



Article

Gastrodia albidoides (Orchidaceae: Epidendroideae), a new species from Yunnan, China

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Abstract

A new species, *Gastrodia albidoides* (Orchidaceae: Epidendroideae, Gastrodieae) from Yunnan, China, is described and illustrated. It is closely related to *G. theana* and *G. albida* but can be distinguished by an almost smooth perianth tube, lateral sepals fused to ½ their length, whitish and unthickened petals, a well-developed rostellum and distinct column foot.

Key words: Chinese Orchidaceae, Epidendroideae, Gastrodieae, holomycotrophic orchids

Introduction

Gastrodia Brown (1810: 330; Gastrodieae, Epidendroideae, Orchidaceae) comprises more than 50 species ranging from northeastern India through the eastern Himalayas, across southern China to Japan and eastern Siberia, throughout Southeast Asia to eastern Australia and the southwestern Pacific islands; it occurs also in Madagascar, the Mascarene Islands and tropical Africa (Pridgeon *et al.* 2005, Bosser 2006, and Cribb *et al.* 2010). Diagnostic generic characters include holomycotrophic habit, a perianth tube formed by united sepals and petals, basally positioned stigma and two pollinia (Pridgeon *et al.* 2005).

Nineteen *Gastrodia* species have so far been recorded in China, of which 13 are endemic (Chen *et al.* 2009, Hsu & Kuo 2011, Yeh *et al.* 2011, Hsu *et al.* 2012). During a botanical expedition to the Xishuangbanna Tropical Rainforest Dynamics Plot in May 2011 and May 2012, we found a new species, described below.

Gastrodia albidoides Y. H.Tan & T. C.Hsu, *sp. nov.* (Fig. 1–2)

Species *G. theanae* et *G. albidae* affinis, sed perianthii tubo non manifestum longitudinaliter striato et verrucoso, lateralibus sepalis 1/2 longitudine connatis e basi, petalis aequalis non verruculoso, columnae pede et rostello conspicuo differt.

Type:—CHINA. Yunnan: Mengla, Xishuangbanna National Nature Reserve, in tropical rainforest, 700–800 m, 12 May 2012, Tan 6809 (holotype: HITBC!).

Terrestrial, leafless, achlorophyllous herbs. Roots few, slender, 1–13 cm long, ca. 0.5–0.7 mm in diameter. Rhizome fleshy, tuberous, fusiform, 20–50 mm long, 5–12 mm in diameter, grayish brown, finely irregularly verrucose, scaly. Scales verticillate, oblong-lanceolate, brownish black, ca. 2 mm long. Inflorescence erect, terminal, 1.0–8.5 cm long, ca. 3 mm in diameter, white to pale whitish, peduncle 1–4 noded; sheath membranous, ovate to broadly ovate, 3–5 × 2–3 mm; rachis often less than 5 mm long. Bracts membranous,