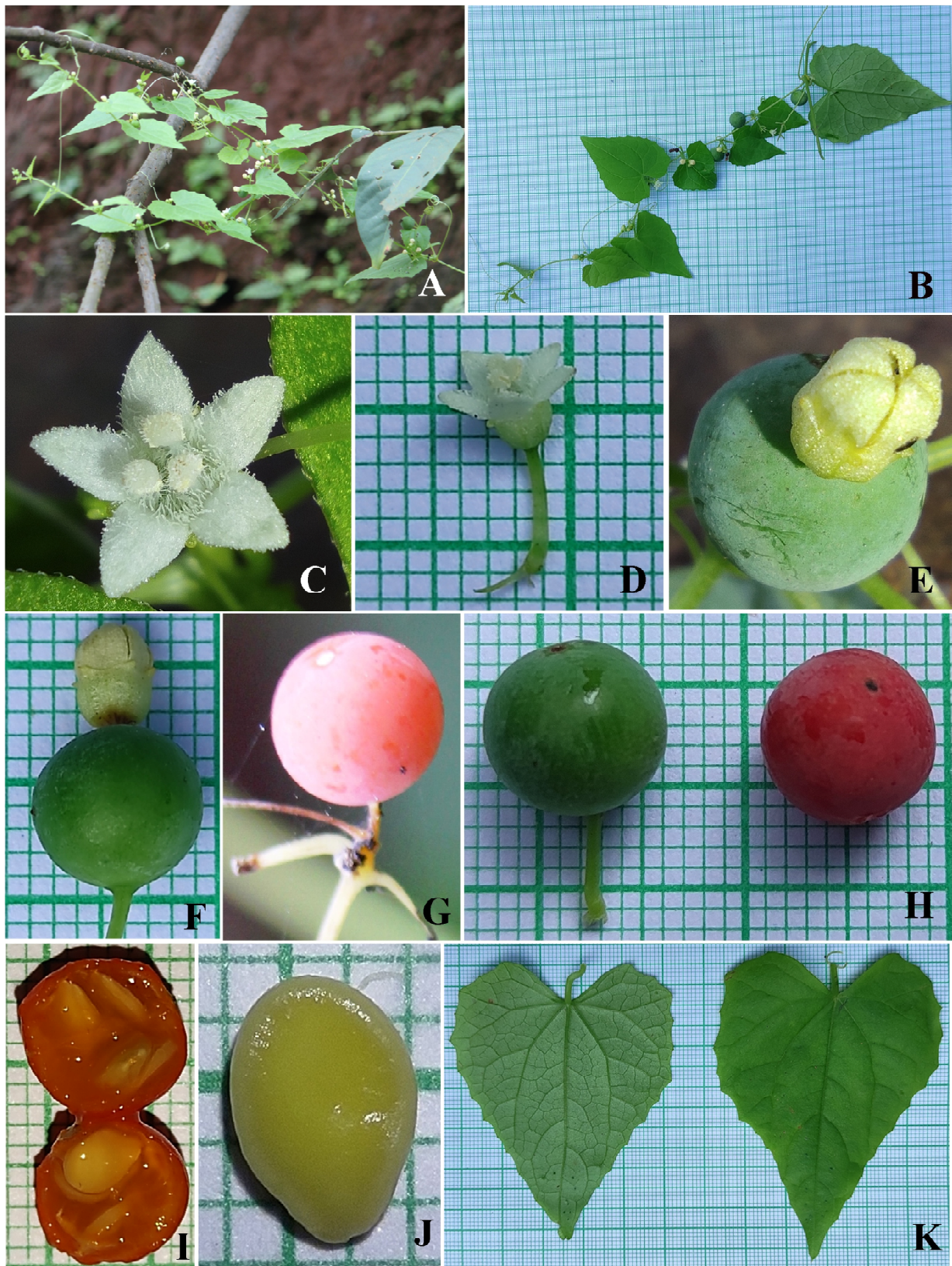


Figure 2. *Zehneria bodinieri*. A-B. Habit. C-D. Female flower. E-F. Male flower G-H. Fruit. I. Dissected fruit showing pulp and seeds. J. Seed. K. Abaxial and adaxial side of leaf.

elliptic-obovate, 4.5–5.5 mm long, compressed, smooth, light brownish when dry.

Phenology: Flowering from June to November and fruiting August to January.

Distribution: Karnataka, Kerala, Tamil Nadu, North India, Northeast India and Odisha.

Habitat and ecology: This climbing herbs grows along forest margins or roadsides on mountain slopes, in association with *Begonia picta* Sm., *Lindenbergia muraria* (Roxb. ex D. Don) Brühl, *Phanera vahlii* (Wight & Arn.) Benth., *Thalictrum foliolosum* DC., *Zingiber roseum* (Roxb.) Roscoe, grasses and sedges.

Specimen examined: India, Odisha, Sundargarh District, Bonai Forest division, Barsuan, 21°47'35" N, 85°10'01" E, 785.66 m, 26 November 2021, Sweta Mishra & Sanjeet Kumar 0064 (Herbarium of Ambika Prasad Research Foundation, Odisha).

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