



Massonia bakeriana (Asparagaceae, Scilloideae), a new pustulate species from the Northern Cape Province (South Africa)

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Abstract

As part of a taxonomic revision of the genus *Massonia*, a new species, *M. bakeriana*, is here described from the Northern Cape (South Africa). This species is at first sight similar to *M. echinata* and *M. mimetica*, but it differs in vegetative, floral, and molecular characters as well as by its ecology and distribution. A complete morphological description of the new species and data on biology, habitat, and distribution are presented.

Key words: Hyacinthaceae, Massonieae, Taxonomy

Introduction

Asparagaceae subfamily Scilloideae tribe Hyacinthae is alternatively treated as Hyacinthaceae subfamily Hyacinthoideae, a treatment we favour based on morphology and molecular data (Martínez-Azorín *et al.* 2013, 2014a, 2014b, 2015, Pinter *et al.* 2013, Speta 1998a, 1998b, Wetschnig *et al.* 2014).

Our current studies show that the taxonomy of *Massonia* Houlttuyn (1780: 424) is not satisfactory as several species were reduced to synonymy, although they represent well-defined species based on distinct morphological and ecological differences (Wetschnig *et al.* 2012, 2014, Pinter *et al.* 2013, Martínez-Azorín *et al.* 2013, 2014a, 2014b, 2015). A considerable step to clarify some of these species concepts was the correct identification of *M. pustulata* Jacquin (1791: 177) and the substitution of *M. pustulata* auct. with *M. longipes* Baker (1897: 411) (Wetschnig *et al.* 2012).

In the framework of a taxonomic revision of *Massonia*, the study of plants cultivated in several private plant collections in Europe named ‘*Massonia pustulata* Loeriesfontein’ and herbarium collections revealed that they represent an undescribed species. At first sight this new species is related to *M. echinata* Linnaeus (1782: 193) sensu Müller-Doblies & Müller-Doblies (1997) and *M. mimetica* Martínez-Azorín *et al.* (2013: 191). Distinct morphological and ecological features support, however, the introduction of a new species, here described as *Massonia bakeriana*.

Materials and Methods

Detailed morphological studies of *Massonia bakeriana*, *M. echinata* and *M. mimetica* from the Northern Cape Province of South Africa were undertaken on natural populations and cultivated specimens (Martínez-Azorín *et al.* 2007, 2009). Table 1 lists the specimens examined and the number of individuals included in the morphological studies. Specimens from the following herbaria ABH, B, BLFU, BOL, BR, E, G, GZU, GRA, HAL, J, K, L, LI, M, MO, NBG, NU, NY, P, PRE, S, TCD, UPS, WIND, WU, Z, ZSS and ZT (acronyms according to Thiers 2015) were studied (see also Appendix 1). Orthography of geographical names and grid-number system follows Leistner & Morris (1976). Morphological measurements and illustrations of leaves were performed on fresh and on herbarium material from wild plants. Morphological measurements of flower parameters were done on specimens of cultivated plants. It has