

AECHMEA TUITENSIS (BROMELIACEAE: BROMELIOIDEAE, PODAECHMEA),
A NEW SPECIES FROM WESTERN MEXICO

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Recent field work for a bachelor's thesis on the Bromeliaceae of the coast of Jalisco, Mexico (Magaña unpubl.) has resulted in several interesting collections, among them a small lithophilic Aechmea which apparently has been in cultivation under the name A. macvaughii (Gardner, 1984). Comparison of our plant and another collection of A. macvaughii (Lott 1925, MEXU), from Colima, Mexico confirmed that two different species are involved.

AECHMEA TUITENSIS P. Magaña & E.J. Lott, sp. nov.

A. macvaughii L.B. Smith statura minore, foliis ad 56 cm longis, 2-4.5 cm latis, scapo erecto, inflorescentia erecta simplici, 11-18 cm longa, bracteis floralibus 4.5 cm longis, petalis oblongis, obtusis et lobis stigmatis torsivis differt.

Plants small semicaulescent rosettes 30-60 cm tall at anthesis; propagating freely by basal rhizomes. Leaves 15-20, the sheaths ovate, 8-11 cm long, 4-7 cm wide, green to red, densely white-lepidote, fleshy, the venation conspicuous, the margin entire; leaf blades triangular, 20-45 cm long, 2-4 cm wide, the apex attenuate, terminating in a spine 5-7 mm long, densely lepidote, green to red, fleshy, serrate, with yellow spines 3-4 mm long. Scape erect, 20-37 cm long, 4-7 mm wide, densely lepidote, green; bracts of the scape erect, the lower ones foliaceous, 15-17 cm long, 1-3 cm wide, the upper ones elliptic, acuminate, 7-15 cm long, 1-2 cm wide, chartaceous, margin serrate, the apex terminating in a spine 2-4 cm long, densely lepidote, pink. Inflorescence racemose, densely white lepidote-lanate throughout the trichomes branched, erect, 11-18 cm long, 5-12 cm wide, the rachis terminating in a coma of linear bracts. Floral bracts linear, 2.5-4 cm long, 2-3 cm wide, the mucro 2-4 mm long; reflexed, the venation conspicuous, pink. Flowers patent, the pedicels 2-5 mm long, 2 mm wide. Sepals free, lanceolate, more or less symmetrical, 1.5-2.7 cm long, 4-8 mm wide, mucronate, coriaceous, with conspicuous venation, densely lepidote, dark green, the apex purple. Petals oblong-spatulate, apex recurved, obtuse, 4-4.5 cm long, 3-6 cm wide, with a fimbriate scale 4 mm long at the base, blackish-purple. Stamens and pistil exerted; filaments white, 3 cm long, the second series adnate to the base of the petals; anthers yellow, 4-8 mm long; ovary globose, 1 cm diam, densely lepidote, the style 4.5 cm long, the stigma spiral (Type II of Brown & Gilmartin 1984). Fruits globose berries 1 cm

diam (immature), densely lepidote, green to purple.

Etymology: The specific epithet refers to the town of El Tuito, Jalisco, which gives its name to the area where the new species was collected.

TYPE: MEXICO. JALISCO. Mpio. Talpa de Allende, a 20 km al E de El Tuito, sobre la terracería a la Mina del Cuale-San Sebastian, alt. ca. 1050 m., 10 Mar 1985 (fl), P. Magaña et al. 192 (Holotype: MEXU; Isotypes: MO, US).

Additional collections: MEXICO. JALISCO. Mpio. Talpa de Allende, same locality, 30 May 1985 (fl & fr), P. Magaña et al. 242 (ENCB, F, MEXU, NY, SEL).

A. tuitensis was collected in oak-pine woodland at ca alt. 1050 m. and flowers March-May. The local name for the plant is "piños".

Aechmea tuitensis differs from A. macvaughii in several important characters (Table 1), especially in its much smaller size, ovate triangular leaves, simple erect inflorescence, much larger floral bracts and entire sepals. In addition, the leaves of our plant lack the waxy glaucous covering beneath which Smith (1964) mentions in the type description of A. macvaughii.

The proposed new species clearly belongs to subgenus Podaechmea Mez because of its lepidote inflorescences, pedicellate polystichous flowers, mucronate sepals and well-developed petal-appendages (Smith & Downs 1979). Its simple erect inflorescence differs from the amply compound and lax inflorescence common to the other five species of the subgenus.

Apparently our new species is the plant of which seeds were offered for propagation by Gardner (1984). Gardner (1984) refers to A. macvaughii as a "large plant with the leaves up to one meter in length" as in the type description (Smith 1964). Gardner (1984) also describes A. macvaughii as having a simple spike, which is clearly shown in the accompanying photograph. However, according to the type description of A. macvaughii (Smith 1964), it has a pendulous, bipinnate inflorescence, as does our material collected in Colima (Lott et al. 1925) in similar habitat to that mentioned in the type description (Smith 1964). Therefore, it seems that there has been a confusion between the cultivated material made available to Gardner and the original description of A. macvaughii, which hitherto had been known only from the type locality. Additionally J. Utley (pers. comm.) has seen both our material of A. tuitensis and the material being distributed as A. macvaughii and concurs that they are the same.

Table 1

Characteristics distinguishing *A. tuitensis* and *A. macvaughii*

Characters	<i>A. tuitensis</i>	<i>A. macvaughii</i>
Leaf size	28-56 X 2-7 cm	to 120 X 16 cm
Leaf shape	ovate-triangular	ligulate
Inflorescence	erect, simple	pendulous, branched
Floral bracts	4.5 cm long	1 cm long
Petals	oblong-spatulate	lanceolate
Habitat	oak-pine woodland, alt. ca 1050 m	mixed tropical forest with <u>Brosimum</u> , alt 500-600 m

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