

Carex helingeeriensis (Cyperaceae), a new species from Inner Mongolia, China

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Carex helingeeriensis L.Q. Zhao & J. Yang (Cyperaceae), a new species from Inner Mongolia, China, is described. It appears most closely related to *C. asperifructus*. The distinguishing characters are given in a key to the two species.

There are about 2000 species of *Carex* (Cyperaceae) in the world (Dai *et al.* 2010). The genus is cosmopolitan; there are 527 species (260 endemic) in three subgenera and 69 sections (two endemic) in China.

In May 2004, the first author collected some specimens of *Carex* from the loess hill-gully region in the Helingeer county, Hohhot, Inner Mongolia, China. He collected similar specimens from the same location in 2004 and 2009, and from the Zhungeer county, in Ordos, Inner Mongolia, in 2005. After careful study, we concluded that the specimens represented an undescribed species.

***Carex helingeeriensis* L.Q. Zhao & J. Yang, sp. nova (Fig. 1)**

HOLOTYPE: China. Inner Mongolia, Hohhot, Helingeer, 40°19'51.16" N, 111°52'29.88" E, on mountain slopes, alt. 1561 m, 4 July 2004 *Li-Qing Zhao* 04-1075 (HIMC). — PARATYPES (all HIMC): China. Inner Mongolia, same location as holotype, 3 May 2004 *Li-Qing Zhao* 04-045, 04-034; 3 May 2009 *Li-Qing Zhao* 09-001; Inner Mongolia, Ordos, Zhungeer (39°38'07.55" N, 110°40'20.49" E), on loess slopes, alt. 1136 m, 22 June 2005 *Li-Qing Zhao* 05-1087.

Perennial, rhizome rather long, obliquely ascending, slender stoloniferous. Culms loosely tufted, 13–20 cm tall, slender, acutely triquetrous, minutely scabrous, lurid and bladeless sheathed at base, rudimentary sheaths usually disintegrating into fibers. Leaves shorter than or nearly longer culm, blades 1–1.5 mm wide, conduplicate or involute, scabrous on upper surface and margins; sheaths pallid, with distinctly pallid veins. Involucral bracts shortly sheathed, lowest involucral bract leaflike, upper ones setiform. Spikes 2 or 3, lowest spike rather remote, upper ones rather approximate; terminal spike male, clavate-linear, 1.5–2 cm, with a slender peduncle; lateral spikes female, oblong, 8–13 mm, densely few- to several-flowered, with a slender peduncle. Male glumes yellowish brown, oblong-ovate, ca. 4 mm, membranous, with white or pale-green midrib, apex acute. Female glumes ochroleucous-brown, ovate, ca. 3 mm, membranous, with a white or pale-green midrib, apex acuminate or acute. Utricles brownish, obliquely patent, equaling or slightly shorter than glume, elliptic, obtusely trigonous, 2.5 mm, leathery, glabrous, apex abruptly contracted into a short beak, emarginate. Nutlets obovate-

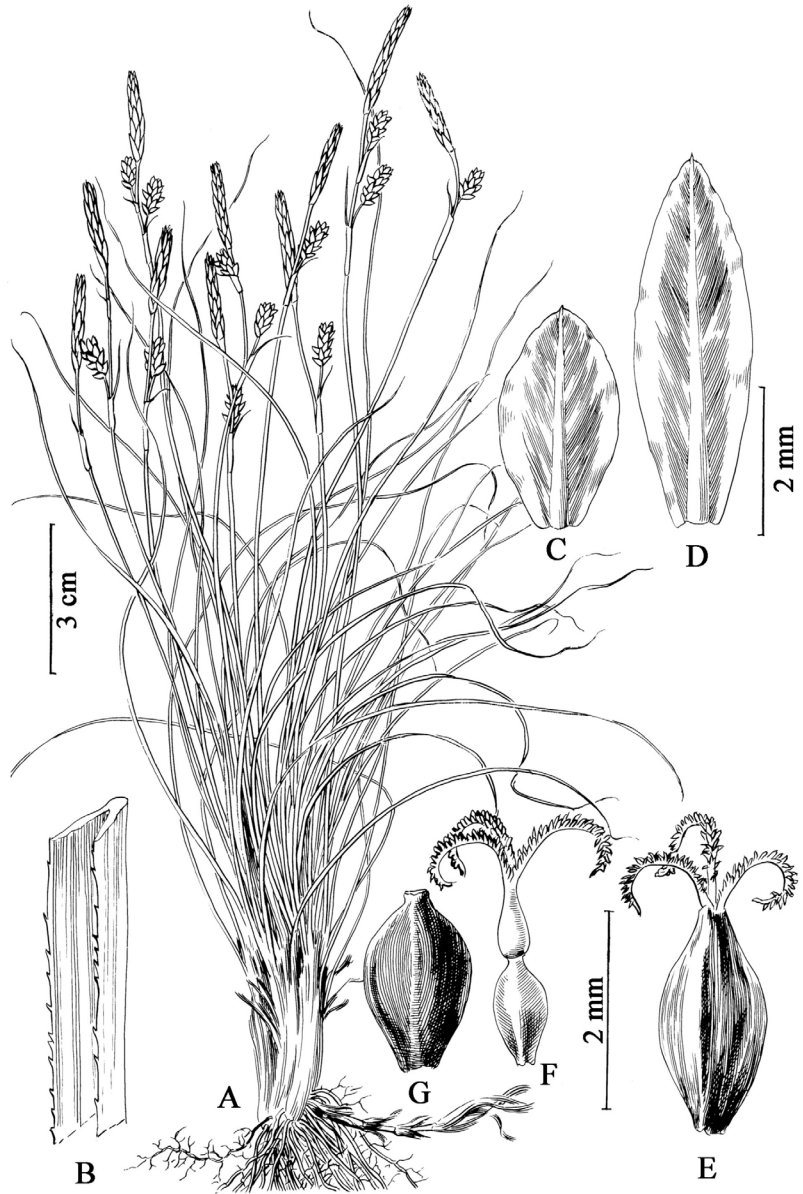


Fig. 1. *Carex helingeeriensis* (from the holotype, drawn by P. Ma). — **A:** Plant. — **B:** Part of leaf blade. — **C:** Female glume. — **D:** Male glume. — **E:** Utricle and stigmas. — **F:** Pistil. — **G:** Nutlet.

elliptic, trigonous, 1.5 mm; style base slightly thickened; stigmas 3. Flowering and fruiting in May–August.

Carex helingeeriensis belongs to the section *Lamprochlaenae* in the subgenus *Carex*. For the morphology in the section, see Ball and Reznicek (2002) and Dai *et al.* (2010).

Carex helingeeriensis is at present known only from the specimen cited in this paper. It resembles *C. asperifructus*, but can be distinguished using the following key:

1. Utricles glabrous; female spikes densely flowered, male spike pedunculate; leaves conduplicate or involute
..... *C. helingeeriensis*
1. Utricles hispidulous, female spikes loosely flowered, male spike sessile; leaves flat *C. asperifructus*

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