

Lectotypification of the name *Polymnia maculata* Cav. (Asteraceae: Millerieae)

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Abstract

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The typification of the name *Polymnia maculata* Cav. is discussed and the illustration made by Cavanilles in 1795 is designated as the lectotype and the specimen MA 606169 is designated as epitype.

Keywords: Cavanilles, lectotype, epitype, *Smallanthus maculatus* (Cav.) H. Rob.

Resumen

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Se discute la tipificación del nombre *Polymnia maculata* Cav. y la ilustración llevada a cabo por Cavanilles en 1795 es designada como lectotipo y el ejemplar MA 606169 es designado como epítipo.

Palabras claves: Cavanilles, lectotipo, epítipo, *Smallanthus maculatus* (Cav.) H. Rob.

INTRODUCTION

The genus *Smallanthus* Mack. (Tribe Millerieae) consist of 23 species, distributed from the southeastern United States to east-central Argentina (Vitali & al., 2015). During taxonomic studies of the genus *Smallanthus*, it was found that the typification of *Polymnia maculata* Cav., the basionym of *Smallanthus maculatus* (Cav.) H. Rob., had never been clarified. Cavanilles (1795) associated the original description with an illustration and did not cite any specimen which was the usual by that time. Here, examination of the materials collected during the famous “Real Expedición Botánica a Nueva España” (Royal Botanical Expedition to New Spain), led by Martín Sessé late in the 18th century, provided crucial information and resolved the nomenclatural dilemma. The species descriptions in the first three volumes of the work of Cavanilles were based on cultivated specimens in the Real Jardín Botánico of Madrid, grown from seeds collected during the “Real Expedición Botánica a Nueva España” that began in 1787 (Maldonado Polo, 1996). Martín Sessé was the principal collector of the expedition (Blanco, 2000). Cavanilles, however, never mentioned that the materials on which he based his descriptions had been collected by Sessé & al. during the Royal Expedition (Maldonado Polo, 1996). Instead, Cavanilles added his own illustrations of the plants cultivated in the Botanical Garden to the descriptions of the new species (Bas Martín, 2004). It follows that the plate “Tab. 227” illustrating *Polymnia maculata* Cav. in the “Icones”, represents the specimen grown from an original seed collected by the Royal Expedition. Also, I accessed photographs (<http://plants.jstor.org>) of specimens at the herbarium of the Real Jardín Botánico of Madrid (MA) whose labels specify that they were collected in New Spain by Sessé, Mociño, Castillo and Maldonado and determined as *Polymnia maculata* Cav. by P.C. Standley (MA: 606159, MA: 606168 and MA: 606169). According to Sutherland (1997), the specimens of the Royal Expedition to Nueva España at MA were sent in loan to the Field Museum in

Chicago in 1936. As further indicated by Sutherland, previously to the loan, J. Cuatrecasas numbered these specimens. The number assigned by Cuatrecasas to the specimens MA: 606159, MA: 606168 and MA: 606169 was 3971, although this number do not follow that of Sessé’s and Mociño’s collection (Sutherland, 1997). Despite the specimens at MA undoubtedly correspond to those collected by Sessé and Mociño in “Nueva España”, there is no evidence (e.g. specific notes or handwritten labels) that Cavanilles based his new species on such specimens. Therefore, the plate Tab. 227 (Fig. 1) published in “Icones” is the unique material which may be related safely with the name of Cavanilles and is designated as the lectotype of *Polymnia maculata* in accordance with Articles 9.2 and 9.12 of the International Code of Nomenclature for algae, fungi and plants (McNeill & al., 2012). Although the Tab. 227 clearly represents most of the diagnostic characters of *S. maculatus*, two features important to identify this species are lacking. One of these features is the hollow stem that defines the genus *Smallanthus*. The other feature refers to the auriculate leaf bases of this species. As Cavanilles indicates in the protologue, leaf bases of *S. maculatus* are prominently auriculate. However, this character is not clearly represented in the Tab. 227. The specimen MA 606169, instead, shows the prominently auriculate leaf bases this species. Therefore in accordance with Article 9.8 the specimen MA 606169 is herein designated as epitype.

TYPIFICATION

Smallanthus maculatus (Cav.) H. Rob. *Phytologia* 39: 50. 1978 ≡ *Polymnia maculata* Cav. *Icon.* 3: 14 Tab. 227. 1795. Typus: Mexico. Habitat in Nova-Hispania. Floruit in R. horto Matrisiense mense Decembri 1793 – Lectotype (designated here): [icon] *Icones et Descriptiones Plantarum* Vol. 3, 1795. Tab. 227; epitype (designated here): MA 606169 ([Photo!]) is available at <http://plants.jstor.org/stable/10.5555/al.ap.specimen.ma606169>.



Fig. 1. Lectotype of *Polymnia maculata* Cav. (Icones et Descriptiones Plantarum Vol. 3, 1795. Tab. 227).

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