

**MIMOSA MONCLOVENSIS (LEGUMINOSAE),  
A NEW NAME FOR A TAXON IN SER. QUADRIVALVES  
IN THE SOUTHERN USA AND NORTHEASTERN MEXICO**

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**ABSTRACT**

As a result of the preparation of a treatment of the genus *Mimosa* (Leguminosae) for the Flora of North America North of Mexico, as well as from a revision of species included in the sections and series of *Mimosa* for a phylogenetic study of the genus, a new name at specific rank is proposed for a taxon in ser. *Quadrivalves*. The nomenclatural status of other taxa in this series is discussed as well.

**RESUMEN**

Como resultado de la preparación de un tratamiento del género *Mimosa* (Leguminosae) para la Flora de Norteamérica al Norte de México, así como de una revisión de las especies incluidas en las secciones y series de *Mimosa* para un estudio filogenético del género, se propone un nombre nuevo a nivel específico para un taxon de la serie *Quadrivalves*. El estatus nomenclatural de otros taxa de esta serie se discute también.

As a result of the preparation of a treatment of the genus *Mimosa* L. (Leguminosae) for the Flora of North America North of Mexico, as well as from a revision of species included in the sections and series of *Mimosa* for a phylogenetic study of the genus, a new name at the specific rank is proposed for *M. subinermis* (S. Wats.) B.L. Turner, a member of *Mimosa* ser. *Quadrivalves*, as this is a later homonym of *M. subinermis* Benth.

The genus *Mimosa* in the Flora of North America includes 20 species, 8 of them members of *Mimosa* sect. *Batocaulon* DC. ser. *Quadrivalves* Barneby. Series *Quadrivalves* was established by Barneby (1991) to include the whole genus *Schrankia* Willd., which previously had been maintained apart from *Mimosa* because of its tetragonal, unarticulated legumes; the fruits are apparently tetragonal because the margin usually is as wide as or wider than the valves; however, this morphology also occurs in diverse groups of *Mimosa*, such as in some species of ser. *Leiocarpae* Benth., *Pachycarpae* Benth., and *Stipellares* Benth. All known taxa of *Schrankia* were incorporated by Barneby as varieties of *M. quadrivalvis* L. We agree with the treatment of *Schrankia* within *Mimosa*, while we disagree in considering this group of taxa as varieties of a single species (Grether 2000; Simon et al. 2011).

Several infraspecific combinations under *Mimosa quadrivalvis* proposed by Barneby (1991) have been replaced by new names at specific rank, such as *M. candollei* R. Grether, *M. robusta* R. Grether, and *M. rupertiana* B.L. Turner; some other varieties of *M. quadrivalvis* have been recognized at specific rank and transferred from *Leptoglottis* DC., *Morongia* Britton, or *Schrankia*, such as *M. hystricina* (Small) B.L. Turner, *M. latidens* (Small) B.L. Turner, *M. nuttallii* (DC.) B.L. Turner, and *M. subinermis* (S. Wats.) B.L. Turner (Grether 2000; Turner 1994a, 1994b, 1995).

Concerning other taxa in ser. *Quadrivalves*, the oldest name under *Mimosa* has been recovered: *M. tetragona* Poir. 1810 (Grether 2000), or proposed to be placed in use again: *M. microphylla* Dryand. 1797 and *M. roemeriana* Scheele 1848 (R. Grether, unpubl. manuscript).

*Mimosa subinermis* (S. Wats.) B.L. Turner (1994) is a later homonym of *Mimosa subinermis* Benth. (Bentham 1841). Barneby (1991) placed *Schrankia subinermis* S. Wats. in the synonymy of *M. quadrivalvis* var. *nelsonii* (Britton & Rose) Barneby, the latter based on *Leptoglottis nelsonii* Britton & Rose. We consider that this taxon should be treated at specific rank. The combination *M. nelsonii* is unavailable, as this name was published by Robinson (1898) for another Mexican taxon, which was placed at infraspecific rank as *M. tricephala* Schldt. & Cham. var. *nelsonii* (B.L. Rob.) Chehaibar & R. Grether (Grether 2000). Therefore, a new name is proposed to replace the later homonym *Mimosa subinermis* (S. Wats.) B.L. Turner.

***Mimosa monclovensis*** R. Grether & M.F. Simon, **nom. nov.** Replaced name: *Mimosa subinermis* (S. Wats.) B.L. Turner, *Phytologia* 76: 424. 1994. Basionym: *Schrankia subinermis* S. Wats., *Proc. Amer. Acad. Arts* 17: 350. 1882. *Leptoglottis subinermis* (S. Wats.) Britton & Rose, *N. Amer. Fl.* 23(3): 141. 1928, non *Mimosa subinermis* Benth., *J. Bot. (Hooker)* 4: 385. 1841. **TYPE: MEXICO. Coahuila.** [Mpio. Monclova]: mountains 24 mi N of Monclova, 1–6 Sep 1880, *E. Palmer* 302 (holotype: GH 00063784; isotypes: G 00367736, K 000082477, NY 00003296, PH 00022629, US 00000782, US 00000783, YU 001420).

*Mimosa quadrivalvis* L. var. *nelsonii* (Britton & Rose) Barneby, *Mem. New York Bot. Gard.* 65: 302. 1991. *Leptoglottis nelsonii* Britton & Rose, *N. Amer. Fl.* 23(3): 142. 1928. **TYPE: MEXICO. Coahuila.** [Mpio. Sabinas]: Sabinas, 21 May 1902, *E.W. Nelson* 6230 (holotype: US 00000770; isotypes: GH 00065825, NY 00002413, NY 00002414).

*Mimosa monclovensis* is characterized by leaves with 9–14 pairs of linear leaflets per pinna, capitula 10–12 mm in diam. with up to 40 flowers, corolla lobes 1/4–1/3 of corolla length, and sessile pods, (4.5–)7–9(–10) cm x 4–4.5(–5) mm, apex rostrate, the rostrum 5–10 mm. This species grows in dry sandy or gravelly places, at elevations of 100–200 m, in Texas and at 600–650 m in northeastern Mexico (Coahuila). It is clearly distinguished from *M. latidens*, because the latter produces leaves with 6–9 pairs of linear-oblong to oblong leaflets per pinna, capitula 10–15(–18) mm in diam. with up to 70 flowers, corolla lobes 1/2 of corolla length, and stipitate pods, 2.5–6 cm x 2.5–4 mm, apex rostrate, the rostrum 2–6 mm. This latter species also occurs on sandy loam at elevations of 0–650 m in Texas and Louisiana, and it is common at 650–1950 m in the states of Coahuila, Nuevo León, San Luis Potosí, and Tamaulipas, northern Mexico.

On the other hand, *Mimosa subinermis* Benth. was reduced by the same author (Bentham 1875, p. 408) to the synonymy of *M. rupestris* Benth., a species known from southern Rio Grande do Sul, Brazil, and from adjacent Uruguay (Rivera-Frontera). *Mimosa rupestris* is included in sect. *Mimosa* ser. *Mimosa* subser. *Obstrigosae* (Benth.) Barneby (Barneby 1991), and it is clearly distinguished from all members of ser. *Quadrivalves* by stems, petioles, and peduncles densely strigose with retrorsely appressed setae, by tetramerous, haplostemonous flowers, and by strigose, 3–4-articulate pods. It occurs in open rocky hillsides and in dry stony campo.

In the case of several varieties of *Mimosa quadrivalvis* — var. *diffusa* (Rose) L.S. Beard ex Barneby, var. *floridana* (Chapm.) Barneby, var. *jaliscensis* (J.F. Macbr.) L.S. Beard ex Barneby, and var. *urbaniana* Barneby, further study is needed in order to determine their taxonomic status. After collecting and examining material from the USA and Mexico (Grether, unpubl. manuscript; Martínez-Bernal et al. 2008), we consider that *M. quadrivalvis* var. *quadrivalvis* is restricted to the coastal plain of the state of Veracruz, Mexico, with northern limit in the region of Czones and southern limit in the region of Santiago Tuxtla. This latter taxon is recognized by capitula 15–20 mm in diam. with

70–100 flowers, and by glabrous or tomentulose, unarticulated prickly legumes 4–5(–8) cm long with margin 4–5 mm wide and the apex acute or shortly apiculate.

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