



Tillandsia chalcatzingensis, a new species from the state of Morelos, Mexico

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Abstract

Tillandsia chalcatzingensis from Morelos, Mexico is described and illustrated. The new species is compared with *T. superinsignis*, *T. thyrsigera* and *T. tonalaensis*, taxa with similar morphological features. A comparative table and a distribution map of these taxa are included.

Resumen

Se describe e ilustra *Tillandsia chalcatzingensis* procedente del estado de Morelos, México. Se compara la nueva especie con *T. superinsignis*, *T. thyrsigera* y *T. tonalaensis*, especies que presentan características morfológicas similares. Se incluyen un cuadro comparativo y un mapa de distribución de estos taxa.

Introduction

In the course of the botanical exploration of the state of Morelos for the postgraduate project of the first author (González-Rocha, 2014), we located a colony of saxicolous plants of a *Tillandsia* L. (1753: 286) that we could not identify (Mez, 1896; Smith & Downs, 1977) at Chalcatzingo. Morphologically these plants resemble *T. superinsignis* Matuda (1973: 189), *T. thyrsigera* Morren ex Baker (1889: 185) or *T. tonalaensis* Ehlers (2003: 17).

A detailed comparison of our material collected at Chalcatzingo with the type specimens of *Tillandsia thyrsigera* (Uhde 181, type B!), *T. superinsignis* (Matuda *et al.* 38531, holotype MEXU!, isotypes BR!, CAS!, ENCB!, MO!, XAL!) and *T. tonalaensis* (Ehlers & Ehlers EM8922305, holotype MEXU!) (Table 1), allowed us to conclude that it was an undescribed taxon.

Material and methods

The botanical material was collected at Chalcatzingo, Morelos. The plants grow on the rock cliffs of the Cerro Gordo, which required rappelling to access. Herbarium specimens, including flower dissections, were prepared in situ. Digital images of the plants in situ were obtained. Morphological features of the Chalcatzingo material was compared with the specimens of *Tillandsia superinsignis* and *T. tonalaensis* deposited in the collections of the following Herbaria (BR, CAS, ENCB, HUMO, IEB, MEXU, MO, UAMIZ, XAL), including the type material, and with high resolution images of *T. thyrsigera* type specimens deposited at B (Röpert, 2000+ [continuously updated]). The protologues of the three species mentioned above are revised below to compare their features with those of *T. chalcatzingensis*. The description of the new taxon was based upon examination of living and dry material. The holotype was deposited at Herbario Metropolitano (UAMIZ) at the Universidad Autónoma Metropolitana Iztapalapa (Mexico City).