



Tillandsia religiosa, a new species from the state of Morelos, México

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Abstract

Tillandsia religiosa Hern.-Cárdenas, González-Rocha, Espejo, López-Ferr., Cerros & Ehlers, a new species from Morelos, Mexico is described and illustrated. The new species is compared to taxa with similar characteristics, *T. taxcoensis* Ehlers, *T. thyrsgigera* E. Morren ex Baker and *T. superinsignis* Matuda. Images and a distribution map of the new taxon are included.

Resumen

Se describe e ilustra *Tillandsia religiosa* Hern.-Cárdenas, González-Rocha, Espejo, López-Ferr., Cerros & Ehlers con material procedente del estado de Morelos, México. La nueva especie se compara con *T. taxcoensis* Ehlers, *T. thyrsgigera* E. Morren ex Baker y *T. superinsignis* Matuda, las cuales presentan características similares. Se incluyen imágenes y un mapa de distribución del nuevo taxon propuesto.

Introduction

In the course of the projects “Vascular plants of the barranca Tepecapa, Tlayacapan, Morelos,” and “Bromeliad Flora of Morelos,” we found plants of a huge and beautiful saxicolous *Tillandsia*. After a detailed revision of bibliographic and herbarium material we concluded that this material belongs to a new taxon of the genus, which we propose as:

Tillandsia religiosa Hern.-Cárdenas, González-Rocha, Espejo, López-Ferr., Cerros & Ehlers, *sp. nov.* Fig. 1 A–F.

Tillandsia religiosa is similar to *T. taxcoensis* Ehlers from which it differs by having oblong-elliptic vs. ovate leaf-sheaths, its shorter spike stipes, flowers 9–16 vs. 5–6 per spike, and its glabrous and pruinose vs. densely cinereous-lepidote flower bracts.

Type:—MEXICO, Morelos, municipio de Tlayacapan: 920 m al SW de San José de los Laureles (en línea recta), rumbo a la barranca Tepecapa, taludes en bosque tropical caducifolio y bosque de *Quercus*, 1800 m, 18°58'29" N, 99°00'25" W, 23 January 2011, A. Espejo, R. A. Hernández-Cárdenas, R. Cerros T., J. Espejo, A. Flores-Morales, L. J. Hernández Barón y J. Mora 7419 (holotype UAMIZ(x4)!, isotypes IEB(x3)!).

Plant saxicolous, stemless, solitary, flowering 0.8–1.5 m tall; rosette of the tank type, 35–50 cm high, 25–30 cm in diameter in the broadest part. *Leaves* numerous, rosulate; *sheaths* pale brown abaxially, dark brown adaxially, oblong-elliptic, densely punctulate-lepidote on both surfaces, glabrous towards the base, 16.5–23 cm long, 7.8–11.2 cm wide, entire; *blades* green, narrowly triangular, densely punctulate-lepidote abaxially and sparsely punctulate-lepidote adaxially, 50–64 cm long, 3.8–7 cm wide, long attenuate, entire. *Inflorescence* terminal, erect, once branched of 15–

Etymology:—Specific epithet refers to the religious-ornamental use of these plants by the people of the villages of the Sierra de Tepoztlán, like Tlayacapan, Tepoztlán and San José de los Laureles. The entire plants or the inflorescences are used in altar scenes (“nacimientos”) during Christmas celebrations (Figure 2B).

Comments:—Because of its saxicolous habit, rosette and inflorescence morphology, *Tillandsia religiosa* could be confused, particularly in herbarium material, with *T. superinsignis* Matuda (1973: 189), and with *T. thyrsigera* E Morren ex Baker (1889: 185). However, these two last species have violet corollas, while the new taxon has green petals. *Tillandsia religiosa* is also similar to *T. taxcoensis* Ehlers (1996: 26) (Figure 2C, D), as both species have similar type of inflorescences and green petals, but there are clear differences between the two taxa that are shown in table 1 and figure 2C, D.

TABLE 1. Comparative characters of *Tillandsia religiosa* Hern.-Cardénas, González-Rocha, Espejo, López-Ferr., Cerros & Ehlers and *T. taxcoensis* Ehlers.

	<i>Tillandsia religiosa</i>	<i>Tillandsia taxcoensis</i>
Leaf sheaths	oblong-elliptic, 7.8–11.2 cm wide	widely ovate, 11.8–12.5 cm wide
Floral bracts	pruinose, for most part glabrous, only abaxially sparsely lepidote at the apical margin	densely cinereous-lepidote abaxially
Flowers per spike	9 to 16	5 to 6
Stipe length	(7–)14–28 cm	11.5–18.5 cm
Petal length	4.8–5.6 cm	5.5–6 cm
Distribution	Morelos, in the Sierra de Tepoztlán	Guerrero, vicinity of Taxco

Additional specimens examined (paratypes):—MEXICO, Morelos, municipio de Tepoztlán: at St. Catarina on steep walls, 1700 m, 4 March 1990, K. & R. Ehlers EM900401, (MEXU, WU); sendero a la zona arqueológica del Tepozteco, 2100 m, 19°00′04.38″ N, 99°06′05.18″ W, March 2013, E. González-Rocha 235 (UAMIZ); municipio de Tlayacapan, barranca Tepecapa, 1950 m 18°57′52.42″ N, 99°00′53.72″ W, 23 January 2011, R. A. Hernández-Cárdenas, R. Cerros-Tlatilpa, A. Flores-Morales & L. J. Hernández-Barón 624 (IEB, IZTA, UAMIZ); barranca Tepecapa, 1814 m, 18°58′40.71″ N, 99°00′25.35″ W, 23 January 2011, R. A. Hernández-Cárdenas, R. Cerros Tlatilpa, A. Flores-Morales & L. J. Hernández-Barón 637 (IEB, MEXU, UAMIZ), 638 (HUMO, IEB, MEXU, UAMIZ); municipio de Totolapan, 600 m al E de San Sebastián la Cañada (en línea recta), ladera E del cerro, 1920 m, 18°59′26″ N, 98°57′44″ W, 15 December 2013, E. González-Rocha, R. Cerros Tlatilpa, A. Espejo, A. R. López-Ferrari & L. J. Hernández-Barón 302 (photo UAMIZ).

Acknowledgments

Our thanks to Bruce K. Holst, Linda Prince, Walter Till and Eric Gouda for their critical comments on the manuscript and the revision of the English version, and to Ivonne Nayeli Gomez Escamilla for kindly preparing the distribution map.

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