First Record of *Cheimonophyllum* Singer from Turkey

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**Abstract:** This study deals with the first record of pleurotoid fungus *Cheimonophyllum candidissimum* (Berk. and M.A. Curtis) Singer (Cyphellaceae) growing on *Alnus* sp. wood from Kahramanmaraş, Turkey.

**Key words:** *Cheimonophyllum candidissimum*, *Cyphellaceae*, macrofungi, biodiversity

**INTRODUCTION**

The genus *Cheimonophyllum* Singer belongs to *Basidiomycota*, *Agaricales*, *Cyphellaceae* with three reported species (*Cheimonophyllum candidissimum* (Berk. and M.A. Curtis) Singer, *C. roseum* Segedin, *C. stypticoides* (Speg.) Singer) (http://www.indexfungorum.org). The genus was first described by Singer (1955) and is known to occur in Europe (Delivorias and Gonou-Zagou, 2008), North America (Bessette *et al.*, 1997), Brazil (Putzke, 2002) and New Zealand (Segedin and Pennycook, 2001). There is no record of this genus from Turkey. The only existing member of *Cyphellaceae* in Turkey is *Chondrostereum purpureum* (Pers.: Fr.) Pouzar (Sesli and Denchev, 2008).

During a field excursion in Kahramanmaraş province, some minute pure white basidioecarps were collected and determined as *Cheimonophyllum candidissimum* (Berk. and M.A. Curtis) Singer. On the basis of the existing checklists prepared by Solak *et al.* (2007) and Sesli and Denchev (2008), the genus seems to be a new record to the Mycobiota of Turkey and presented in this study.

The research aims to make a contribution to Turkish Mycobiota.

**MATERIALS AND METHODS**

Macrofungi samples were collected from Kahramanmaraş Province in 2004. Standard methods for identification of the agarics were followed. During field study digital colour photographs were taken and ecological features were noted. The specimens were dried, packed in polythene bags and kept at the Fungarium of Adıyaman University. Microscopic investigations were also performed in the same fungarium in 2008. Thin sections were obtained from softened pileus and studied in 3% KOH solution. Microstructures were investigated by using a Soit binocular light microscope and measured with a previously calibrated ocular micrometer. Finally, the specimens were identified following the descriptions of Singer (1955), Segedin (1994) and Bessette *et al.* (1997).

**RESULTS**

*Cheimonophyllum candidissimum* (Berk. and M.A. Curtis) Singer:

**Synonyms:** *Agaricus candidissimus* Berk. and M.A. Curtis
- *Agaricus haedinus* Berk. and Curt.
- *Geopetalum candidissimum* (Berk. and M.A. Curtis) Murrill
- *Geopetalum haedinus* (Berk. and Curt.) Murr.
- *Geopetalum subelatum* Murr.
- *Notothanas candidissimus* (Berk. and M.A. Curtis) Kühner
- *Pleurotus candidissimus* (Berk. and M.A. Curtis) Sacc.
- *Pleurotus haedinus* (Berk. and Curt.) Sacc.

Fruit body 3-8 mm, white when young, dingy white to pale yellow brown when dry. Shell shaped to reniform, inrolled at first then becoming convex to nearly flat. Surface covered with a white layer of minute hairs. Margin incurved when young, then even to sometimes lobed or slightly striate. Flesh thin, soft and whitish. Taste and odor unknown. Hymenophore lamellate, lamellae white, moderately broad and fairly distant (Fig. 1a). Stipe 0.5-1 mm, concolorous with the cap, insignificant when mature, sometimes absent.

Basidiospores 5.6-8×4.5-6 μm (5.86 × 5.36) Q = 1.09 (on the basis of 15 measurements) (Fig. 1c) subglobose to broadly pyriform with a cylindrical apiculus, thin walled, smooth, hyaline. Basidia clavate, 2-4 spored (Fig. 1), 17-30×5-6 μm, sterigmata 2.5-7 μm.

**Habitat:** On decaying *Alnus* sp. twigs in mixed forest.

**Distribution:** Kahramanmaraş, Yayaşıtu village, 37°34’N, 36°35’E, 1290 m, 20.11.2004, K: 2592.
DISCUSSION

Cheimonophyllum candidissimum is a pleurotoid, lignicolous fungus with small white basidiocarps. Though it has minute basidiocarp, it may be confused with Crepidotus epiphyllus (Fr.) Quél. and Panellus mitis (Pers.) Singer macro scopically, due to their similarity in shape, color and centrical attachment to the substrate. But the microscopic features especially shape of basidiospores distinguishes Cheimonophyllum from the other two genera. Cheimonophyllum is known to grow on branches of deciduous woods, such as Populus, Alnus, Fraxinus, Corylus, Fagus, Sorbus, Tilia, Salix, Ilex, Quercus and Platanus (Delivorias and Gonou-Zagou, 2008) as well as of conifers (Brown, 2008).

The macroscopic and the microscopic properties of the studied material are generally in accordance with the data given in earlier literature, except the width of the basidiospores. Delivorias and Gonou-Zagou (2008) measured it as being 5-6.5 μm while it was up to 6 μm in the studied samples.

Considering the systematic work of Kirk et al. (2008) and the list of the presented Turkish macrofungal taxa (Sesli and Denchev, 2008), Cheimonophyllum is to be the second genus of Cyphellaceae existing in Turkey. Chondrostereum Pouzar is the other genus of Cyphellaceae which was recorded as Chondrostereum purpureum (Pers. : Fr.) Pouzar from different region of Turkey.

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REFERENCES


