



Article

Carex longipetiolata (Cyperaceae), a new sedge from Hainan, China

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Abstract

Carex longipetiolata, a new species of *Carex* sect. *Rhomboidales* from Hainan, China, is described and illustrated. The new species is similar to *C. saxicola*, but differs in having wider leaves with the leaf base tapering into a long petiole, three shorter and sessile spikes, strictly female lateral spikes, and nutlets estipitate at base.

Key words: *Carex*, *Carex* sect. *Rhomboidales*, new species, taxonomy

Introduction

Carex Linnaeus (1753: 972) is one of the largest genera of seed plants (Frodin 2004). It comprises about 2,000 species worldwide and is easily distinguished from other genera of Cyperaceae by having perigynia enclosing the nutlets (Goetghebeur 1998, Egorova 1999, Mabberley 2008, Dai *et al.* 2010). The recent revision of the genus in China (Dai *et al.* 2010) recognized 527 species in three subgenera and 57 sections. Eight additional species have recently been reported from China (Su 2009a, 2009b, Jin & Zheng 2010, Jin *et al.* 2011, 2012a, 2012b, Yu *et al.* 2012).

Based on the characters of stigma number, inflorescence structure and the distribution of staminate and pistillate flowers within the spikes, Kükenthal (1909) divided *Carex* into four subgenera: *Carex* subgen. *Carex*, *C.* subgen. *Indocarex* Baillon (1893: 345), *C.* subgen. *Vignea* (P. Beauv. ex Lestiboudois 1819: 22) Petermann (1849: 602) and *C.* subgen. *Primocarex* Kükenthal (1909: 68). Lately, the names *C.* subgen. *Indocarex* and *C.* subgen. *Primocarex* were corrected to *C.* subgen. *Vigneastrum* (Tuckerman 1843: 10) Kükenthal (1899: 516) and *C.* subgen. *Psyllophora* (Degland 1828: 282) Petermann (1849: 602) respectively (Reznick 1990). This classification was widely followed by recent authors (Nelmes 1951, Koyama 1962, Chater 1980, Dai *et al.* 2000, 2010, Nguyen 2002). Among them, *C.* subgen. *Carex* includes more than 70% of the species of the genus. *Carex* subgen. *Carex* is characterized by the spikes unisexual, or unisexual and bisexual, rarely all bisexual; one to several spikes borne in an involucre bract sheath, rarely arranged in complex inflorescences; cladophyll sheathlike, lacking a female flower; and stigmas usually 3, rarely 2 (Dai *et al.* 2010).

Carex sect. *Rhomboidales* Kükenthal (1909: 662) belongs to *C.* subgen. *Carex* and is characterized by long-sheathing bracts with short blades, trigonous, rhombic to ovoid perigynia with columniform bidentate beaks at apex, and obovoid or ovoid, trigonous nutlets that are constricted in the middle part and mitrate or hastate at the apex (Kükenthal 1909, Ohwi 1936). It consists of about 50 species mainly distributed in eastern Asia, and 44 species, with 35 of them endemic, have been reported in China (Dai *et al.* 2000, 2010, Oda *et al.* 2003, Jin *et al.* 2004, 2012b, Shimizu 2008, Su 2009a, 2009b).