Phytotaxa 87 (3): 39–44 (2013)
www.mapress.com/phytotaxa/

Article

ISSN 1179-3155 (print edition)
PHYTOTAXA
ISSN 1179-3163 (online edition)

http://dx.doi.org/10.11646/phytotaxa.87.3.1

Acronema crassifolium sp. nov. (Apiaceae), a distinct new species from Yunnan, southwest China

HUAN-CHONG WANG[1, 2], XIN-MAO ZHOU[1], HANG SUN[2] & YUE-HUA WANG[1]

[1]*School of Life Science, Yunnan University, Kunming 650091, China. E-mail: wangyh58212@126.com, hchwang@ynu.edu.cn*
[2]*Key Laboratory of Biodiversity and Biogeography, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming 650204, China*

Abstract

Acronema crassifolium, a distinct new species endemic to Yunnan province, China, is described and illustrated. It is characterized by its thickly papery, ternate, abaxially dark purple leaves, terminal umbels with 8–13 rays, and absent calyx teeth. The pollen morphology of the new species is also described in this study.

Key words: Endemism, Jiaozishan mountains, micromorphology, palynology, Sino-Himalayan genus, new species

Introduction

Acronema Falc. ex Edgeworth (1846: 51) is a small genus of Apiaceae (Umbelliferae), which consists of about 25 species (Pan *et al.* 2005). *Acronema* comprises biennial and perennial herbs, with tuberous or rhizomatous roots, biternate or pinnately divided leaves, obsolete calyx teeth, and often flat petals with long-linear apex (Pan *et al.* 2005). *Acronema* is a taxonomically difficult genus; the generic boundaries between *Acronema* and closely related genera, such as *Sinocarum* Wolff ex Shan & Pu (in Shan *et al.* 1980: 374) and *Pimpinella* Linnaeus (1753: 263), are particularly difficult to delimit; some species are difficult to identify because of their indistinct species boundaries.

Acronema is considered as a typical Sino-Himalayan genus (Wu *et al.* 2003, Pan *et al.* 2005), occurring in China, India, Bhutan, Nepal and Myanmar, with only one species extending to northern Thailand (Suksathan 2001). The majority of species (ca. 20) is concentrated in southwest China, and most of them are restricted to relatively small geographical areas. Most species of *Acronema* grow in the understory of forests and thickets at high elevations of 3000–5250 m a.s.l.

Here we describe a new species of *Acronema* with distinctive characters from northern Yunnan, southwest China.

Materials and methods

Morphology:—Both living plants and herbarium specimens were studied. The measurements of the morphological features were conducted using a micrometer and a stereomicroscope.

Micromorphology and pollen morphology:—Scanning electron microscope (SEM) micrographs were taken at 25 kV using the QUANTA 200 scanning electron microscope (FEI Co., USA); the gold-palladium plating was performed using the BAL-TEC SCD 005 cool sputter coater (BAL-TEC AG., Liechtenstein) at Yunnan University, Kunming, China. The descriptive terminology for the pollen grains follows that of Punt *et al.* (2007).

Accepted by Hans-Joachim Esser 13 Feb. 2013; published online in PDF: 15 Mar. 2013