

***Amylosporus campbellii*, a noteworthy polypore new
to Southeast Asia**

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Dai Y. C. (2007): *Amylosporus campbellii*, a noteworthy polypore new to Southeast Asia. – Czech Mycol. 59(2): 171–175.

Amylosporus campbellii was found on Hainan Island, southern China. It is the first record of the species in Southeast Asia. A detailed description of it based on field observations and microscopic examinations are given.

Key words: Basidiomycetes, *Bondarzewiaceae*, taxonomy

Dai Y. C. (2007): *Amylosporus campbellii*, pozoruhodný druh choroše nový pro jihovýchodní Asii. – Czech Mycol. 59(2): 171–175.

Choroš *Amylosporus campbellii* byl nalezen na čínském ostrově Hainan v jihovýchodní Asii. Jde o první nález pro tuto oblast. Je publikován podrobný popis tohoto druhu založený na terénním pozorování a mikroskopickém studiu.

INTRODUCTION

This paper is a continuation of a series of studies on wood-decaying fungi from southern China (Dai et al. 2003, 2004a, 2004b). In the course of a study of polypores from Hainan Island, a huge polypore, identified as *Amylosporus campbellii* (Berk.) Ryvar den, was found on grassland. It is new to the Chinese fungal flora, and also found for the first time in Southeast Asia. A detailed description of it based on field observations and microscopic examinations are given.

MATERIALS AND METHODS

The studied specimens are deposited at the Herbarium of the Institute of Applied Ecology, Chinese Academy of Sciences (IFP). The microscopic routine used in the study follow Niemelä et al. (2004). The following abbreviations are used: IKI = Melzer's reagent, KOH = 5 % potassium hydroxide, CB = Cotton Blue, CB+ = cyanophilous, CB- = acyanophilous, IKI- = negative in Melzer's reagent, L = mean spore length (arithmetic mean of all spores), W = mean spore width (arithmetic

mean of all spores), Q = extreme values of the length/width ratios among the studied specimens, and n = the number of spores measured from the given number of specimens. Special colour terms mostly follow Anonymus (1969) and Petersen (1996).

RESULTS

Amylosporus campbellii (Berk.) Ryvarden

Figs. 1–2

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Fruit body. Basidiocarps annual, pileate, centrally to laterally stipitate, solitary or a few confluent, fleshy to soft corky and watery when fresh, without odour or taste, corky and light in weight upon drying. Pileus more or less circular, up to 15 cm in diam., 4 cm thick at centre, sometimes lobed, becoming thinner towards margin; margin undulating, obtuse to acute. Pileal surface cream when fresh, pinkish buff to pinkish brown with age or when dry, becoming pinkish buff to clay buff up on drying, azonate, smooth to rough. Pore surface cream when fresh, becoming buff when dry; pores angular, 2–3 per mm; dissepiments thin, lacerate. Context cream and watery when fresh, pinkish buff and corky when dry, up to 4 cm thick at centre; tubes buff and brittle when dry, up to 1 cm long. Stipe short and thick, buff and corky when dry, up to 1 cm long, 2 cm in diam.; pores decurrent on stipe.

Hyphal structure. Hyphal system dimitic; generative hyphae in context and stipe bearing both simple septa and double or multiple clamp connections, tramal generative hyphae mostly bearing simple septa; skeletal hyphae IKI–, CB–; all hyphae unchanged in KOH.

Context. Generative hyphae dominant, hyaline, thin- to slightly thick-walled, occasionally branched, 5–9 μm in diam.; skeletal hyphae common, thick-walled with a narrow lumen to subsolid, frequently branched, flexuous, loosely interwoven, 3–8 μm in diam. ($n = 40/2$). Gloeoplerous hyphae occasionally present, frequently branched, flexuous, almost as thick as skeletal hyphae. Hyphae in stipe similar to those in context.

Tubes. Generative hyphae common, hyaline, thin-walled, rarely branched, subparallel along the tubes, 3–8 μm in diam.; skeletal hyphae common to dominant, thick-walled with a narrow to wide lumen, frequently branched, flexuous, loosely interwoven, 3–9 μm in diam. ($n = 40/2$). Gloeoplerous hyphae frequently present, occasionally branched, flexuous, almost as thick as skeletal hyphae. Cystidia and cystidioles absent. Basidia clavate, with a basal simple septum and four sterigmata, 10–20 \times 7–8.5 μm ; basidioles in shape similar to basidia, but slightly smaller.

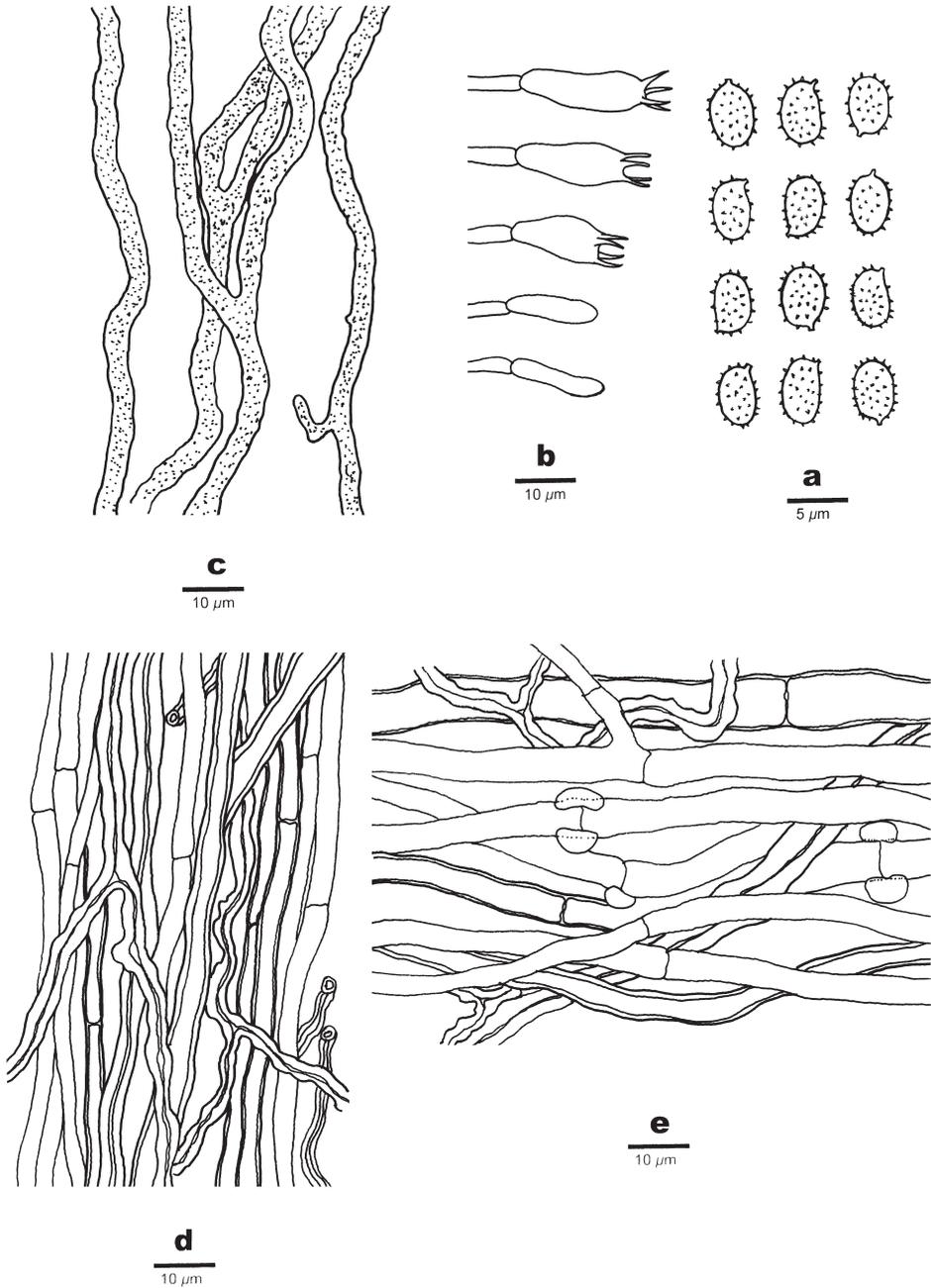


Fig. 1. Microscopic structures of *Amylosporus campbellii* (Berk.) Ryvarden (drawn from Dai 7802). a: basidiospores. b: basidia and basidioles. c: gloeoplerous hyphae in context. d: trama hyphae. e: context hyphae.



Fig. 2. *Amylosporus campbellii* (Berk.) Ryvarden (Dai 7802).

Basidiospores. Broadly ellipsoid to oblong-ellipsoid, hyaline, thin-walled, finely echinulate, amyloid, CB+, (4–)4.5–5.2(–5.3) × 3–3.8(–4) µm, L = 4.83 µm, W = 3.43 µm, Q = 1.4–1.41 (n = 60/2).

Specimens examined. China, Hainan Province, Haikou, Jinniuling Park, on lawn, 1. IX. 2006 leg. Dai 7802, 7803, 7808 (IFP, H).

Remarks. *Amylosporus campbellii* is characterised by its stipitate basidiocarps, terrestrial growth, strongly decurrent pores, dominant generative hyphae in the context, both simple septate and clamped generative hyphae, presence of gloeoplerous hyphae, and by echinulate, amyloid and cyanophilous basidiospores.

Amylosporus campbellii was reported from tropical Africa and America (Ryvarden and Johansen 1980, David and Rajchenberg 1985, Gilbertson and Ryvarden 1987), in Asia it was found in India only (Roy and De 1996). The present record is the first report of the species from Southeast Asia. Basidiospores of the species were reported to be ellipsoid (4.5–5.5 × 2.5–4 µm, Gilbertson and Ryvarden 1987) or broadly ellipsoid to ovoid (4–5 × 2.5–4 µm, Ryvarden and Johansen 1980), while they are broadly ellipsoid to oblong-ellipsoid based on our study from the Chinese material.

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