

THE FIRST RECORD OF *CREPIDOTUS CROCOPHYLLUS* FROM TURKEY

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ABSTRACT. In the current study, *Crepidotus crocophyllus* (Berk.) Sacc. is reported for the first time for Turkish mycobiota. Short description of the new record together with its drawings related to macro and micromorphologies were given and discussed briefly.

1. INTRODUCTION

Crepidotus is a genus of the family *Inocybaceae* within the order *Agaricales* (*Basidiomycota*) and it possesses over 150 widely distributed species [1]. Pleuroid fruiting body with lateral stipe, circle, semicircle, fan, kidney or spatula-shaped pileus with fibrillose, tomentose, scaly or glabrous surface, yellow-brown, clay coloured, brown or cinnamon spore print, hyaline, light brown or brown basidiospores with or without ornamentation and the presence of cheilocystida are the characteristics of the genus members [2-4].

Nine *Crepidotus* species (*C. calolepis* (Fr.) P. Karst., *C. caspari* Velen., *C. cesatii* (Rabenh.) Sacc., *C. cinnabarinus* Peck, *C. epibryus* (Fr.) Quél., *C. luteolus* Sacc., *C. mollis* (Schaeff.) Staudé, *C. variabilis* (Pers.) P. Kumm. and *C. vulgaris* Hesler & A.H. Sm.) have hitherto been registered from Turkey but there was not any record of *C. crocophyllus* (Berk.) Sacc. [5-11]. The purpose of the present study is to contribute to Turkish *Crepidotus*.

2. MATERIAL AND METHOD

Fresh fungi samples were collected from Sinop province on 28th of September 2014. Necessary morphological and ecological characteristics of the samples were noted in their natural habitats. In the laboratory, initially the spore prints of the samples

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were taken, and then, the microstructural data were gathered by light microscopy. Some reagents such distilled water, 5 % KOH, H₂O, H₂SO₄, congo red, cotton blue, etc. were utilized. We benefited from the currently existing literature for the identification of the species [2-4]. The identified specimens were deposited to the herbarium of Ankara University (ANK).

3. RESULTS

The systematics of the species follow Kirk et al. (2008). Short description, ecologies, and distributions, localities, collection dates, drawings related to its macro and microstructures were provided.

Basidiomycota Whittaker ex R.T. Moore

Agaricales Underw.

Inocybaceae Jülich

Crepidotus crocophyllus (Berk.) Sacc., (Figure 1).

Syn.: *Agaricus crocophyllus* Berk.

Macroscopic and microscopic features

Pileus 20-30 mm broad, sessile, laterally attached to the substratum, spatulate to flabelliform, hemispherical, convex when young, later plano-convex, with inflexed margin, later becoming straight and smooth, surface cream yellow to yellowish brown, darker with age covered with brownish, orange-brown, rust or cinnamon fibrils or scales. **Flesh** thin, brownish to orange-brown. **Taste** mild. **Odor** not distinctive. **Lamellae** close to crowded, adnexed to narrowly adnate, grayish-yellow, yellowish-brown, grayish, grayish brown or brownish-orange. **Spores** 5.5-7 × 5-7 µm, globose to subglobose, punctate, warty, yellowish-brown to pale brown, **Basidia** 25-35 × 6-8 µm, cylindrical to narrowly clavate, four-spored and clamped. **Pleurocystidia** absent. **Cheilocystidia** 40-60 × 6-10 µm, clavate, cylindrical, more rarely lageniform. **Pileipellis** a cutis consisting of cylindrical, thick-walled, hyaline hyphae in distilled water, yellow to brown-pigmented in KOH, intracellular and incrusting in hyphae of squamules on pileus, all hyphae with clamps.

Ecology

Solitary to gregarious, on stump, fallen branches, decaying log or dead bark of hardwood, June to October, rare [2,3].

Material examined

TURKEY-Sinop: Bozburun, Abalı village, on common hornbeam (*Carpinus betulus* L.), 20 m, 28.09.2014, Allı 5675.

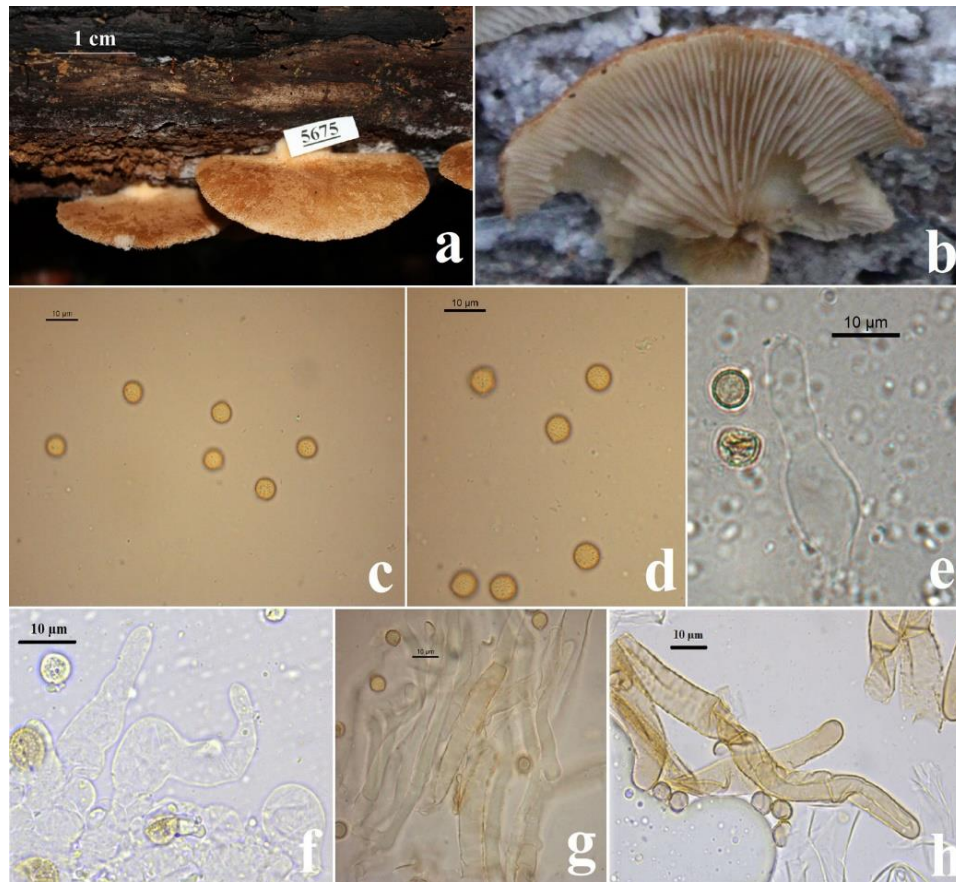


FIGURE 1. *Crepidotus crocophyllus*: **a,b.** fruit body. **c,d.** spores. **e,f.** cheilocystidia. **g,h.** pileipellis.

4. DISCUSSION

C. crocophyllus could be recognized by a pileus covered with brown-pigmented fibrils or scales, punctate, warty, globose to subglobose spores, clavate, cylindrical or lageniform cheilocystidia, lack of pleurocystidia, pileipellis as a cutis, pigmented, thick-walled and generally incrustated hyphae [1]. *C. mollis* macroscopically resembles *C. crocophyllus*. Both species produce flabelliform pileus covered with brownish fibrils and absence of stipe but *C. mollis* can easily be distinguished from *C. crocophyllus* by its elliptical spores. Like *C. crocophyllus*, *C. appalachianensis* Hesler & A.H. Sm., *C. subfibrillosus* Hesler & A.H. Sm. and *C. aureifolius* Hesler & A.H. Sm. have globose and punctate spores but the presence of the pleurocystidia are characteristic of these species [2,3].

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