



## *Juncus kuohii* (Juncaceae), a new species from Taiwan

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### Abstract

*Juncus kuohii*, a new species from the central mountain range of Taiwan, is described and illustrated. It is compared morphologically to similar *Juncus* species in neighboring regions. An updated artificial key to *Juncus* species in Taiwan is also included.

**Key words:** *Juncus fauriensis*, *Juncus fauriensis* subsp. *kamschatcensis*, leaf anatomy, wetland plant

### Introduction

After a recent global revision (Kirschner 2002), the genus *Juncus* Linnaeus (1753: 325, Juncaceae) includes ca. 315 species, and members of it are broadly distributed from the tropics to arctic regions. Ten *Juncus* species, including three newly naturalized species, have been recorded and described in the second edition of the Flora of Taiwan (Kao *et al.* 2000, Boufford *et al.* 2003) and several treatments have recently been published (Wu & Clemants 2000, Wilson & Johnson 2001, Li *et al.* 2008, Jung *et al.* 2012). The author adopted the treatments of Wilson & Johnson (2001) and Kirschner (2002), and confirmed the occurrence of *J. bufonius* Linnaeus (1753: 328) recorded by Wu & Clemants (2000) in Taiwan.

In a botanical survey of high elevations in central Taiwan, the author found a strange perennial, erect *Juncus* species near a wetland. After comparisons with other *Juncus* species from Taiwan and neighboring regions, the author considers it to belong to *Juncus* subgenus *Juncus* section *Ozophyllum* Dumortier (1827: 142). It is similar in appearance to *J. fauriensis* Buchenau (1901: 127), comprising two subspecies both native to northeastern Asia (including Japan and Kamschatca Peninsula), but with several conspicuous morphological differences. Based on these morphological differences, the author regards this as a new species, which is endemic to Taiwan. A description, a line drawing (Fig. 1), a distribution map (Fig. 2), and leaf anatomy images (Fig. 3) of this new species are presented here. A comparison table (Table 1) between this new species and similar *Juncus* species from neighboring regions and an identification key to Taiwanese *Juncus* species are included.

*Juncus kuohii* M.-J. Jung, *sp. nov.* ( Figs. 1 A–J & 3)

TYPE:—TAIWAN. Nantou Hsien: Jen-ai Hsiang, Hohuan Hostel, 121° 17'01" E, 24° 08'33" N, 3210 m, 13 September 2012, M.-J. Jung 5955 (holotype TAIF!; isotypes HAST!, TNU!).

*Juncus kuohii* is similar to *J. fauriensis* in appearance, but can be differentiated by more cataphylls at the base of the plant, the sheath apex with or without inconspicuous auricles, and the dark brownish outer tepals with light or dark central band and castaneous to dark brownish side.