Carex longicolla (Cyperacea), a new sedge from China

YUNFEI DENG
Key Laboratory of Plant Resources Conservation and Sustainable Utilization, South China Botanical Garden, Chinese Academy of Sciences, Guangzhou, 510650, People’s Republic of China. E-mail: yfdeng@scib.ac.cn

Abstract

Carex longicolla is described as a new species in section Lageniformes from South China. It is similar to C. truncatigluma, but differs from the latter in its culms more short, 5–10 cm long, spikelets 3–5, close each other, neck equal to or longer than nutlet, 1.5–2 mm long.

Key words: Carex sect. Lageniformes, conservation status, taxonomy

Introduction


In the course of studying the genus Carex in South China, I found some unusual collections that shared the common characters of Carex sect. Lageniformes and identified as C. truncatigluma, but differs in its very short inflorescence, congested spikelets on the top of the culm, the lowest involucrate bracts longer than the inflorescence and the neck equaling to or slightly longer than the nutlet. After a closer comparison, I concluded that it is a hitherto distinct species. Searching the specimens in herbaria, it was found that this species was annotated as Carex longicolla by Tsin Tang and Fatsuan Wang. Therefore, I adopted that name for this species and ascribed the authorship to them.
121°33’11”E, 24°52’26”N, 850 m, bamboo planation, on mountain slope, 11 April 1999, Leong Wai-Chao 1166 (PE).
Yunnan: Foo-ning (now Funing) Xian, Ban-loun, 550 m, under woods, 11 April 1940, Wang Chiwu 88386 (IBK, KUN, PE); Fooning (now Funing) Xian, Ban-loun, 700 m, dense woods under dense shade, 10 April 1940, Wang Chiwu 88293 (PE). Zhejiang: Longquan Shi, Longquanshan, Anshang, Shiliting, 14 May 1933, Chen Shi 1377 (PE); Ningbo Shi, Tiantongshan, Linglongyan, 25 April 1932, Ho Yanyu 1016 (PE); Zhuji Shi, Wuye, 16 April 1932, Chen Shi 74 (PE).

Relationship:—Carex longicolla can be easily distinguished from other species of C. sect. Lageniformes by its neck equaling to nutlet in length. The new species resembles C. truncatigluma, which is distributed in South China, Vietnam, Malaysia (Tang 1999, Deng 2007, Dai et al. 2010), in nutlet slightly constricted at the apex and re-expanded into a cylindric, truncate neck. However, this species is easily distinguished from the latter by culms short, 5–10 cm long (not 10–30 cm long), at least lower bract longer than the inflorescence (not all shorter than the inflorescence), spikelets 3–5 (not 4–8), approximinate or lowest somewhat distinct (not distinct), periginia elliptic-lageniform (not lanceolate-lageniform), pistillate glume acute at apex (not emarginated with a short awn formed by extending midrib), neck between nutlet and style cylindrical (not subboconical), equalling to or longer than the nutlet (not shorter than nutlet), 1.5–2 mm long (not 0.5–1 mm).

The identification key to the species in Carex sect. Lageniformes is provided below.

Key to the species of Carex sect. Lageniformes

1a. Nutlets constricted at middle on angles.
   2a. Culms, leaves, and bracts glabrous; leaves 2–4 mm wide ................................................................. C. ascotreta
   2b. Culms, leaves, and bracts pilose; leaves 4–12 mm wide ....................................................................... C. densipilosa

1a. Nutlets not constricted on angles.
   3a. Culms central, developed from a leafy shoot; lateral spikes androgynaecous.
      4a. Terminal spike androgynaecous ........................................................................................................ C. palawanensis
      4b. Terminal spike staminate.
         5a. Periginia 3.5–5 mm; leaves 4–7 mm wide; culms 10–20 cm tall ........................................................ C. breviscapa
         5b. Periginia 5–6.5 mm; leaves 2–3 mm wide; culms 5–10 cm tall ....................................................... C. rhyynchachaenium

3b. Culms axillary or lateral at the base of a leafy base; lateral spikes pistillate.
   6a. Inflorescence tall, equaling to longer than leaves.
      7a. Staminate spikes linear, ca. 1 mm wide ................................................................................................ C. ligata
      7b. Staminate spikes linear-cylindric, ca. 3 mm wide ............................................................................. C. tahuensis
   6b. Inflorescence short, much surpassed by leaves.
      8a. Periginia 2–3 mm ............................................................................................................................ C. tenuispicula
      8b. Periginia 3–6 mm.
         9a. Neck as long as the nutlet ............................................................................................................. C. longicolla
         9b. Neck shorter than the nutlet.
            10a. Culms 5–7 cm tall; inflorescence 1–1.3 cm long; lateral spikes 0.5–1 cm long; glume acute at apex. C. lageniformis
            10b. Culms 5–30 cm tall; inflorescence 5–20 cm; lateral spikes 1.2–5 cm; glume emarginate at apex usually with a short awn formed by extending midrib.
               11a. All involucral bracts shorter than the extending spikelets ......................................................... C. truncatigluma
               11b. At least lower involucral bracts longer than the extending spikelets .................................. C. pleurocaula

Acknowledgements

The works was partly supported by the National Natural Science Foundation of China (Nos. 30870150, 31170183). I am grateful to Mrs. Liu Yunxiao (IBSC) for her help to prepare the line drawing, to Vu Guang Nam for his help to prepare the distribution map, and to the curators of the herbaria of CANT, IBSC, HTC, KUN, PE and SYS for their helps during my visit.

References
