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Phaeocollybia jennyae newly recorded in Taiwan

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ABSTRACT

Phaeocollybia jennyae (Hymenogastraceae, Agaricales, Basidiomycota) was collected from a hardwood forest in Lienhua-chih, Nan-tou County, Taiwan. The species, with a known distribution in China, Europe, and Canada, is herein newly recorded in Taiwan. It is characterized mainly by forming a rooting base below the ground and small, slightly verrucose, yellowish-brown basidiospores.

Key words: Cortinariaceae, Hymenogastraceae, *Phaeocollybia*, rooting base

Introduction

Phaeocollybia R. Heim was recently assigned to the family Hymenogastraceae (Matheny et al. 2006) based on molecular phylogeny. It had commonly been treated as a genus of Cortinariaceae (Moser 1983, Breitenbach & Kränzlin 2000, Bandala 2003). The genus, which contains about 50 species, is widely distributed, with a higher diversity found in temperate regions (Kirk et al. 2008). *Phaeocollybia* means dusky *Collybia*, referring to the brownish spore print in contrast to the white spore print of *Collybia* in the traditional sense (Norvell and Exeter 2008). Other salient characteristics of *Phaeocollybia* include umbonate caps, stipe extending downwards into ground to form a root-like toward the base, weakly verrucose brown spores (Norvell and Exeter 2008).

Species of *Phaeocollybia* have not been reported in Taiwan (Wang et al. 1999). *Phaeocollybia jennyae* is here recorded for the first time in Taiwan.

Materials and Methods

Microscopic structures were examined by bright field microscopy (BF). Material was mounted in water for examination by BF. PCR amplification of ITS was described in Hsieh et al. (2009). The ITS sequence was subjected to NCBI BLAST queries.

Taxonomy

Phaeocollybia jennyae (P. Karst.) Romagn., Bull. Trimest. Soc. Mycol. Fr. 58: 127. 1942. Fig. 1

≡ *Naucoria jennyae* P. Karst., Hedwigia 20: 178. 1881.

≡ *Phaeocollybia jennyae* (P. Karst.) R. Heim, Encyclop. Mycol., 1 Le Genre *Inocybe* (Paris): 70. 1931; Nom. inval., Art. 35.2.

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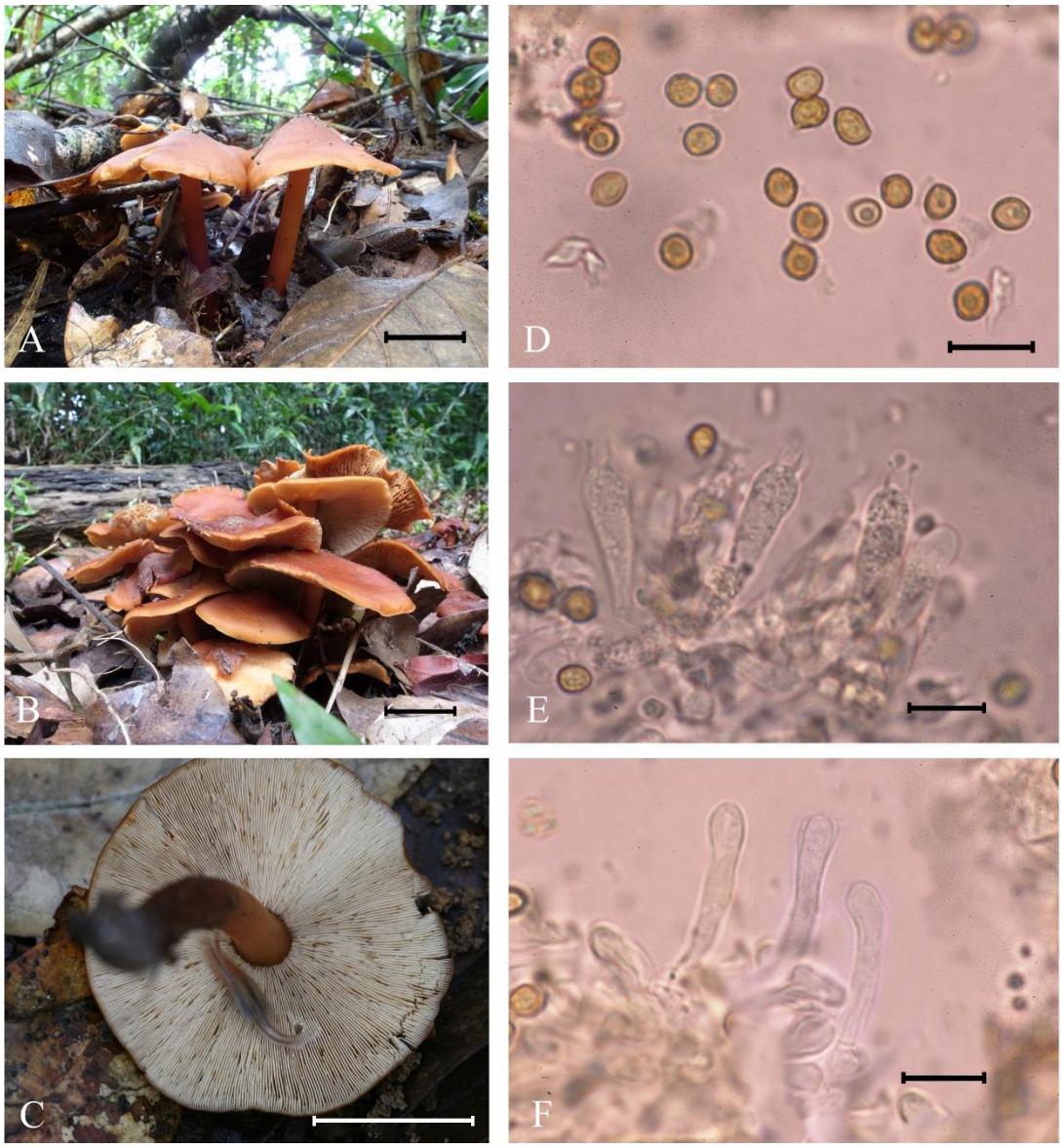

Fig. 1. *Phaeocollybia jennyae*. A, B. Fruiting bodies. C. Lamellae. D. Basidiospores. E. Basidia. F. Cheilocystidia. Bars: A–C = 2 cm; D–F = 10 µm.

Pileus 2.5–5 cm diam, campanulate to convex, with a distinct umbo, smooth, deep red-brown to bright red brown on surface, smooth at margin. Lamellae cream-yellow to reddish-ocher, densely arranged, with lamellulae, smooth or slightly dentate on edges. Stipe 5–10 × 0.3–0.5 cm, cylindrical, smooth, hollow, with a rooting base extending downwards into ground. Flesh thin, red-brown.

Basidiospores light ochraceous to yellowish-brown, broadly ellipsoidal, 4–5 × 3.5–4 µm, weakly verrucose. Basidia clavate, 18–25 × 6–7 µm, with 4 sterigmata. Cheilocystidia cylindrical to slightly clavate, 20–28 × 3–4 µm. Pileipellis of periclinal hyphae. Septa without clamps.

Specimens examined. TAIWAN. Nantou, Lienhuachih, on soil of hardwood forest, 4 Jun 2014, Chou, W. N. CWN 10712 (TNM), sequence of

ITS deposited at GenBank as MW271805.

Distribution. China, Europe, North America, Taiwan.

Notes. *Phaeocollybia jennyae* has small and slightly verrucose basidiospores (Breitenbach and Kränzlin 2000, Wu et al. 2011). The species is similar to *P. ratticuada* in fruitbodies and basidiospores; however the latter species distinctly differs by cheilocystidia being capitate, constricted below the apex (Horak 1977). The ITS sequence shared a 91.42 % similarity with that of *P. ratticuada* PDD72544 (GenBank accession no. KY827315).

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臺灣新記錄種詹尼暗金錢菇

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摘　　要

本文描述及圖示詹尼暗金錢菇的臺灣新記錄種，它生長在林業試驗所蓮華池分所闊葉林地上。這種主要特徵是具有假根及小、黃褐色並有微疣的孢子。

關鍵詞：絲膜菌科、腹菌科、暗金錢菇屬、假根。