



## A new, narrowly endemic species of *Blumenbachia* (Loasaceae subfam. Loasoideae) from Brazil

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### Abstract

The genus *Blumenbachia* is restricted to Southern South America and comprises 10 species. Within that genus, monophyletic *B. sect. Blumenbachia* is a clearly delimited group of four previously known species. Here, a new species from Minas Gerais, Brazil, is described. *Blumenbachia amana* differs from the known species in ovoidal (versus spherical) capsules and in the unique combination of the inflorescence characters of *B. insignis* with the leaf morphology of *B. latifolia*, while approaching the flower size of *B. catarinensis*. Like all its close allies, the new species is facultatively autogamous, but pollinated by a highly specialized pollinator in the wild. It is geographically isolated from the other species and only known from two collections sites.

**Key words:** Loasaceae, *Blumenbachia*, Brazil, new species

### Introduction

The delimitation of the genus *Blumenbachia* Schrad. (1825: 1705) is not entirely undisputed and some species are occasionally assigned to the genus *Caiophora* C.Presl (1831: 41)(Urban 1889, Urban & Gilg 1900, Sleumer 1955, Weigend 1997). The taxonomical core is, however, undisputedly, *Blumenbachia* sect. *Blumenbachia*, including four species which have consistently been considered as belonging to *Blumenbachia* (Urban & Gilg 1900, Sleumer 1955, Perez-Moreau & Crespo 1988). The type species, *Blumenbachia insignis* Schrader (1825: 1706), was quickly followed by *B. latifolia* Cambessèdes (1829: 209). Urban & Gilg (1900) recognized a total of four species, a number that had not changed until recently (Weigend 1997, 2010, Weigend *et al.* 2008). The four species range from central and northern Argentina to S Brazil with two wideranging species, *B. latifolia* and *B. insignis*, and two narrow endemics, *B. catarinensis* Urban & Gilg (1900: 355) in Santa Catarina, Brazil, and *B. hieronymi* Urban (1884: 249) in Córdoba, Argentina (Weigend 2010, Weigend *et al.* 2008). This species group is morphologically quite homogeneous and unique in the family with its axillary, one-flowered peduncles with a pair of narrowly ovate bracts adnate to the calyx tube, its twisted capsules with fleshy and later spongy fruit walls falling into 10 segments upon maturity, its irregularly undulate, fibrous seed coat and its opposite, triangular-ovate to trifoliolate leaves with palmate leaf veins. All species are annual or winter-annual and are soft-stemmed, decumbent, erect or winding herbs. Closely allied *Blumenbachia* sect. *Gripidea* Urban (1889: 213) is easily differentiated based on its scandent habit, thin fruit walls, several-flowered inflorescences and winged seeds.

Members of the genus *Blumenbachia* and most species of Loasaceae have complex floral morphology (Fig. 1B,C, F–H) and function (Ackermann & Weigend 2006, Henning & Weigend 2013) and often highly specialized pollination modes. This is particularly true of *Blumenbachia* (Wittmann & Schlindwein 1995, Schlindwein 2000), and the new species here presented was discovered in the course of studies on pollination ecology (C. Schlindwein & S. Oliveira unpublished data). The four known species of *Blumenbachia* sect. *Blumenbachia* are all readily differentiated from each other (Weigend 1997), as is the new species here described as a fifth species of this group.