

MIMOSA DIVERSIPILA VAR. SUBGLABRISETA (MIMOSOIDEAE, LEGUMINOSAE), A NEW RECORD FOR THE FLORA OF PARAGUAY

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Resumen: *Mimosa diversipila* var. *subglabriseta* (Mimosoideae, Leguminosae), una nueva cita para la flora de Paraguay. Reportamos por primera vez la presencia de *Mimosa diversipila* M. Micheli var. *subglabriseta* Barneby & Fortunato en Paraguay. Una revisión de la descripción inicial de Barneby y fotografías de uno de los ejemplares de Paraguay se incluyen en este documento.

Palabras clave: Leguminosae, *Mimosa*, *Mimosa diversipila*, Paraguay.

Summary: The presence of *Mimosa diversipila* M. Micheli var. *subglabriseta* Barneby & Fortunato is now reported for first time in Paraguay. A revision of Barneby's initial description of the variety and photographs of one of the Paraguayan specimens are given in this paper.

Key words: Leguminosae, *Mimosa*, *Mimosa diversipila*, Paraguay.

INTRODUCTION

Mimosa diversipila M. Micheli was first described from a specimen from Paraguay (Micheli, 1883). Later, Burkart (1948) took this species from the series *Lepidotae* where Micheli originally described it and reassigned it into the series *Meticulosae* based on its plumose hairs. Barneby (1991), noting the uncertain circumscription of the series *Meticulosae*, decided to include the species of this series into the series *Mimosa* and assigned *M. diversipila* into the subspecies *Brevipedes* Barneby. Burkart (1948) noted a high degree of morphological variability within *M. diversipila* and Barneby (1991) formally recognised two varieties, with var. *diversipila* distributed in Argentina (Corrientes and Misiones provinces), Paraguay (Alto Paraná, Alto Paraguay, Amambay, Caaguazú, Caazapá, Canindeyú, Central, Concepción, Cordillera, Guairá, Misiones,

Paraguarí departments) and Brazil (Mato Grosso do Sul state) and *M. diversipila* var. *subglabriseta* Barneby & Fortunato restricted to Misiones and Corrientes provinces in Argentina.

Examination of herbarium material revealed further specimens of *M. diversipila* var. *subglabriseta* from Paraguay. The specimens revised from Paraguay and adjacent areas of Argentina matched var. *subglabriseta* in its description. However, their leaflet indumentum differed from the descriptions of the varieties recognised by Barneby (1991). In this paper we clarify the taxonomic placement of these specimens, re-examining type and original material to address errors in the key provided by Barneby that have resulted in the earlier misidentification of Paraguayan material. A revised description and photographs of *M. diversipila* var. *subglabriseta* are provided.

TAXONOMICAL TREATMENT

***Mimosa diversipila* var. *subglabriseta* Barneby & Fortunato. *Mem. New York Bot. Gard.* 65:705. 1991. Type: Argentina. Misiones, Capital, Arroyo Itaembé, 17-I-1966, Krapovickas & Cristóbal 12094 (holotype: US; isotype: CTES!) (Figs. 1, 2).**

Unarmed, virgately straightshrub ca. 15 – 20 dm

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Fig. 1. *Mimosa diversipila* var. *subglabriseta* collected in Dpto. Itapúa: Isla Yacireta, 19-II-2004, M. Peña - Chocarro et al. 1777 (BM 000817139).



Fig. 2. *Mimosa diversipila* var. *subglabrieta*. **A:** Leaflet abaxial surface 1x. **B:** Pods 0.8x. **C:** Flower 3x. **D:** Ovary 5x.

tall, growing in cluster from xylopodium, terminal long pluricapitulate raceme. The dark brown striate stems and the inflorescence axes covered with arborescently plumose setae with dilated golden based and white tips, 0.5 – 1.2 mm long; apical areas more densely covered; the olive leaflets and stipules densely covered by golden plumose hairs on both surfaces, slightly more dense in the abaxial surface, ciliate on the margins. Stipules persistent, lanceolate 2 – 4 × 1 mm, 1 nerved above and 3 nerved beneath. Leaf-stalks very reduced, 1 – 2.5 × 0.5 mm; pinnae 1-jug, the rachis 45 – 70 mm, the interfoliar segments 1 – 2 mm; leaflets 14 – 30-jug, the ones in the middle of the rachis 4 – 10 × 2 – 4 mm, lamina elliptic, base semicordate, apex apiculate, 1 – 2(3) nerved, midrib displaced to one side; paraphyllidia setiform. The terminal inflorescence is a raceme of capitula, simple or few branched; peduncles 9 – 12 mm, densely covered with plumose golden hairs; flowers 4-merous, 2 – 2.5 mm long; cup shape calyx semi-pappiform, one sixth of the corolla, ca. 0.1 mm long; the coriaceous petals with few simple hairs on the limb, ca. 0.6 mm long; filaments ± twice the size of the corolla, looking free when rehydrated; adnate staminodia have been seen on a couple of corolla lobes; ovary very hairy, styles longer than filaments covered with few spread black simple short hairs

and bearing 2 small glands just under the stigma (only seen twice). Pods 8 – several per capitulum, sessil, 6 – 15 × 3 – 5 mm, (1)3 – 4-seeded, the replum less than 1 mm wide with long castaneous-yellowish plumose hairs, some dilated resembling prickles, valves with very dense white plumose hairs, the articles individually dehiscent.

Selected examined material: PARAGUAY. *Dpto. Itapúa*: Isla Yaciretá, 19.II.2004, M. Peña - Chocarro et al. 1777 (BM, CTES 411457); Pirapó (Punta Fierro), 05.XII.1890, Sellow s.n. (LP 13147); Salitre Cué, 25.I.1944, Pavetti & Rojas 10973 (SI); Yacyretá Dam Island: San Miguel, 24-X-1999, E. M. Zardini & R. Gamarra 52064 (BAB); same locality, 05.XII.2002, E. M. Zardini & R. Gamarra 59279 (BAB). ARGENTINA. *Prov. Misiones*. *Dpto. Capital*: Posadas, 01-II-1960, Martínez Crovetto 8876 (BAB).

Obs.: Barneby (1991) separated the two varieties of *M. diversipila* on the basis of their indumentum. Var. *subglabrieta* was considered minutely scaberulous toward the base and smooth on the leaflets. In var. *diversipila* the stems are plumose from the base up to or beyond the middle and the setae on leaflets are also plumose but often becoming substellate. However, the leaflets of



Fig. 3. Distribution map of *Mimoso diversipila* var. *subglabriseta* in Paraguay.

the type of *M. diversipila* var. *subglabriseta*, and indeed of all specimens of this variety observed possess scaberulous setae; they are not smooth as Barneby (1991) mentioned in his key to varieties. This has resulted in confusion regarding the identity of *M. diversipila* var. *subglabriseta* and specifically with respect to Paraguayan material. The two varieties can be reliably distinguished on the basis of their leaflet indumentum. Using this character to distinguish the two varieties, it is apparent that *M. diversipila* var. *subglabriseta*, whilst considered an endemic of Argentina; also occurs in adjacent areas of South Paraguay (Itapúa Departament, Fig. 3).

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BIBLIOGRAPHY

- BARNEBY, R. C. 1991. *Sensitivae Censitae: a description of the genus Mimosa Linneaus (Mimosaceae) in the New World*. *Mem. New York Bot. Gard.* 65: 1–835.
BURKART, A. 1948. Las Especies de *Mimosa* de la flora argentina. *Darwiniana* 8: 9-231.
BURKART, A. 1964. Sinopsis de las especies de “*Mimosa-Lepidotae*”. *Darwiniana* 13: 343-427.
MICHELI, M., 1883. Contributions à la flore du Paraguay. Légumineuses. *Mem. Soc. Phys. Genève* 28(7): 57.

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