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PAGES: 156-158

ORIGINAL PDF URL: <https://dergipark.org.tr/tr/download/article-file/1192460>



A new record of *Chrysomphalina chrysophylla* (Basidiomycota, Hygrophoraceae) for Turkey

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Abstract

A new record for the Turkish mycota, *Chrysomphalina chrysophylla* (Fr.) Cléménçon, is reported. The species is described, illustrated, and briefly discussed. It represents a second member of *Chrysomphalina* in Turkey.

Key words: *Chrysomphalina chrysophylla*, New record, Turkey

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Türkiye’den yeni bir *Chrysomphalina chrysophylla* (Basidiomycota, Hygrophoraceae) kaydı

Özet

Türkiye mantarları için yeni bir kayıt, *Chrysomphalina chrysophylla* (Fr.) Cléménçon, rapor edilmiştir. Türün betimi ve resimleri verilerek kısa bir tartışması sunulmuştur. Bu kayıt *Chrysomphalina* genusunun Türkiye’deki ikinci üyesidir.

Anahtar kelimeler: *Chrysomphalina chrysophylla*, Yeni kayıt, Türkiye

1. Introduction

Chrysomphalina Cléménçon is a small genus consisting of four species worldwide (www.Mycobank.org). The members of this genus are white or pale spored; at maturity, their caps are depressed at the centre and gills are decurrent (Cléménçon, 1982).

Up to date, only one species connected with this genus, *Omphalina abiegna* (Berk. and Broome) Singer has been recorded from Turkey (cfr Sesli and Denchev, 2009). It has been found by Sümer (1982) in the western Black Sea Region. This name is a synonym of *Chrysomphalina grossula* (Pers.) Norvell, Redhead and Ammirati. In 2004, a second Turkish member, *C. chrysophylla* (Fr.) Cléménçon, was collected in Lişer high plateau, situated at a distance of about 54 km from Trabzon (Figure 1). The collection site is covered by spruce-fir forests (*Picea orientalis* (L.) Link. – *Abies nordmanniana* Spach) in the steep mountains. The damp climate of the region is favourable for mushroom growth.

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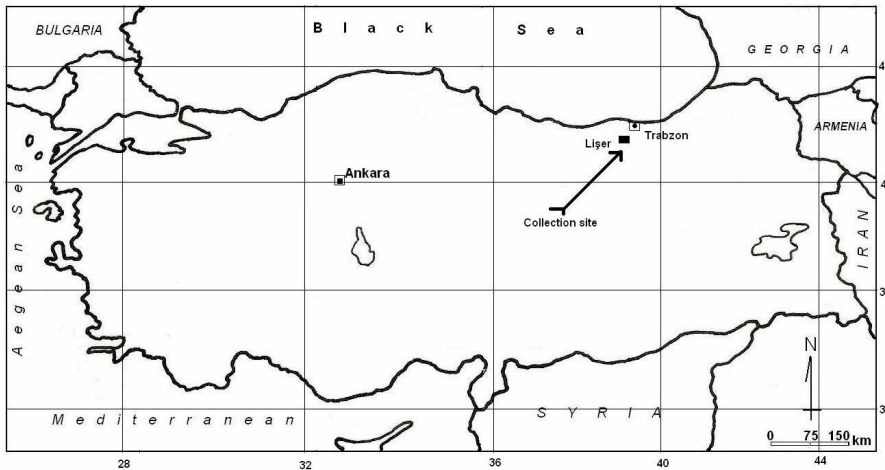


Figure 1. Collection site.

2. Materials and methods

In the field, the surrounding vegetation and general properties of the collected specimen were noted. Photographs of basidiomata were also taken. In the laboratory, spore prints were made in order to detect the spore mass colour and the spores to be used for measurements. Microscopical examinations were made according to Breitenbach and Kränzlin (1991) by the first author. Basidiomata were dried and then partly moistened by adding a few water drops, then were sectioned. Giemsa stain was used for staining the septate hyphae and spores. The herbarium specimen was deposited in a senior author's private herbarium (SES) at Fatih Education Faculty of Karadeniz Technical University, Trabzon, Turkey.



Figure 2. *Chrysomphalina chrysophylla* – basidiomata (bar = 2 cm); photo E. Sesli.

3. Results and Discussion

Chrysomphalina chrysophylla (Fr. : Fr.) Cléménçon, Z. Mykol. 48(2): 203 (1982).

Syn.: *Agaricus chrysophyllus* Fr. : Fr., 1821; *Omphalia chrysophylla* (Fr. : Fr.) Gillet, 1874; *Omphalina chrysophylla* (Fr. : Fr.) Murrill, 1916; *Armillariella chrysophylla* (Fr. : Fr.) Singer, 1943; *Gerronema chrysophyllum* (Fr. : Fr.) Singer 1959; *Haasiella chrysophylla* (Fr. : Fr.) Raithel., 1973; *Chrysobostrychodes chrysophyllus* (Fr. : Fr.) G. Kost, 1985. Colour photographs were published e.g. by Bon (1987), Courtécuisse and Duhem (1994), Ludwig (2000), Roux (2006).

Pileus: convex-depressed, fibrillose to scaly, brownish orange, greyish brown in the centre to yellowish brown towards the margin, 1-5.5 cm wide, thin-fleshed, margin generally incurved, becoming sometimes wavy with age, odour and taste pleasant. **Lamellae:** decurrent, golden to apricot-yellow, subdistant and broad. **Stipe:** surface glabrous, generally concolorous with the pileus, yellow to darker with age, 20-40 × 2-4 mm, base sometimes covered with white mycelium (Figure 2). **Hyphae of lamellae** 3-6.5 µm across (Figure 3a). **Basidia** and **marginal cells** clavate (true cheilocystidia absent) (Figure 3b). **Spores** ellipsoid to cylindrical, hyaline, nonamyloid, 7.5-15 × 4.5-6 µm (Figure 3c).

Habitat: clustered on decayed *Picea orientalis* wood.

Specimen examined: Trabzon, Maçka, Lişer high plateau, 1850 m, 18.09.2004 leg. E. Sesli, SES 2313. **Edibility:** unknown.

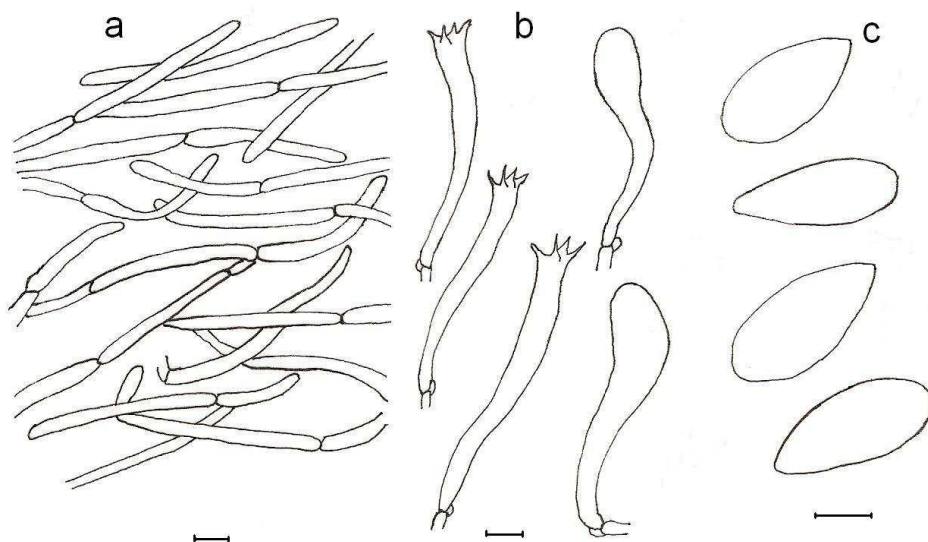


Figure 3. *Chrysomphalina chrysophylla*: (a) hyphal structure of lamellae (bar = 10 µm), (b) basidia and marginal cells (bar = 10 µm), (c) spores (bar = 5 µm); del. E. Sesli.

The epithet prefix ('gold' in Latin) refers to the orange yellowish gills. The basidiomata of somewhat similar *C. grossula* are smaller, green-yellow with initially convex, later uplifted pileus becoming almost white with age, distant, strongly decurrent and green-yellow, thickened gills, and smaller spores, 6-9.5 × 3.5-5.5 µm.

Chrysomphalina chrysophylla is a very rare species in the East Black Sea region. For 16 years of investigations, it has been collected only once.

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(Received for publication 27 April 2009; The date of publication 01 December 2009)