



Tillandsia leucopetala, a new species of Bromeliaceae from Rio Grande do Sul, southern Brazil

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Abstract

Tillandsia leucopetala H. Büneker, R. Pontes & L. Witeck is an endemic saxicolous new species from Rio Grande do Sul, southern Brazil. It is described, illustrated and data about its geographic distribution and ecology are provided.

Key words: Taxonomy, *Tillandsia* subg. *Anoplophytum*, *Tillandsia tenuifolia* complex

Introduction

The genus *Tillandsia* L. shows a wide geographical distribution that coincides with the distribution of Bromeliaceae as a whole. *Tillandsia usneoides* (L.) Linnaeus (1762: 411) is the species with the widest distribution of the family, occurring from the southern United States to the Patagonia in Argentina (Smith & Downs 1977). In contrast to the epiphytic species with large distribution, like *T. usneoides*, the saxicolous species often have restricted occurrence due to discontinuity and fragmentation of their habitat, occurring in rocky areas known as “inselbergs”, being often endemic in these small areas (Tardivo 2002, Coser *et al.* 2010).

Among the six currently accepted subgenera of *Tillandsia* (e.g. *Tillandsia*, *Allardtia* (A. Dietr.) Baker (1888: 40), *Anoplophytum* (Beer) Baker (1887: 212), *Diaphoranthema* (Beer) Baker (1878: 236), *Phytarrhiza* (Vis.) Baker (1887: 212) and *Pseudalcantarea* Mez (1935: 455, Barfuss *et al.* 2005)), *Anoplophytum* is the one with the highest species diversity in the state of Rio Grande do Sul, Brazil. It is the subgenus with larger-sized saxicolous species, with restricted occurrence and endemic in this state, as exemplified by *T. afonsoana* Strehl (2000: 23), *T. bella* Strehl (2000: 24), *T. itaubensis* Strehl (2000: 25), *T. jonesii* Strehl (2000: 27), *T. polzii* Ehlers (1997: 11), *T. rohdenardini* Strehl (2004: 34), *T. toropiensis* Rauh (1984: 10), *T. winkleri* Strehl (2000: 28) and *T. witeckii* Büneker *et al.* (2014: 94). This list is now expanded by the new species described here.

Material and Methods

Specimens were collected for laboratory study, cultivation and herborization. The living specimens were included in the living collection of the Botanical Garden of Colégio Politécnico da Universidade Federal de Santa Maria (Rio Grande do Sul, Brazil). The morphological variation of this new species was observed in habitat and in cultivated specimens, which were also compared to morphologically closely related species. The quantitative and qualitative morphobiometric data were obtained in material collected *in situ*. Measures of flowers and floral parts were taken from the second or third flower from the base of the inflorescence, taking into account that the basal flowers are bigger than the apical ones. The terminology used in the description follows Smith & Downs (1977) with adaptations following

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