

A New Species of *Tillandsia* (Bromeliaceae) from the Mexican Yucatán Peninsula

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ABSTRACT. A new species of *Tillandsia* is proposed. It is similar to *Tillandsia brachycaulos* Schlechtendal and *Tillandsia balbisiana* Schultes f., two sympatric species. The new species is most similar to *T. brachycaulos* in flower and bract color, but the elongated inflorescences resemble those of *T. balbisiana*, although the branches are much shorter.

Key words: Bromeliaceae, Mexico, *Tillandsia*, Yucatán.

The Bromeliaceae of the Yucatán Peninsula have recently been reviewed by Ramírez and Carnevali (1999). Later, the same authors proposed the additional species, *T. jaguactalensis* I. Ramírez, Carnevali & Chi (Ramírez et al., 2000), bringing to 20 species the number of taxa in the genus that were thus known to occur in the Mexican portions of the Yucatán Peninsula. This makes *Tillandsia* the largest genus of epiphytes in the area, followed by the orchid genera *Epidendrum* L. (12 species) and *Trichocentrum* Poeppig & Endlicher s.l. (8 species) (Carnevali et al., 2001, and unpublished data). Further exploration and study of the area's Bromeliaceae will certainly continue to yield taxonomic novelties.

The novelty here presented is noteworthy because it seems intermediate between two sympatric species, *Tillandsia brachycaulos* and *Tillandsia balbisiana*, which are widespread and locally common in most of the Yucatán Peninsula.

Tillandsia maya I. Ramírez & Carnevali, sp. nov.

TYPE: Mexico. Yucatán: Municipio Mérida, Parque Nacional de Dzibilchaltún, vegetación de selva baja caducifolia, aprox. 89°35'49"W, 21°5'44"N, ago. 2001 ["planta epífita, flores moradas, 1 ó 2 abiertas simultáneamente, estigma apenas saliendo por encima del tubo de la corola, creciendo con *Tillandsia brachycaulos* Schltdl., *T. balbisiana* Schult. f., *T. elongata* (Kunth.) var. *subimbricata* (Baker) L. B. Sm., *T. paucifolia* Baker"], I. Ramírez, G. Carnevali, F. Chi-May & U. González 929 (holotype, CICY). Figure 1.

Species haec *T. brachycaulos* affinis, sed plantis majoribus, foliis reflexis paucioribus, inflorescentiis scaposis, ramulis pedunculum adpressis diversa; *T. balbisiana* ramis inflorescentiae brevioribus non-complanatis, floribus fasciculatis recedit.

Medium-sized epiphytic herbs, 28–40 cm tall. Rosettes erect, with 16–20 leaves. Foliar sheaths densely lepidote on both surfaces, membranaceous, green, (4–)5–7 cm long, (2.5–)3–4 cm wide, oblong, attenuate toward the apex; lamina narrowly triangular, attenuate, apex recurved, twisted when dry, green on both surfaces, minutely lepidote, (12–)30–35 cm long, (1.5–)1.8–2(–3) cm wide, somewhat concave. Inflorescence a panicle with short, appressed branches, 27–35 cm long measured from the base of the rosette, erect, cylindric, many-flowered, as long as to much longer than the leaves; peduncle either partially enveloped (1/2 of its length) by the primary bracts or completely exposed; 14–18 cm long measured from the base of the rosette to the base of the fertile portion of the inflorescence; fertile portion of the inflorescence 10–15 cm long, with 7 to 9 polystichously arranged appressed branches; primary bracts from broadly elliptic to ovate-elliptic, 17–28 cm long, free portion of the primary bract 8–12 mm wide, foliaceous, abruptly tapering into a narrowly triangular acuminate lamina, diverging and exposing the apex of the branch, basally red, apically green, minutely lepidote on both surfaces, nerved when dry. Branches appressed to the main axis or slightly diverging, with 3–5 flowers each, 3–3.5 cm long, 0.9–1 cm wide. Floral bract ca. 2 cm long, ca. 0.7 cm wide, narrowly elliptic, acute, densely lepidote inside, green outside, apically red, keeled. Flowers 4–4.5 cm long, erect, 1 or 2 open per branch at any given time, thus inflorescences display several flowers open simultaneously, each one lasting one day; sepals 12–15 mm long, 3–4 mm wide, posterior ones connate for 2/3 of their length, the anterior one connate for 1/3 of its length, white, apically reddish, sparsely lepidote; petals imbricate, making a tube-like corolla, 32–34 mm long, 5–6 mm wide,



Figure 1. *Tillandsia maya* I. Ramírez & Carnevali. —A. Habit with inflorescence, showing also an old inflorescence from the previous rosette. —B. Flower with floral bract and fascicle bracts. —C. Flower with sepals. —D. Floral bract flattened. —E. Sepals flattened. —F. Petal flattened. —G. Stamen with dorsifixed anther. —H. Ovary, style, and stigma with details of the stigmatic region. (Drawn from holotype, Ramírez *et al.* 929, CICY.)

base narrowly oblong, blade elliptic, obtuse, purple, constricted at 14–15 mm from the base, base narrowly oblong; stamens in two series, white, filaments 4 and 7 cm long, pollen bright yellow; anthers 3 mm long, 1 mm wide, versatile, dorsifixed, dark brownish; style 32–35 mm long, stigma conduplicate-spiral, with three white lobes, 2 mm long each, surpassing the anthers in anthesis, white, green-tinged; ovary 5 mm long, 2 mm wide, locules 2.5 mm long, 30 to 33 ovules per locule.

Etymology. The specific epithet honors the Maya, the first people to inhabit the area where the plants of this new taxon were collected.

Tillandsia maya belongs in subgenus *Tillandsia* and seems closely related to *Tillandsia balbisiana*. With this species, *T. maya* shares a similar vegetative habit (pseudobulbose rosette) with curled leaves and an elongated inflorescence. The rosettes of *T. maya*, however, are less conspicuously pseudobulbose and the leaves are comparatively less lepidote, looking greener than in *T. balbisiana*. The inflorescences are proportionally shorter in *T. maya* than in *T. balbisiana*.

The inflorescence of *Tillandsia maya* is similar to that of the recently described *Tillandsia maypatii* I. Ramírez & Carnevali (Ramírez & Carnevali, 1999). Both taxa share a condensed panicle with sessile, appressed branches. *Tillandsia maypatii*, however, features larger (5–5.5 cm long), white flowers, more numerous leaves (30 to 40) in a more open rosette. The inflorescences in *T. maypatii* are also proportionally shorter and denser.

The habitat where this new taxon occurs is a low caducifolious forest, dominated by *Gymnopodium floribundum* Rolfe trees, a member of the Polygonaceae. *Tillandsia maya* grows as an epiphyte at relatively low elevations (0.5–3 m) from the floor and

among several other epiphytic species such as *Tillandsia elongata* var. *subimbricata* (Baker) L. B. Smith, *T. recurvata* (L.) L., *T. fasciculata* Swartz, *T. schiedeana* Steudel, *T. paucifolia* Baker, *Aechmea bracteata* (Swartz) Grisebach, and epiphytic orchids such as *Trichocentrum cebolleta* (Jacquin) M. W. Chase & N. H. Williams and *Harrisella porrecta* (Reichenbach f.) Fawcett & Rendle. Despite five years of fieldwork in the park, only two plants of this new taxon have been found, one of them under cultivation at the Jardín Botánico Regional CICY.

Paratype. MEXICO. **Yucatán:** Municipio Mérida, Parque Nacional de Dzibilchaltún, aprox. 89°35'49"W, 21°5'44"N, ago. 2002 ["planta epífita, flores moradas, 1 ó 2 abiertas simultáneamente, estigma apenas saliendo por encima del tubo de la corola, creciendo con *Tillandsia brachycaulos* Schltdl. y *T. balbisiana* Schult. f."], I. Ramírez & G. Carnevali 956 (MO).

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