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Bulbostylis albidostricta (Abildgaardieae, Cyperaceae): a new sedge species from Angola

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Abstract

Bulbostylis albidostricta Veltjen & Goetgh. is presented as new species of *Bulbostylis* (Cyperaceae) from Angola. It is a small, elegant sedge species characterised by a slender creeping rhizome, a single terminal spikelet, glumes with a translucent margin and white velate nutlets. The species is described and illustrated, and differences with the closest resembling species are discussed.

Introduction

As currently delimited, the genus *Bulbostylis* Kunth (Kunth 1837: 205) (Abildgaardieae, Cyperaceae) includes 213 species worldwide (Govaerts *et al.,* 2014). *Bulbostylis* can be recognised by eligulate leaves, leaf sheaths with a pilose orifice, an anthelate or capitate inflorescence with (1–)few-many spikelets, generally short primary bracts, deciduous, usually spirally arranged glumes, bisexual perianthless flowers, a trifid, less often bifid style of which the style base is most often distinct, thickened and persistent as a distinct knob on the mature often ornamented nutlets.

In Angola 29 species of *Bulbostylis* are recorded (Govaerts *et al.,* 2014). During the examination of the Angolan *Bulbostylis* specimens at the Ghent University Herbarium (GENT), a specimen (*H. & E. Hess 51/253*) was encountered that could not be assigned to any known species in the genus (after identification with Hutchinson & Dalziel, 1972; Hoenselaar *et al.*, 2010; Haines & Lye, 1983; Gordon-Gray, 1995; Goetghebeur & Coudijzer, 1985). The specimen in question had been previously identified by Mincier (1984) as *Bulbostylis schlechteri* in his master thesis on the Cyperaceae from Angola based on the presence of a creeping rhizome and a single spikelet, but there are clear differences (see Table 1).

Material and methods

Besides examining the holotype of the new species from ZT and the isotype from GENT (type collection encompasses a total of 37 individual plants), herbarium specimens of Angolan and other resembling *Bulbostylis* species were studied in detail at GENT, BR and L (abbreviations according to Holmgren *et al*., 1990) (see additional specimens examined below). Additional information about possible related species and (type) specimens was obtained from literature (including protologues) and the online databases JSTOR Global Plants (2014), Tropicos.org (2014), Govaerts *et al.* (2014), the Kew Herbarium Catalogue (2014) and the catalogue of the Muséum National d'Histoire Naturelle in Paris (2014).

Images of the general habit, spikelets, cataphylls, orifice hairs and nutlets presented in Figure 1 and Figure 2, were taken with a Nikon SMZ800 stereoscopic microscope, equipped with a Nikon digital camera DXM1200 (Nikon, Tokyo, Japan) and edited with Adobe Photoshop CS3 (Adobe Systems Inc., San Jose, USA). The images of the nutlet, the nutlet surface and the glume presented in Figure 3 were obtained by the use of SEM (VIB Department of Plant Systems Biology, Ghent University): low-vacuum Scanning Electron Microscope (Hitachi Tabletop Miscroscope TM-1000).

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the glumes of *B. schlechteri* have distinct filamentous-pilose marginal hairs while the glumes of *B. albidostricta* have margins that are apilose to sparsely hairy with inconspicuous minuscule hairs. *Bulbostylis rhizomatosa* from the Democratic Republic of Congo, is also incorporated in the comparison as this species has a creeping rhizome as well. This species differs from *B. albidostricta* in the colour and size of the nutlets, and its inflorescence, which is composed of several spikelets.

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