



## Two new species of *Calanthe* (Orchidaceae; Epidendroideae) from China

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### Introduction

*Calanthe* Brown (1821: t. 573), with 217 species (WCSP, 2013), is widely distributed from tropical and subtropical Asia to the Pacific islands, tropical and southern Africa, Madagascar, Mexico, Panama and northern South America. Some 51 species are found in China, of which 23 are endemic (Chen S.C. *et al.* 2009). Over 80% of the Chinese species of *Calanthe* are found in southwestern China, and a number of new species or new distributions have been described in recent years, for example, *Calanthe dulongensis* Li, Li & Dao (2003: 267), *Calanthe fugongensis* Jin & Chen (2008: 20) and *Calanthe alleizettii* Gagnepain (1950: 508; Jin & Chen 2007). All evidence indicates the existence of a diversity centre of *Calanthe* in southwestern China.

During research on this genus, two species from Wenshan City, Jingdong County, and Baoshan, Yunnan Province, were discovered, respectively, in 2011 and 2012; however, we could not match them with any known species. After careful observation of transplanted individuals in the South China Botanical Garden (Guangzhou) and The National Orchid Conservation Center of China (NOCC) for several years and comparison with the recorded *Calanthe* species (Tables 1, 2), we decided that these plants represent undescribed species, which are consequently described and illustrated here.

### Taxonomy

#### 1. *Calanthe wenshanensis* J.W.Zhai, L.J.Chen & Z.J.Liu, *sp. nov.* (Figs. 1, 2)

This species is similar to *C. herbacea* Lindley (1855:10); they both have Alisma-like leaves and green sepals and petals, but the former can be distinguished by lateral lobes of its lip that embrace the midlobe and fleshy and horn-like midlobe that is slightly lobed apically.

**Type:**—CHINA. Yunnan (云南): Malipo (麻栗坡), 1000 m, under forest, 4 April 2011, *Liu 5305* (holotype NOCC!).

Terrestrial herbs, 18–25 cm tall. Pseudobulbs ovate or conical, 2.0–3.0 × 1.8–2.2 cm. Leaves 4–6, oblong to elliptic, base contracted to a petiole, 5–7 cm long? apex acuminate. Scape arising from leaf axil, erect, up to 55 cm, pubescent; raceme 30 cm long, laxly ca. 13-flowered; flower bracts oblong-lanceolate, green, ca. 1.3 cm long. Flowers ca. 1.5–2.0 cm in diameter, yellowish green; pedicel and ovary 1.5–2.5 cm, densely pubescent. Sepals subequal, ovate to oblong-ovate, ca. 1.5 × 0.6 cm; dorsal sepal concave, cymbiform; petals subspatulate, ca. 0.3 cm wide, lip adnate to column wings, deeply trilobed, midlobe spreading, wing-like, slightly lobed apically, apiculate in sinus; disk with a cluster of yellow wart-like calli at base; lateral lobes connivent with the calli, horn-like; spur arcuate, yellowish green, ca. 1.3–1.5 cm, outside pubescent, apex obtuse. Column ca. 0.5 cm, white; rostellum bilobed; pollinia waxy, 8, in 2 groups. Fl. Aug.