



A new species of *Habenaria* (Orchidaceae) from Guangxi, China

ZIBIN ZHANG^{1,2,3}, MEI YANG^{2,3}, SHUWEI CAI⁴, BOGAO HUANG^{2,3}, YANQING WEI², QIAOQIAO CHEN^{2,3} & XIUHAI ZHAO^{1,*}

¹The Key Laboratory for Silviculture and Conservation of Ministry of Education, Beijing Forestry University, Beijing 100083, China.

²Administrative Bureau of Yachang Orchid National Nature Reserve, Baise 533209, China

³Yachang Orchid Research Center, Baise 533209, China

⁴Guangxi Yachang Forestry Farms, Baise 533209, China

*Corresponding author; e-mail: blzxh@sina.com

Abstract

A new species of Orchidaceae, *Habenaria yachangensis*, from Yachang Orchid National Nature Reserve, Guangxi, China, is described and illustrated. The new species can be distinguished from the other species in genus *Habenaria* by having pale green to greenish white flowers with tripartite dorsal sepal and lip, and lateral sepals with one or two teeth on one side, petals with two lateral thickenings. *H. yachangensis* is restricted to a single mountain top in Yachang Orchid National Nature Reserve.

Key words: *Habenaria yachangensis*, Yachang Orchid National Nature Reserve, *H. malintana*, *H. finetiana*

Introduction

Habenaria Willdenow (1805: 44) is one of the largest genera of Orchidaceae, with approximately 876 (Govaerts *et al.* 2011) terrestrial species distributed throughout the tropical and subtropical regions of the Old and New World (Batista *et al.* 2006, 2008). Centres of diversity are Brazil, southern and central Africa and East Asia (Kurzweil & Weber 1992, Batista *et al.* 2006). *Habenaria* is characterized by having root tubers or fleshy roots, simple or bilobed petals, 3-lobed (rarely entire) and usually spurred lips, and a column with two stigmatic processes. However, the generic delimitation of *Habenaria* is very difficult from a morphological point of view, and many species originally described in the genus have been transferred to other genera in its alliance. There are also a lot of intermediate species between them (Lang 1998, 1999, Jin *et al.* 2012).

Recent results of molecular phylogenetics indicate that *Habenaria* is currently defined is polyphyletic (Bateman *et al.* 2003), and Batista *et al.* (2013) indicated that all Neotropical sections of the current sectional classification are paraphyletic or polyphyletic but still need extensive revision and re-circumscription.

There are about 54 species of *Habenaria* in China, mainly distributed south of the Yangtze River basin and particularly in the Hengduan mountain region (Lang 1999). During our botanical expedition in Yachang Orchid National Nature Reserve in western Guangxi, an unusual species of *Habenaria* was discovered. Our examination of the field specimens showed that they represent a new species which is described below.

Habenaria yachangensis Z.B. Zhang & W. Guo, *sp. nov.* (Figs. 1 & 2)

Type:—CHINA. Guangxi: Leye County, Yachang Orchid National Nature Reserve, elevation ca. 560 m, 3 September 2013, *Xiao-hua Jin* & *Zi-bin Zhang* 13814 (holotype PE!).

Habenaria yachangensis is similar to *H. malintana* (Blanco 1837: 642) Merrill (1918: 112) by presenting adaxially light green, abaxially greenish silver leaves spiralling along the stem, densely flowered inflorescence, glabrous flowers pale green to greenish white with white towards the centre, but can be distinguished from the latter by having pale green to greenish white flowers with white towards the centre, a distinctly tripartite dorsal sepal, lateral sepals with 1–2 teeth on one side (absent in *H. malintana*), and petals with two thickenings on both sides and spur 13–35 mm (versus 2–8 or no spur).

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