



Notes on the taxonomy and nomenclature of *Monotrema bracteatum* (Rapateaceae)

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RESUMO

Notas sobre a taxonomia e nomenclatura de *Monotrema bracteatum* (Rapateaceae). *Monotrema* é um pequeno gênero de Rapateaceae que abrange quatro espécies. Esta nota discute aspectos taxonômicos e nomenclaturais de *Monotrema bracteatum* Maguire, uma espécie recentemente registrada para o Brasil, que ocorre em campinas de areias brancas no estado de Roraima. .

PALAVRAS-CHAVE: Amazônia, Brasil, Escudo das Guianas, Poales, Roraima

ABSTRACT

Notes on the taxonomy and nomenclature of *Monotrema bracteatum* (Rapateaceae). *Monotrema* is a small genus of Rapateaceae comprising four species. This note discusses taxonomic and nomenclatural aspects of *Monotrema bracteatum* Maguire, a species recently recorded for Brazil, in white sand campinas in the state of Roraima.

KEY WORDS: Amazonia, Brazil, Guiana Shield, Poales, Roraima

INTRODUCTION

Monotrema Körn. is a small genus of Rapateaceae and comprises four species and an interspecific hybrid. These taxa occur in the Guiana Shield region, especially in southern Venezuela and adjacent regions of Colombia and Brazil (Berry 2004).

Monotrema bracteatum Maguire was described based on collections from wet savannas from Yapacana, Amazonas State, Venezuela. Later, Maguire (1982), in his treatment of Rapateaceae for the Flora of Venezuela, recognized an infraspecific taxon, named *M. bracteatum* subsp. *major* Maguire. This taxon was described for few specimens from the savannas of Rio Atabapo, also in the Venezuelan State of Amazonas. Since then, the name *M. bracteatum* subsp. *major* has been accepted and used in floristic treatments (e.g.,

Berry 2004). According to Maguire (1982) and Berry (2004), *M. bracteatum* subsp. *major* differed from *M. bracteatum* subsp. *bracteatum* in having both wider leaves and primary (outermost) bracts of the inflorescence (both > 6.0 mm wide).

During the ongoing floristic study of Rapateaceae in Roraima State, Brazil (Rodrigues & Flores 2010), I participated of an expedition to Serra da Mocidade National Park (SMNP), and observed a population of *Monotrema bracteatum* in the field. Other new collections of *M. bracteatum* are now available in Brazilian herbaria, specially from the adjacent Viruá National Park (VNP). In this note, I analyzed collections at MIRR and UFRR, and additionally, digitalized images of types and other specimens from NY, US, K, RB, UEC.

RESULTS AND DISCUSSION

Monotrema bracteatum has been recently added to Brazilian flora (Oriani & Scatena 2013). Previously, only two species of *Monotrema* had been recorded in Brazil (Berry 2004, Monteiro 2014), *M. aemulans* Körnicke and *M. xyridoides* Gleason. The primary bracts of the inflorescence provide the two diagnostic characters of *M. bracteatum* (Figure 1): they range from 20-35 mm long and are longer than the heads (Maguire 1958, Berry 2004). *Monotrema bracteatum* comprises perennial herbs 30-60 cm high, with outer bracts green, inner white, and petals pale yellow. It occurs in lowland partially open scrub savannas, on wet or flooded soils. Especially in Brazil, it is found in Rio Branco basin campinas, in open grassy to shrubby formations on white sandy soils.

A nomenclatural issue arose when reading the protologue in Maguire (1982). According to McNeill *et al.* (2012: art. 39), *M. bracteatum* subsp. *major* was not validly published. Maguire (1982) described it in Spanish ("Láminas de la hoja 6,0-12,0 mm. de ancho, brácteas involucrales primarias 6,0-9,0 mm. de ancho") and did not provide a reference to a previous Latin description or diagnosis. Another observation is that the infraspecific epithet should be "majus", since *Monotrema* is a neuter noun according to McNeill *et al.* (2012: art. 24.2.).

Regarding the features used by Maguire (1982) and Berry (2004) to separate the two subspecies of *M. bracteatum* from each other, I observed instances of overlapping in the leaf width and primary bract width. This overlap occurs in specimens from different Roraiman sites, and particularly collections from SMNP were difficult to fit conveniently under any subspecies. For example, different specimens (Schütz Rodrigues *et al.* 2450) at UFRR and MIRR possessed leaves with 3–8mm wide, and primary bracts with 4.5–8.3 mm wide (Figure 1). A similar intermediate condition was observed in some specimens from VNP (e.g., Barbosa & Costa 1281; Damasco *et al.* 1317).

After having checked the type material of both subspecies, there is evidence for considering the Venezuelan materials as extreme forms of a more geographical spread and variable taxon. Since I have not been able to recognize infraspecific taxa within *M. bracteatum*, I refrain from validating *M. bracteatum* subsp. *major*.

Monotrema bracteatum Maguire, Memoirs of the New York Botanical Garden 10: 47. 1958.

Type: VENEZUELA. AMAZONAS: Cerro Yapacana, Rio Orinoco; Yapacana Savanna II, 20 Nov. 1953, B. Maguire, J.J. Wurdack & G.S. Bunting 36624 (holotype NY!, isotypes: K!, NY!, RB!, US!, VEN).

Monotrema bracteatum var. *major* Maguire in Luces & Steyermark, Flora de Venezuela 11 (2): 175. 1982, nom. nud.

Additional specimens examined: BRAZIL. RORAIMA: Caracará, Parque Nacional da Serra da Mocidade, Rio Capivara, 8 Dec. 2013, R. Schütz Rodrigues *et al.* 2450 (MIRR, UFRR); Parque Nacional do Viruá, 25 Jan. 2011, S.M. Costa & K.G. Cangani 887 (UEC); Parque Nacional do Viruá, Rio Anauá, 27 Mar. 2011, T.D.M. Barbosa & S.M. Costa 1417 (INPA, UEC); Parque Nacional Viruá, Estrada da perdida, Trilha, 22 Feb. 2013, G. Damasco *et al.* 1317 (INPA); Parque Nacional do Viruá, 22 Jul. 2010, T D.M. Barbosa & S.M. Costa 1281 (INPA, UEC, UFRR); Parque Nacional do Viruá, 4 Dec. 2009, N.C. Dávila *et al.* 5845 (INPA, UFRR); VENEZUELA. AMAZONAS: Cerro Yapacana, Río Orinoco, Yapacana savanna III, 31 Dec. 1950, B. Maguire *et al.* 30490 (RB); Rio Atabapo, frequent in Sabana Caname on left bank of Cano Caname (Rio Atabapo 5 km below Guarinumó), 8 Jun. 1959, J.J. Wurdack & L.S. Adderley 42853 (RB); in Sabana Cumare on right bank of Caño Cumare (20 kilometers above San Fernando de Atabapo), 5 Aug. 1959, J.J. Wurdack & L.S. Adderley 43771 (NY, "holotype" of *M. bracteatum* subsp. *major*).

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Figure 1. *Monotrema bracteatum* Maguire (Rapateaceae). Specimen from the Serra da Mocidade National Park, Roraima, Brazil (Schütz Rodrigues *et al.* 2450, MIRR).

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