Lectotypification of Bromelia poeppigii and B. reversacantha (Bromeliaceae)

Authors: Forzza, Rafaela Campostrini, Monteiro, Raquel Fernandes, and Zappi, Daniela

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De herbario berolinensi notulae No. 49

RAFAELA CAMPOSTRINI FORZZA[1*], RAQUEL FERNANDES MONTEIRO[1] & DANIELA ZAPPI[2]

Lectotypification of *Bromelia poeppigii* and *B. reversacantha (Bromeliaceae)*

Abstract

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During World War II part of the material stored at the herbarium of the Natural History Museum Vienna (W) was destroyed by fire, including the majority of the *Bromeliaceae* collection and some types of *Bromelia* names. In the cases of *B. poeppigii* and *B. reversacantha* original material accompanied by anatomical drawings relevant for the delimitation of the species has now been discovered at the herbarium of the Botanic Garden and Botanical Museum Berlin-Dahlem (B). Lectotypes are designated and, in the case of *B. reversacantha,* an epitype is selected.

Additional key words: *Bromelioideae,* lectotype, epitype, nomenclature, South America

Introduction

Bromelia, first published by Linnaeus in the Species Plantarum (Linnaeus 1753), typifies the family name *Bromeliaceae* and is in turn typified by the name *B. karatas* L. (Grant 1998). *Bromelia* comprises approximately 56 species (Luther 2006), distributed from Mexico to the Plata river in Argentina, showing two centres of diversity, one in Central America and the other in the Brazilian Shield. *Bromelia* species are easily recognizable by their rosettes of leaves with curved spines along the margin, the leaf sheath covered with fine linear scales, fleshy petals without appendages, filaments fused into a tube and flattened, naked seeds (Mez 1894; Smith & Downs 1979).

Many type specimens of *Bromeliaceae* names were deposited in the herbarium of the Natural History Museum Vienna (W), one of the most important botanical collections in the world. However, during World War II, part of the material stored at that herbarium was destroyed by fire, including the majority of the *Bromeliaceae* collection (Till 1994) and some types of *Bromelia* names.

While researching at the herbarium of the Botanic Garden and Botanical Museum Berlin-Dahlem (B), fragments of the original material of *Bromelia poeppigii* and *B. reversacantha,* of which the holotypes at Vienna are destroyed, were found. Accompanied to these fragments are excellent drawings, including anatomical diagrams, made by Mez, who originally described these species (Mez 1894). Anatomical characters have proved valuable for taxonomic delimitation within the subfamily (e.g. Sajo & al. 1998; Aoyama & Sajo 2003; Proença & Sajo 2004; Sousa & al. 2005), and the original diagrams by Mez show systematically important characters, such as secretory channels, two-celled pedicles of the leaf scales, position of stomata and thickened mechanical cells of the hypodermis. Therefore, we here designate lectotypes for the names of these two species according to the International Code of Botanical Nomenclature (McNeill & al. 2006). The lectotypes at B are available online as high resolution images through the Digital Herbarium (Röpert 2000+).

1 Jardim Botânico do Rio de Janeiro, Pacheco Leão 915, 22460-30, Rio de Janeiro, RJ, Brazil; *e-mail: rafaela@jbrj.gov.br (author for correspondence).
2 Royal Botanic Gardens, Kew. Richmond, Surrey, TW9 3AE, UK.

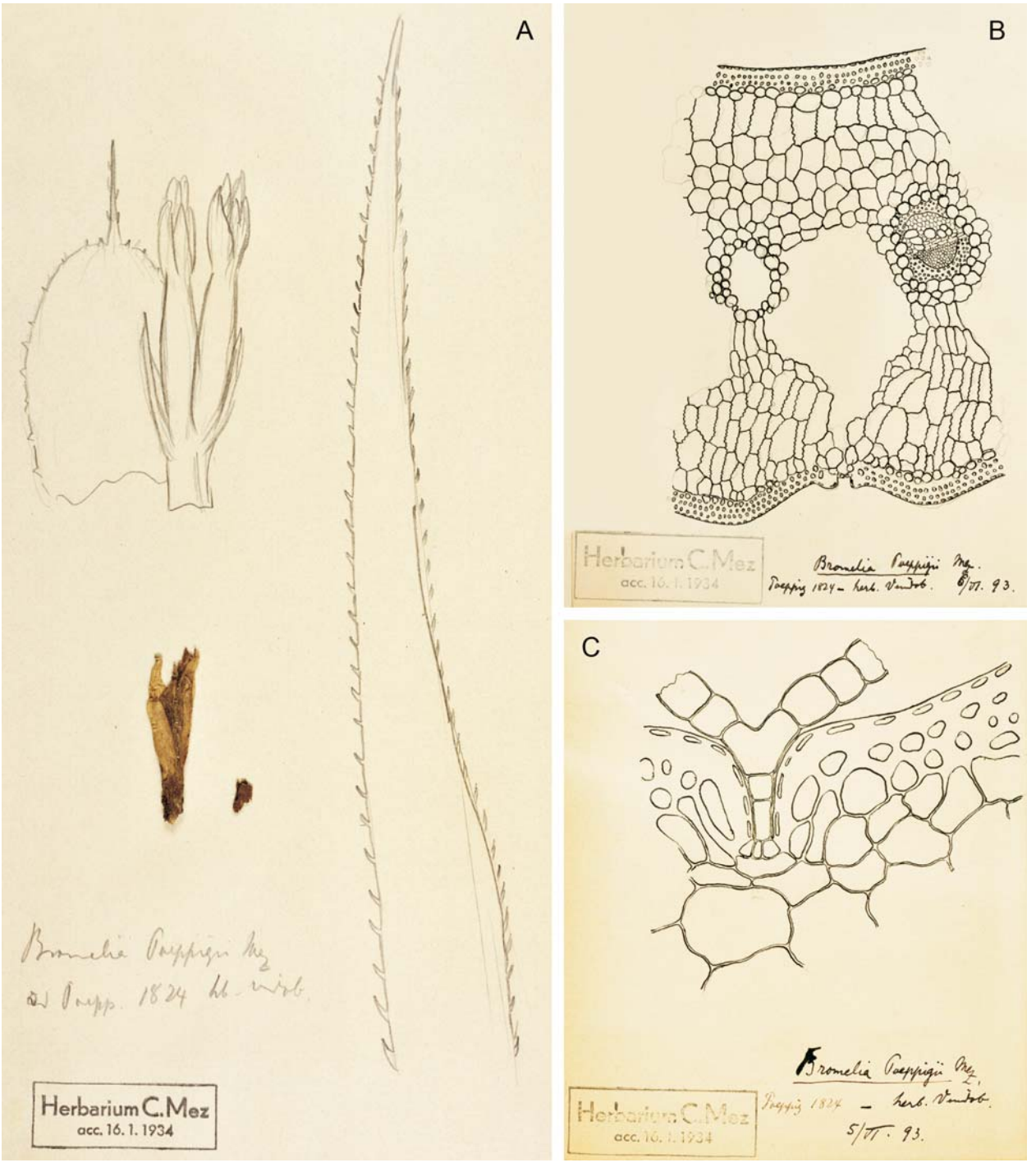

Fig. 1. *Bromelia poeppigii* – A: *Poeppig 1824,* detail of the lectotype (B 100248919); B-C: anatomical diagrams by Mez, details of sheet B 100271786.

Typification

Bromelia poeppigii Mez in Martius & al., Fl. Bras. 3(3): 188. 1894. – Type: Peru, San Martin, Tocache, 1830, *Poeppig 1824* (holotype: W [destroyed], F [photo]; lectotype [designated here]: B 100248919, Fig. 1A).

A second herbarium sheet of the collection *Poeppig 1824* at B (B 100271786) carries no plant material but two anatomical diagrams (Fig. 1B-C).

Although the holotype of this species was collected in Peru, the name was published in the Flora Brasiliensis by Mez (1894). In fact, this is one of the few species of *Bromelia* known from the Amazon region. The difficulty of collecting specimens of *Bromelia* due to their size, spination and succulence and the relatively few comprehensive collecting expeditions to the region have considerably hindered the study of *Bromeliaceae* in the Brazilian Amazon.

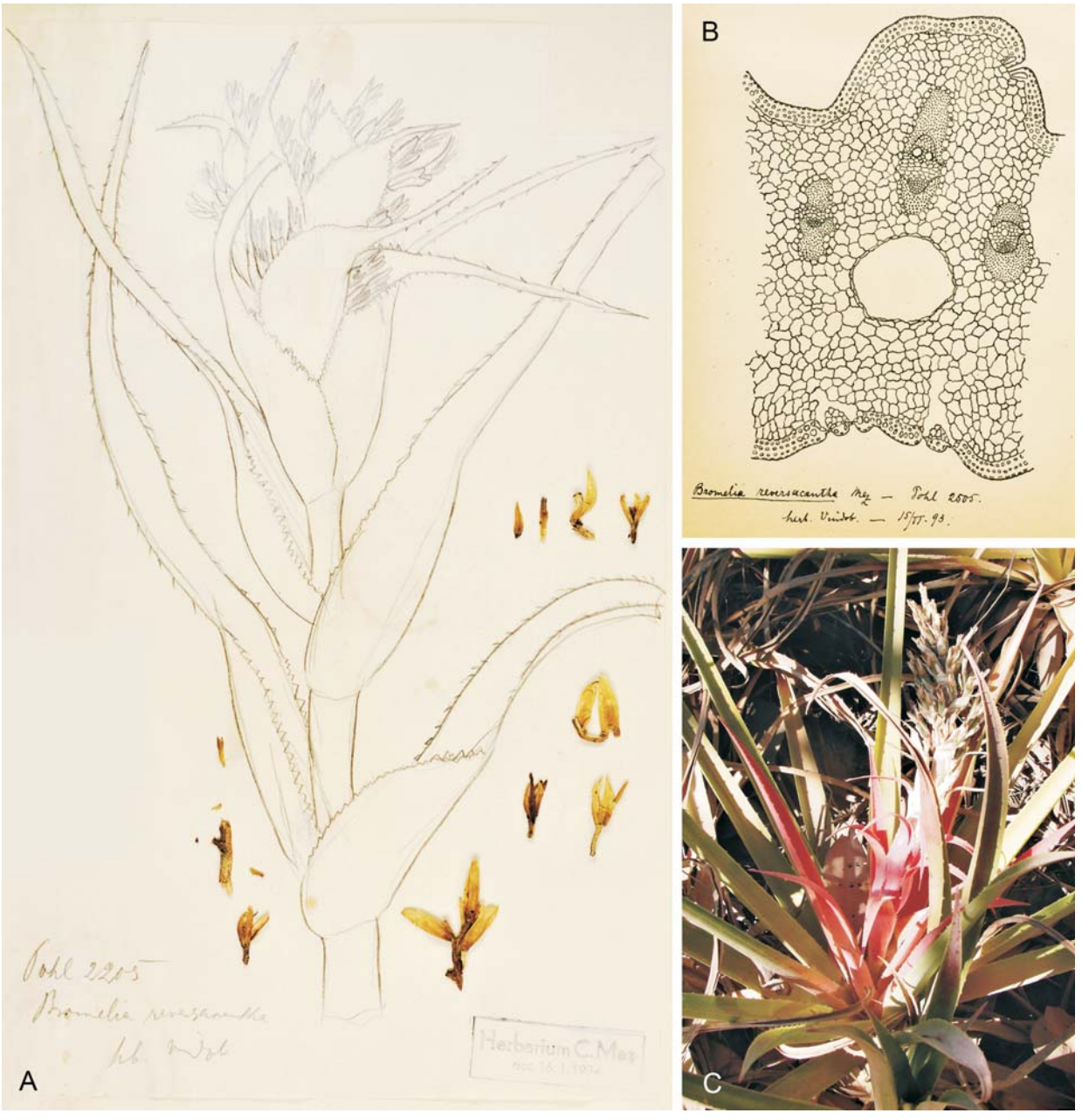

Fig. 2. *Bromelia reversacantha* – A: *Pohl 2205,* detail of the lectotype (B 100248853); B: anatomical diagram by Mez on sheet B 100271787); C: live plant that was the source of the epitype *Monteiro 130.*

Bromelia reversacantha Mez in Martius & al., Fl. Bras. 3(3): 188. 1894

Holotype: Brazil, Goiás, Rio Bagagem, s.d., *Pohl 2205* (W [destroyed], F [photo]; lectotype [designated here]: B 100248853, Fig. 2A). – Epitype (designated here): Brazil, Goiás, 52 km do Trevo Niquelândia-Codemin, na estrada para Colinas do Sul, cerrado, 469 m, 14°21'2"S, 48°06'2"W, 22.7.2007, *R. F. Monteiro & al. 130* (RB, isoepitype: B).

The annotation of the lectotype specimen *Pohl 2205* (B) erroneously refers the Rio Bagagem to the State of Minas Gerais. Urban (1906) provides itineraries for the collectors cited in the Flora Brasiliensis and states that the locality Rio Bagagem is in the state of Goiás. The designated lectotype comprises only some flowers, hardly sufficient to identify this taxon with certainty, despite the presence of the drawings prepared by Mez with the herbarium sheet (Fig. 2A). A second herbarium sheet of the collection *Pohl 2205* at B (B 100271787) carries no plant material but an anatomical diagram (Fig. 2B). In order to provide support for this material, an epitype specimen was collected near the type locality, chosen in complete agreement with the protologue and the photograph of the holotype still extant at the herbarium of the Botany Department at the Field Museum of Natural History (F).

Acknowledgements

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