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A New Combination in Mexican *Mandevilla* (Apocynaceae subfamily Apocynoideae) II

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Abstract: *Echites exilicaulis* Sessé & Moç. is shown to belong in the genus *Mandevilla* and that it is a species distinct from *Mandevilla andrieuxii* (Müll. Arg.) Hemsl. Accordingly **Mandevilla exilicaulis** (Sessé & Moç.) J. K. Williams is proposed.

Keywords: *Mandevilla,* Sessé and Moçino, Apocynaceae.

In preparation for a treatment of the Apocynaceae of Mexico during the author's doctoral dissertation (Williams, 1999), an attempt was made to locate, identify and examine the type specimens of all known Mexican Apocynaceae. In July 1995 the author made a visit to the MA herbarium to examine the type collections of Sessé & Moçiño. Subsequently, numerous works have attempted to detail and catalogue the Apocynaceae collections of Sessé & Moçiño (Morales, 1996, 1998; McVaugh, 2000; Williams, 1998a, 2002). These works identified two new combinations of Apocynaceae based on priority: *Prestonia longifolia* (Sessé & Moç.) J. F. Morales [syn. *P. concolor* (S. F. Blake) Woodson] and *Mandevilla holosericea* (Sessé & Moç.) J. K. Williams (syn. *M. sertuligera* Woodson). Evidence is presented here for a third new combination for a Sessé and Moçiño name.

Mandevilla exilicaulis (Sessé & Moç.) J. K. Williams, **comb. nov.** (Fig. 1).

Echites exilicaulis Sessé & Moç., Flora Mexicana 45, 1893. TYPE: **MEXICO**: data lacking, *Sessé & Moçiño 5084* (LECTOTYPE: MA!, fide Morales, 1998).

LIANA 2–3 m long. STEMS glabrous. LEAVES 2.7–5.0 cm long, opposite, petiolate; petioles 2–5 mm long; blades 2.0–4.5 cm long, 0.7–1.8 cm wide at middle, elliptic to obovate, apex acute, base deeply cordate, with 2–4 glands at apex of petiole on adaxial surface, glabrous. INFLORESCENCE with 3–8 flowers; peduncles 3.5–5.5 cm long, glabrous; bracts minute, 1.8–2.0 mm long, 0.5 mm wide, lanceolate, straight; pedicels 8–11 mm long, glabrous, occasionally twisted. SEPALS 5, basally fused, minute, ca. 1 mm long, ca. 0.2 mm wide, narrowly triangular to lanceolate, straight, glabrous. COROLLAS infundibuliform to subcampanulate (Fig. 2a), greenish-yellow; 11–13 mm long, tubes 3–4 mm long, constricted at base of cup then flaring into cup, cup 8–9 mm long, 5–6 mm wide, externally glabrous; lobes 2 mm long, 2 mm wide, ovate, rounded at apex, erect to slightly spreading, glabrous externally. STAMENS ca. 1.5 mm long, inserted at 5 mm from base of tube where cup begins to flare, filaments ca. 0.5 mm long, pubescent, straight; anthers ca. 1.5 mm long, bases sagittate with blunt lobes. PISTIL 5–6 mm long; style 3–4 mm long, glabrous; ovary ovoid, ca. 1 mm long, glabrous; pistil head pentagonal, 2–3 mm long. NECTARIES 5, slightly shorter than ovary. FOLLICLES unknown, immature follicles moliniform, glabrous and fused at the apex, ca. 7.5 cm, suggesting that they will grow much larger, possibly to a maximum size of 18 cm in length. SEEDS unknown.

DISTRIBUTION AND ECOLOGY: Tropical deciduous forest and pine-oak forests of the western pacific coast of Mexico, 800–2000 m, (Fig. 3). Associated genera include *Acacia, Guazuma, Ipomoea.*

REPRESENTATIVE SPECIMENS EXAMINED: **MEXICO. Colima:** Manzanillo, 3.5

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FIG. 1. Lectotype of *Echites exilicaulis* (MA).

km N of Los Cedros, road to Huiscolote, 27 Nov 1981, *Lott 859* (MEXU, MO). **Jalisco:** Mpio. Zapotitlán, Rancho El Jabalí, 20 km N of Colima in the SW foothills of the Volcán de Colima, road to El Cañon from La Becerrera (19° 27′ N, 103° 43.66′ W), 1100 m, 8 Oct 1991, *L. Vázquez 1401* (MO); Mpio. Autlán, 1–2 km SSE of Ahuacapán (19° 39′ 50″ N, 104° 18′ 45″ W), 20 Feb 1990, *L. Guzmán* & *R. Cuevas 910*

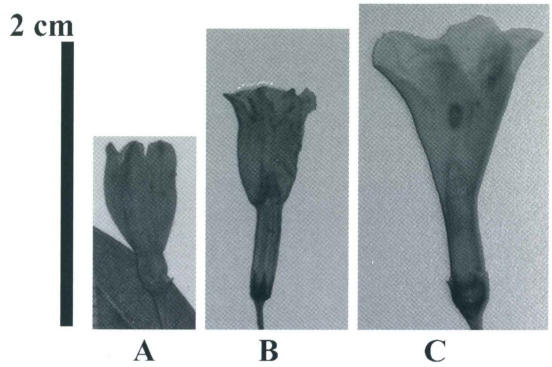


FIG. 2. Corollas of A. *M. exilicaulis* (*Nuñez 5133,* WIS). B. *M. andrieuxii* (*Marcks 1002,* TEX). C. *M. oaxacana* (*Munn 1306* MEXU, TEX).

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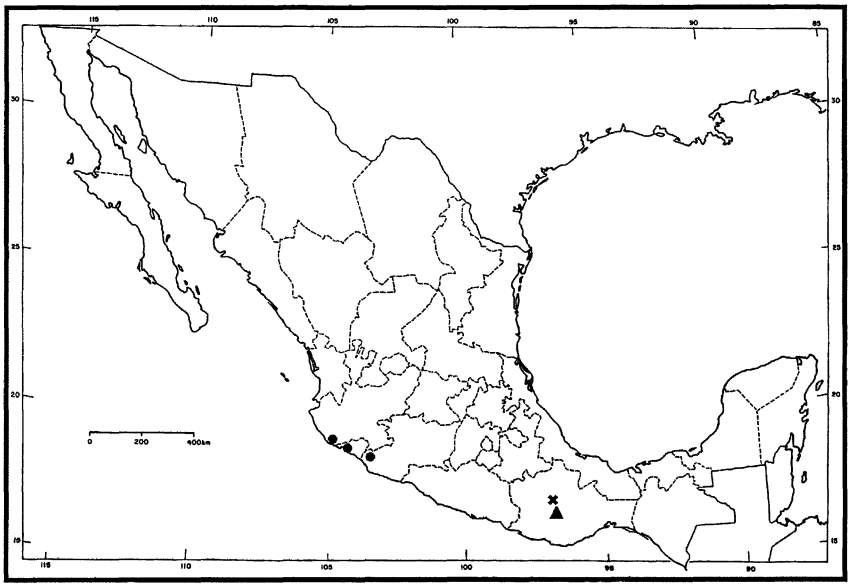


FIG. 3. Map of *Mandevilla exilicaulis* (circles) and *M. andrieuxii* (triangle, type locality indicated by x).

(WIS); Mpio. Chiquilistlán, brecha de Ojo de Agua a Chiquilistlán (103° 52′, 20° 06′–13′ W), 4 Dec 1986, *J. Núñez 5132* (WIS); Mpio. Chiquilistlán, brecha de Ojo de Agua a Chiquilistlán (103° 52′ N, 20° 06′–13′ W), 4 Dec 1986, *J. Núñez 5133* (WIS). **Michoacán:** Coalcomán, 1000 m, 29 Dec 1938, *Hinton* et al. *12834* (US); Sierra Madres, 1100 m, 8 Nov 1898, *Langlassé 597* (G, P).

In his synopsis of *Mandevilla,* without explanation, Morales (1998) lectotypified *Echites exilicaulis* Sessé & Moç. and placed the species in synonymy under *Mandevilla andrieuxii* (Müll. Arg.) Hemsl. The sheet (*#5084*) that Morales designated as the lectotype of *E. exilicaulis* is clearly labeled *Echites glaberrima* (Fig. 1). McVaugh (2000), in his conspectus on the types of Sessé & Moçiño, stated that he was unable to locate a sheet labeled *Echites exilicaulis.* McVaugh did not indicate that he viewed Morales' lectotypification as invalid, however, he also did not provided evidence that he was in support of the designation. The description (Sessé & Moçiño, 1893) of *Echites exilicaulis* Sessé & Moç. is as follows:

"*Echites caule exili, volubili, foliis subcordatis, oblongis, acutis, floribus racemosis.*"

The description on the sheet (Fig. 1) bears almost no resemblance to the actual description of *E. exilicaulis.* It reads:

"*Echites racemes simplicibus, corollas campanularis, folii cordato-oblongis, acuminates glaberrimis.*"

There are, however, two elements that the description of *E. exilicaulis* and sheet #5084 have in common. Both state that the plant is racemous and bears cordate leaves. These two descriptors alone seem vague, however, when found together on one plant, they can only refer to a species of *Mandevilla,* the only neotropical Apocynaceae genus with species that possess cordate leaves and racemous inflorescences (Williams, 1999). The only other species of *Echites* with cordate leaves and racemous inflorescences described by Sessé and Moçiño is *E. holosericea* (= *Mandevilla holosericea* (Sessé & Moç.) J. K. Williams). With the exception of the lectotype of *E. holosericea* no other specimen of *Echites* in the Sessé & Moçiño collections has

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cordate leaves and a racemous inflorescence. These observations provide evidence and support for the lectotypification of *Echites exilicaulis* by Morales (1998).

An examination of the type material of both *Mandevilla exilicaulis* and *M. andrieuxii* reveals several characters that serve to distinguish the two species. The leaves of the type of *M. exilicaulis* (Fig. 1) are glabrous, as is the external portion of the corolla, while both the leaves and corolla of *M. andrieuxii* are densely pubescent. In addition, the species differ in corolla dimension. *Mandevilla exilicaulis* has a subcampanulate corolla with a 3–4 mm long tube flaring into 8–9 mm long cup, while *M. andrieuxii* has infundibuliform corollas with a tube 8–9 mm long flaring into a cup 8–9 mm long (Fig. 2). In addition, *M. exilicaulis* has peduncles 3.5–5.5 cm long (vs. 1.5–3.0 cm long in *M. andrieuxii*) and pedicels 8–11 mm long (vs. 3–5 mm in *M. andrieuxii*). Finally, an examination of herbarium material indicates that the specimens identified as *M. exilicaulis* have a distribution allopatric from those of *M. andrieuxii* (Fig. 3). Morales (1998) cited *Lott 859* (MEXU, MO) as a specimen of his *M. andrieuxii.* Close examination reveals it to be a specimen of *M. exilicaulis.*

Woodson annotated the type specimen as *Mandevilla subcampanulata* Woodson sp. nov. (Fig. 1). This name was never validly published and remains a nom. nud. However, it has been used to annotate herbarium specimens (e. g., *Langlassé 597* G, P) by subsequent workers.

Núñez 5133 (WIS) is the only specimen examined with fruits. Unfortunately, the fruits are immature, but it is possible to observe whether they are moliniform, glabrous and fused at the apex. When immature, the fruits are 7.5 cm long, suggesting that they will grow much larger, possibly up to 18 cm long.

It is important to emphasize that this species represents a heretofore undesignated species in *Mandevilla.* With the addition of this species the number of recognized species of *Mandevilla* in Mexico is thirteen (Morales, 1998; Williams, 1998a, 1998b, 1999).

Key to Identifying the Mexican Species of *Mandevilla* Related to *M. exilicaulis*

1. Corolla 20–30 mm long, tube 10–14 mm long; petioles 4–8 mm long . . . . . *M. oaxacana* (A. DC.) Hemsl. (Fig. 2c)
1. Corolla 8–20 mm long, tube 2–9 mm long; petioles 3–22 mm long
   2. Petioles of mature leaves 10–16 mm long; leaf base distinctly cordate . . . . . *M. convolvulacea* (A. DC.) Hemsl.
   2. Petioles of mature leaves 2–5 mm long; leaf base cordate to obtuse
      3. Leaves densely pubescent underneath, base obtuse; peduncle 1.5–3 cm long; pedicels 3–5 mm long; corolla tube 8–9 mm long, pubescent externally; Oaxaca . . . . . *M. andrieuxii* (Müll. Arg.) Hemsl.
      3. Leaves glabrous, bases cordate; peduncle 3.5–5.5 cm long; pedicels 8–11 mm long; corolla tube 3–4 mm long, glabrous externally; Jalisco, Guerrero and Michoacán . . . *M. exilicaulis* (Sessé & Moç.) J. K. Williams

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