

Eleocharis neglecta (Cyperaceae): an addition to the flora of South India

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Abstract: *Eleocharis neglecta* Borude, Chandore, Gholave & S.R.Yadav, closely similar to *E. dulcis* (Burm.f.) Trin. ex Hensch., was collected from Thiruvananthapuram district and reported here for the first time from South India. A detailed description of the species along with a photoplate and relevant notes are provided for easy identification.

Keywords: *Eleocharis*, Cyperaceae, Kerala, Thiruvananthapuram

Introduction

Eleocharis R.Br. is a cosmopolitan genus comprising c. 300 species worldwide (Govaerts *et al.*, 2021). The genus is represented by 25 species in India (Borude *et al.*, 2016), of which 12 species occur in Kerala (Sasidharan, 2004).

During the course of a floristic revision of the genus *Eleocharis* in Kerala, the authors collected some specimens from waterlogged areas of Chirayinkeezhu taluk in Thiruvananthapuram district, which were later identified as *E. neglecta* Borude, Chandore, Gholave & S.R.Yadav of subgenus *Limnochloa* (P.Beauv. ex Lestib.) Torr. This species has been described from the Konkan region of Maharashtra, India (Borude *et al.*, 2016), but has not been reported from South India (Karthikeyan *et al.*, 1989; Prasad & Singh, 2002). It is hence reported here as an addition to the flora of South India.

Micromorphological studies of nut: Mature achenes were subjected to SEM studies. Achenes were acetolyzed by submerging it in 1:9 concentration of sulfuric acid and acetic anhydride, later

sonicated, washed with distilled water and finally coated with gold-palladium alloy. SEM micrographs were taken using EVO 18 scanning electron microscope (Zeiss, Germany) at Central Laboratory for Instrumentation and Facilitation (CLIF), Thiruvananthapuram.

Taxonomic Treatment

Eleocharis neglecta Borude, Chandore, Gholave & S.R.Yadav, Bangladesh J. Pl. Taxon. 23(2): 91. 2016. *Type:* INDIA, Maharashtra, Ratnagiri district, Rajapur, A.N. Chandore 1951 (holo: CAL; iso: BSI, K [K000342305 digital image!], SUK). **Fig. 1**

Perennials. Rhizome short with elongated stolons bearing sub-globose white tubers. Culms terete, tufted, erect, transversely septate, pale green, 40–90 × 0.15–0.3 cm. Leaves reduced to sheath around the base of culms. Sheaths brownish, apically mucronate, outer sheath 5 cm long, inner sheath 10–15 × 0.15–0.3 cm. Inflorescence a terminal spikelet, angular, many-flowered, acute, slightly wider than culm, 1.5–2.5 × 0.2–0.35 cm. Glumes 25–30 per spikelet, lower glume sterile, green, ovate, acute, membranous towards apex, c. 0.5 × 0.4 cm, upper fertile glumes ovate to elliptic, mostly membranous, fairly imbricate, persistent, scarious along margins at apex, central nerve prominent, c. 0.45 × 0.17 cm. Hypogynous bristles 7, two to three times longer than nut, unequal, retrorsely scabrid, 0.3–0.35 cm long. Stamens 3; anthers linear, 2–3 mm, filament whitish. Style trifid. Achenes biconvex, yellowish, swollen at middle, narrow towards base, 1.5–1.8 × 0.8–1 mm, style base persistent, conical, 0.6–0.8 mm long.

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Fig. 1. *Eleocharis neglecta* Borude, Chandore, Gholave & S.R.Yadav. a. Habitat; b. Culms; c. Rhizome with tubers; d. Spikelets; e. Fertile glume; f. Sterile glume; g. Stamens; h. Achene; i. SEM image of achene (from Kavya K. Nair & A.R. Viji 5202; photos by Kavya K. Nair).

Flowering & fruiting: Flowers and fruits were observed during May to July

Habitat: *Eleocharis neglecta* grows abundantly in water-logged areas of Chirayinkeezhu along with *Eleocharis spiralis* (Rottb.) Roem. & Schult., *Fimbristylis ferruginea* (L.) Vahl. (Cyperaceae) and *Nymphaea nouchali* Burm.f. (Nymphaeaceae)

Distribution: Endemic to India.

Specimen examined: INDIA, Kerala, Thiruvananthapuram district, Chirayinkeezhu, 27.10.2022, *Kavya K. Nair* 5202 (TBGT).

Notes: *Eleocharis neglecta* closely resembles *E. dulcis* (Burm.f.) Trin. ex Hensch., but can be distinguished by its slender, sub-rigid culms, angular spikelets which are wider than the culms, and the testa cells are minute, oblong-hexagonal and arranged in several vertical rows. Borude *et al.* (2016) named the species *E. neglecta* in reference to the fact that it had been neglected by earlier taxonomists presumably due to its close resemblance to *E. dulcis*.

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