

Eriocaulon hamiltonianum (Eriocaulaceae): A New Distributional Record for Kerala

Research Article

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Abstract

Eriocaulon hamiltonianum Mart., earlier known only from central and northeast India, has been recorded for the first time in Kerala. This discovery expands the known geographic distribution of the species, providing new insights into its ecological range. A comprehensive description of the species is provided, including detailed nomenclature, illustration, distribution patterns, and photographs.

Keywords: *Eriocaulon*; Kerala; New Record; Wayanad

Introduction

The genus *Eriocaulon* L., commonly known as pipeworts, belongs to the family Eriocaulaceae and was described by Carl Linnaeus (1753) [1]. It is a subtropical and tropical genus of about 479 species POWO (2020) [2] with centers of diversity in South America, Africa, and the Indian subcontinent (Leach, 2017) [3]. The species of *Eriocaulon* grow exclusively in damp or aquatic places (De Oliveira & Bove, 2011) [4] and are mostly acaulescent herbs with a monoecious head inflorescence. Ansari and Balakrishnan (2009) [5] introduced a new system of classification for the species of Indian *Eriocaulon* and established twelve numbered sections based on seed surface characters. They recognized 80 species, of which 68 are from Peninsular Indian region, showing the greatest species diversity and endemism in the area. Since then, 30 more species have been described from India, bringing the total number to 110 (Shaju et al., 2022) [6].

During floristic explorations in the Wayanad district of Kerala,

the authors encountered an interesting population of *Eriocaulon* in Muthanga Forest Range of Wayanad Wildlife Sanctuary, Kerala. Upon critical examination and a review of literature (Ansari & Balakrishnan, 2009) [5], the specimen was identified as *Eriocaulon hamiltonianum* Mart., previously known only from central and northeast India. Thus, this collection represents a new distributional record for Kerala. A detailed description, along with illustration and photographs, is provided for easy identification.

Results

Eriocaulon hamiltonianum Martius in Wallich, Pl. Asiat. Rar. 3:29. 1832; Hook.f., Fl. Brit. India 6: 579. 1893; Ruhland in Engl., Pflanzenr. !V 30 (13): 107. 1903; Fyson in J. Indian Bot. 2: 313. 1921; Ansari & Balak., Eriocaulaceae India (Revised Edition) 114. 2009.

Acaulescent annual herbs. Rootstock absent. Leaves crowded in to a basal rosette, 1.5–4.5 x 0.2–0.5 cm, linear-lanceolate, acute at apex, glabrous. Sheaths 2–3 cm long, glabrous; limb ca. 4 mm

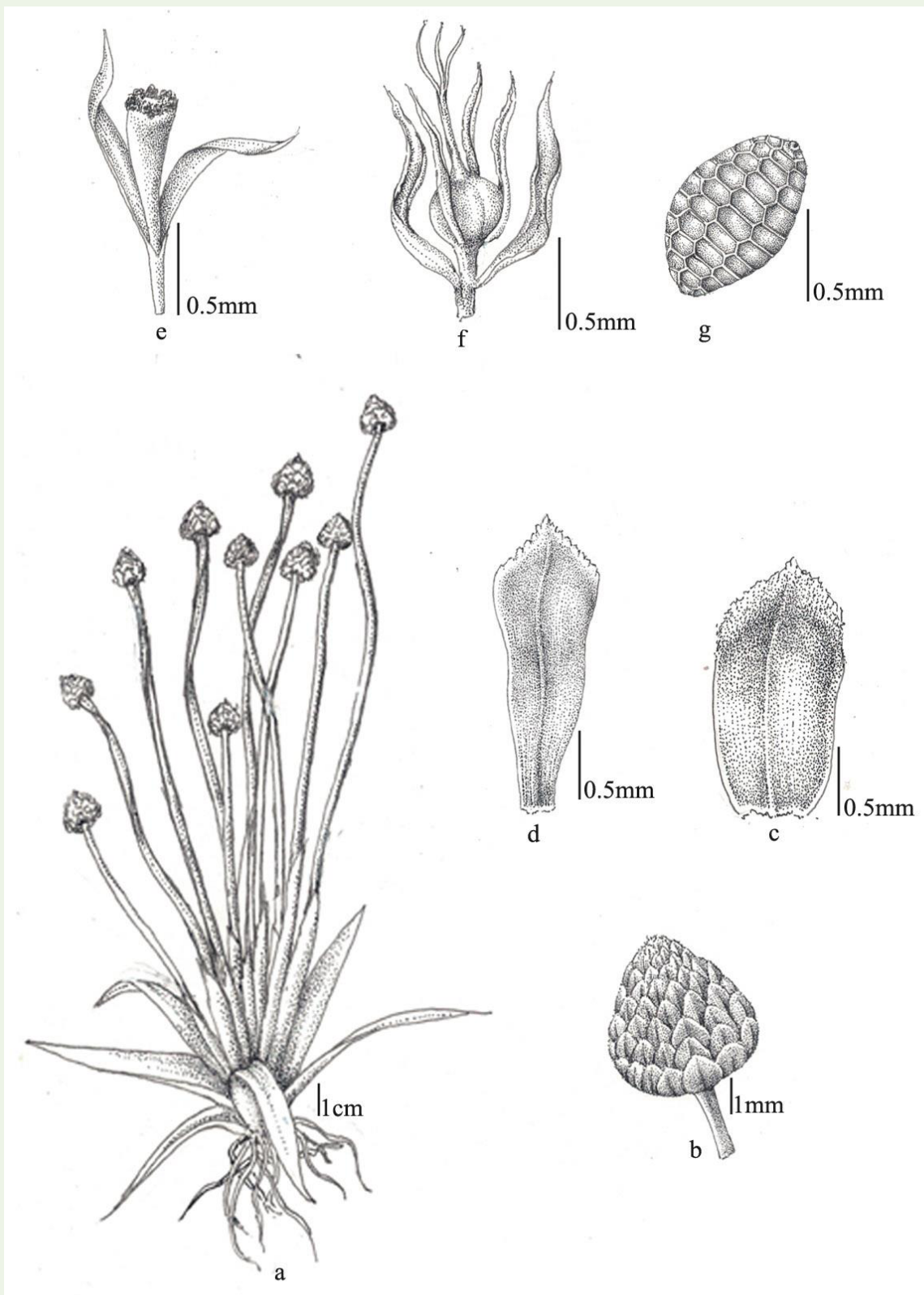


Figure 1: Habit, b. Single head, c. Floral bract, d. Involucral bract, e. Male flower, f. Female flower, g. Seed.



Figure 2: (Photo Plate): A and b. Habit (Young and mature plants), c. Single head, d and e. Floral bract (abaxial & adaxial view), f and g. Involucral bract (abaxial and adaxial view), h. Male flower, i. Female flower, j. Seeds.

long, ovate, acute at apex, glabrous. Peduncles 4–41 per plant, 5–11 cm long, striate, glabrous. Heads 3.5–5 mm across, spherical, straw-colored. Receptacles cylindrical, pilose. Involucral bracts 1.5–2 x 0.7–1 mm, oblong-lanceolate to oblanceolate, acute to obtuse at apex, chartaceous, glabrous, straw-coloured. Floral bracts 2–2.3 x 0.6–0.8 mm, oblanceolate, base cuneate, acute at apex, chartaceous, glabrous, straw-coloured. Male flowers: Pedicels 0.3–0.5 mm long; sepals 2, free, 1–1.2 x 0.3–0.4 mm, oblanceolate-falcate, acute at apex, glabrous, straw-coloured to black; stipe of corolla 0.5–0.7 mm long; petals 3, minute; stamens 6, anthers globose, black. Female flowers: Pedicels 0.3–0.5 mm long; sepals 2 or rarely 3, free, sub-equal, 1–1.3 x 0.1–0.2 mm, linear, acuminate at apex, glabrous, black, the middle one if present minute; petals 3, free, sub-equal, 0.8–1.2 mm long, linear or linear-oblanceolate, acuminate at apex without any black gland, hyaline with 1–2 white hoary hairs at apex; stipitate between sepals and petals; ovary stalked, ca.0.3 mm long, sub-globose; style 3-fid. Seeds 0.3–0.4 x 0.2–0.3 mm, ovoid, apiculate, pale yellow; cells of seed coat transversely elongated, aligned in vertical rows; appendages in the form of a pair of continuous ribbon like bands from transverse and vertical radial walls conforming to its length.

Flowering and Fruiting: October–February.

Habitat: Marshy grass land in Dry deciduous forests.

Distribution: INDIA: The species is found in Maharashtra, Assam, Madhya Pradesh, and West Bengal. Recent records also indicate its presence in Kerala, specifically in the Wayanad district, marking a new distributional record for the state

WORLD: Outside India, *Eriocaulon hamiltonianum* is reported from Thailand, New Guinea, and Indonesia, typically in subtropical and tropical regions. The species thrives in wetland habitats such as marshes, riverbanks, and forest clearings, often at low to mid-elevations.

Specimen examined: INDIA, KERALA, Wayanad District, Muthanga (Wayanad Wildlife Sanctuary), Nallorvayal, ca.± 800 M, December 2022, C.N. Sunil & Ratheesh Narayanan 4889 (SNMH!).

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