



Eleocharis pseudobulbosa, a new species of Cyperaceae from Southern Brazil (Capão Bonito, São Paulo)

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Abstract

Eleocharis pseudobulbosa, a new species of Cyperaceae from Southern Brazil (Capão Bonito, São Paulo), is here described based on external morphological studies. This species is characterized by the presence of conspicuous stolons with straw-colored scales, forming a bulb-like structure in the growing points of the new culms; circular to oval culms in cross section; spikelets with small number of flowers [10–25(–30)]; achene small (0.6 mm long) and slightly reticulate; and stylopodium as wide as the achene. A detailed illustration and a diagnostic comparison with close morphological related species are presented.

Resumo

Eleocharis pseudobulbosa, uma nova espécie de Cyperaceae do Sul do Brasil (Capão Bonito, São Paulo), é aqui descrita baseada em estudos morfológicos externos. Esta espécie caracteriza-se pela presença de estolões conspícuos, com escamas cor de palha formando estruturas semelhantes a bulbos nos pontos de crescimento de novos colmos; colmos com secção transversal circular a oval; espiguetas com número pequeno de flores [10–25(–30)]; aquênios pequenos (0.6 mm long) e levemente reticulados; e estilopódio da mesma largura do aquênio. Uma ilustração detalhada e um diagnóstico comparativo com espécies morfológicamente relacionadas são apresentados.

Key words: Cyperaceae, Cyperoideae, *Eleocharis*, Endemic species, Flora of São Paulo

Introduction

Eleocharis R. Br. belongs to Cyperaceae (5430 species: 98 genera), subfamily Cyperoideae (5257 species: 92 genera) (Stevens 2001 onwards). The genus is widely distributed, generally associated with humid environments (Trevisan & Boldrini 2010), and comprises more than 200 species (González-Elizondo & Peterson 1997). The major concentration of *taxa* occur in tropical and subtropical America (Goetghebeur 1998). In Brazil, *Eleocharis* presents about 69 species (Alves *et al.* 2009), of which 25 occur in the state of São Paulo (Wanderley *et al.* 2011). During a floristic survey of Cyperaceae, within aquatic ecosystems in the municipality of Capão Bonito (Southern São Paulo state, Brazil), a total of 14 *Eleocharis* species were found (Lima & Gil unpubl. data) in which one is new for science and is here described. According to Trevisan & Boldrini (2010), that new species belongs to *Eleocharis* subg. *Eleocharis* sect. *Eleocharis* ser. *Tenuissimae* (Clarke 1908: 106) Svenson (1929: 129). This series is characterized by dwarf and capillary or more or less coarse, sometimes proliferous plants, usually having trigonous, smooth to deeply cancellate achenes and 3-branched style (González-Elizondo & Peterson 1997,

Taxonomic relationships:—The new species is morphologically similar to *Eleocharis densicaespitosa* Trevisan & Boldrini (2010: 505) and *Eleocharis quinquangularis* Boeckeler (1888: 15), sharing the caespitose habit, the slender culms, the oblique sheath apex without hyaline appendix, the sterile lower (basal) glume with a wide hyaline margin, the floral glumes always with brownish parts, the absence of perianth bristles, the 3 stamens and trifid styles, the trigonous, obovoid achene and the pyramidal stylopodium. *Eleocharis pseudobulbosa* differs from both species by the presence of conspicuous stolons (vs. rhizomes), circular to oval culms in cross section (vs. 5-angled), spikelets with smaller number of flowers [10–25(–30)] [vs. 40–70(–180) in *E. densicaespitosa* and 40 in *E. quinquangularis*], smaller (0.6 mm long) and slightly reticulate achene (vs. 1–1.2 mm long in *E. densicaespitosa* and 0.8 mm long in *E. quinquangularis* and both smooth) and stylopodium as wide as the achene (vs. ca. 3/4 in *E. densicaespitosa* and ca. 1/3 to 2/3 in *E. quinquangularis*). Furthermore, *E. pseudobulbosa* can be easily confused with *Eleocharis filiculmis* Kunth (1837: 144), differing in absence of perianth bristles (vs. 4–5 in *E. filiculmis*), by having stolons (vs. rhizomes in *E. filiculmis*) and by presence of only one sterile lower glume (vs. 2 in *E. filiculmis*).

Acknowledgements

The authors are grateful to Faculdade de Tecnologia de Capão Bonito, São Paulo, Brazil (FATEC-CB), directed and represented by Dr. José F. Souza, for the structural support; to Mr. Daniel Barros (FATEC-CB), for their valuable help in collecting material, to MSc. Fábio H. A. Vieira, for the English review (FATEC-CB), and to anonymous reviewers for their valuable contributions.

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