



## The fungal genus *Calycellinopsis* belongs in Helotiaceae not Dermateaceae

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### Abstract

The monotypic genus *Calycellinopsis* was known previously only from the type locality in tropical Yunnan, China and treated as a member of the Dermateaceae based on morphological features. When the second collection from Hunan in the subtropical region was found, a sequence analysis of 18S nrDNA showed that the fungus is closely related to fungi in the Helotiaceae and only distantly related to members of the Dermateaceae. A transfer of *Calycellinopsis* from Dermateaceae to Helotiaceae is required.

**Key words:** fungi, morphology, petiole habitat, sequence analysis

### Introduction

The inoperculate cup-fungus genus *Calycellinopsis* has remained monotypic since its establishment. The type species *C. xishuangbanna* was first found on the thin petioles of an unidentified plant (Fig. 1a) from Xishuangbanna, Yunnan Province in southwestern China, with a *Myrioconium*-like anamorph produced in culture (Zhuang 1990). At the time, molecular techniques were rarely used in fungal systematics and placement of the fungus at a higher rank was based merely on morphological characteristics. The fungus is similar to *Pezoloma* (Leotiaceae, Leotiales) in the presence of a distinct gel layer covering the lower receptacle surface of the apothecium and to *Calycellina* (Hyaloscyphaceae, Helotiales) in having the brown basal ring at the attachment to substrate. It is peculiar in possessing short, club-shaped cell protrusions arranged in a palisade layer covering the margin and upper flanks of the apothecia. The genus was tentatively placed in Dermateaceae (Helotiales) due to the presence of pigmented cells in the ectal excipulum.

During our excursion to the Mangshan Nature Reserve, Yizhang County in Hunan Province in southern China some 14 years later, a fungus with a furfuraceous receptacle surface on large petioles of *Aralia chinensis* L. (Araliaceae; Fig. 1b) was collected with no culture. When longitudinal sections through the middle of an apothecium were made, it turned out to have the same anatomy as *C. xishuangbanna* from Yunnan except for the size of apothecia, thickness of excipulum (Fig. 1c, d), and iodine reaction of ascus apical apparatus. The Hunan collection is obviously conspecific with the type species of *Calycellinopsis*. Plenty of fruitbodies in this collection made it possible to extract DNA from the dried apothecia, to reconsider the taxonomic position of the genus *Calycellinopsis* on the basis of sequence analysis, and to provide a more informative species concept of the fungus.