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Araştırma Makalesi / Research Article

Two New Records from Dermateaceae Family for Turkish Mycobiota

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Abstract: The *Dermateaceae* is a family within the order Helotiales. In this study, *Mollisia ligni* (Desm.) P. Karst. and *Pyrenopeziza rubi* (Fr.) Rehm species of *Dermateaceae* family were newly reported from Bingöl province (Turkey). Short descriptions and the photographs of the species are ensured and discussed briefly.
Keywords: Mycobiota, *Mollisia*, *Pyrenopeziza*, New record, Bingöl, Turkey

Dermateaceae Familyasından Türkiye Mikobiyotası İçin İki Yeni Kayıt

Özet: *Dermataceae*, Helotiales ordosu içinde yer alan bir mantar familyasıdır. Bu çalışmada, *Dermateaceae* familyasına ait *Mollisia ligni* (Desm.) P. Karst. ve *Pyrenopeziza rubi* (Fr.) Rehm türleri Bingöl ilinden ilk kez rapor edilmiştir. Türlerin kısa deskripsiyonları ve fotoğrafları verilmiş, kısaca tartışılmıştır.
Anahtar kelimeler: Mikobiyota, *Mollisia*, *Pyrenopeziza*, Yeni kayıt, Bingöl, Türkiye

Introduction

The family *Dermateaceae* is here defined in the traditional sense, based on excipulum composed, at yeast at the base, of globose or angular elements which are usually pigmented (Nauta and Spooner, 1999). The apothecial mushrooms that produce cup-shaped ascomata with various colors are commonly known as discomycetes. They represent approximately 9000 taxa, which are mycorrhizal, parasitic, saprobic, or lichenized (Uzun et al., 2014). Apothecia of *Dermateaceae* developed either within or below the epidermis and then immersed or becoming erumpent, sometimes subcuticular or superficial sessile or short-stipitate (Nauta and Spooner, 1999).

According to checklists on Turkish mycobiota (Solak et al., 2015; Sesli and Denchev, 2014) and recently added some data (Acar et al., 2015; Akata and Doğan, 2015; Acar and Uzun, 2016; Akçay and Uzun, 2016; Demirel et al., 2016; Denğiz ve Demirel, 2016; Doğan et al., 2016; and Allı et al., 2017), *Mollisia ligni* (Desm.) P. Karst. and *Pyrenopeziza rubi* (Fr.) Rehm have not been previously reported from Turkey.

The aim of this study is to make a contribution to the Turkish *Dermateaceae* by adding new species.

Materials and methods

Samples were accumulated from Bingöl in 2010. Relevant morphological and ecological features of the specimens were noted and they were photographed in their natural habitats. Then mushroom specimens were moved to the fungarium to work in detail. Distilled water, IKI, and 5% KOH were used for microscopic analysis. Microphotographs were taken under a light microscope (Leica DM 1000). The samples of mushroom were described with the help of Breitenbach and Kränzlin (1984), Baral (2001) and Thompson (2013). The identified samples were stored at the fungarium of Yüzüncü Yıl University in Van (VANF).

Results

Descriptions, photographs of apothecia, and microphotographs of asci, paraphyses, excipulum and spores are ensured. The taxonomy of the species follow that of Kirk et al. (2008).

Helotiales

Dermateaceae Fr

Mollisia ligni (Desm.) P. Karst.

Macroscopic and microscopic features

Ascocarp 0.5-1 mm, urceolate when young, then cup-to saucer-shaped, resting stalkless on the substrate, hymenium smooth, inner surface dark-gray to gray, margin whitish to whitish-gray especially in young stages. Apothecia showed a yellow KOH-reaction. Caespitose to crowded. **Asci** 8-spored, biseriate, 48-55 × 4.5-5.5 µm, amyloid. **Ascospores** 7-9 × 2-2.5 µm, ellipsoid-clavate, smooth, hyaline. **Paraphyses** filiform, forked, with slight clavate, thickenings towards the tips (Figure 1).

Bingöl, Genç, Tarlabaşı village, on bark of dead branch of oak, 38º41′475″N, 40º29′386″E, 1164 m, 14.10.2010, Uz-B. 1241.

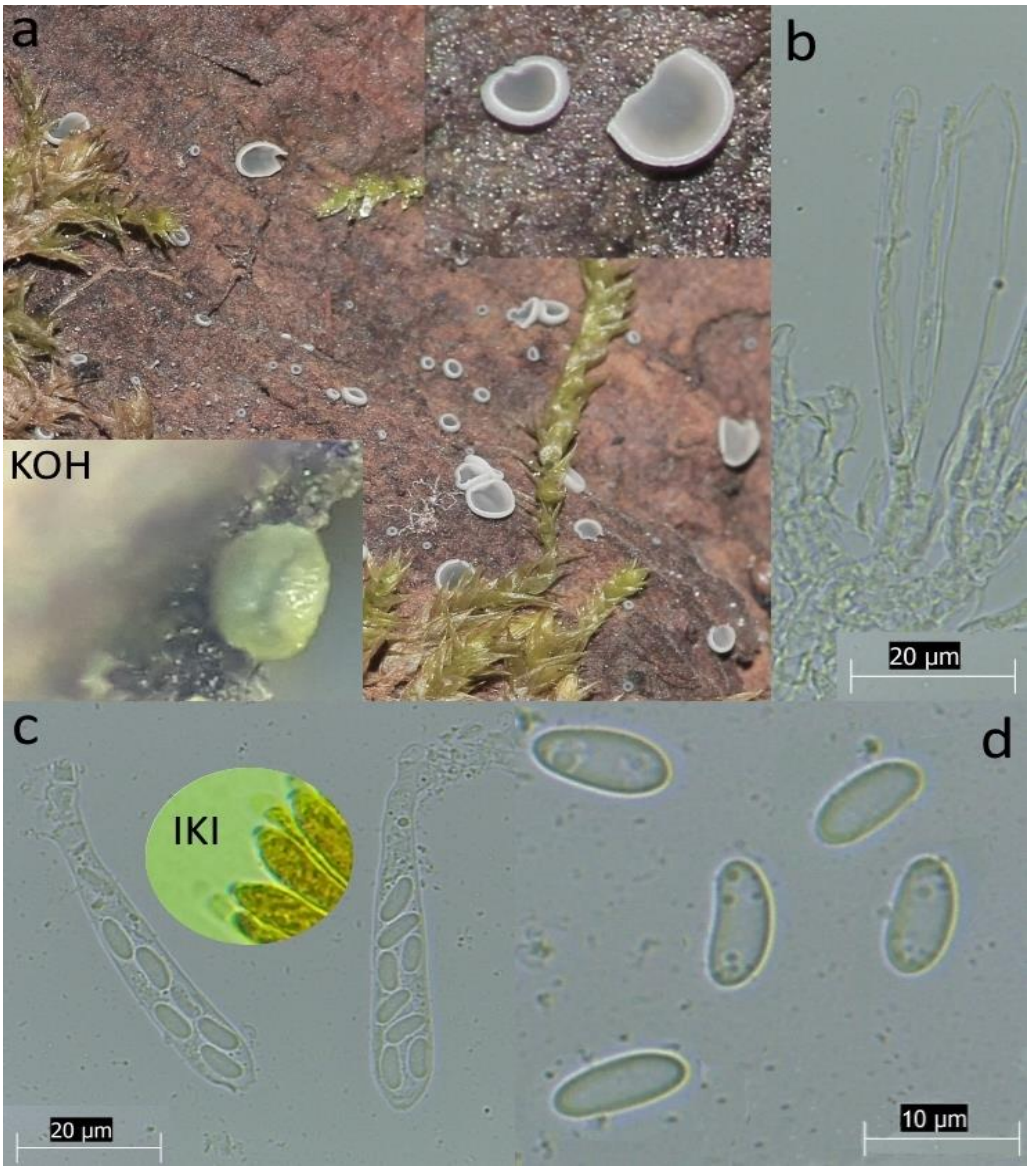

Figure 1. *Mollisia ligni* **a)** ascocarp (showed yellow KOH-reaction), **b)** forked paraphyses, **c)** asci (ascus apices in IKI), **d)** ascospores.

Pyrenopeziza rubi (Fr.) Rehm

Macroscopic and microscopic features

Ascocarp 0.5-1 mm wide, consist of yellowish grey hymenium, broad white margins and exteriors which are mid-brown, with protruding clavate end cells, growing scattered, without stalks, during spring and summer. **Asci** 40-60 × 5-7 µm, eight-spored and amyloid. **Paraphyses** quite slender, septate, with rounded tips. **Ascospores** 7-9.5 × 2-3 µm, somewhat septate, hyaline, smooth, ends rounded (Figure 2).

Bingöl, Genç, Tarlabaşı village output, on dead branch of oak, 38º41′580″N, 40º29′291″E, 14.05.2010, 1276 m, Uz-B. 1237.

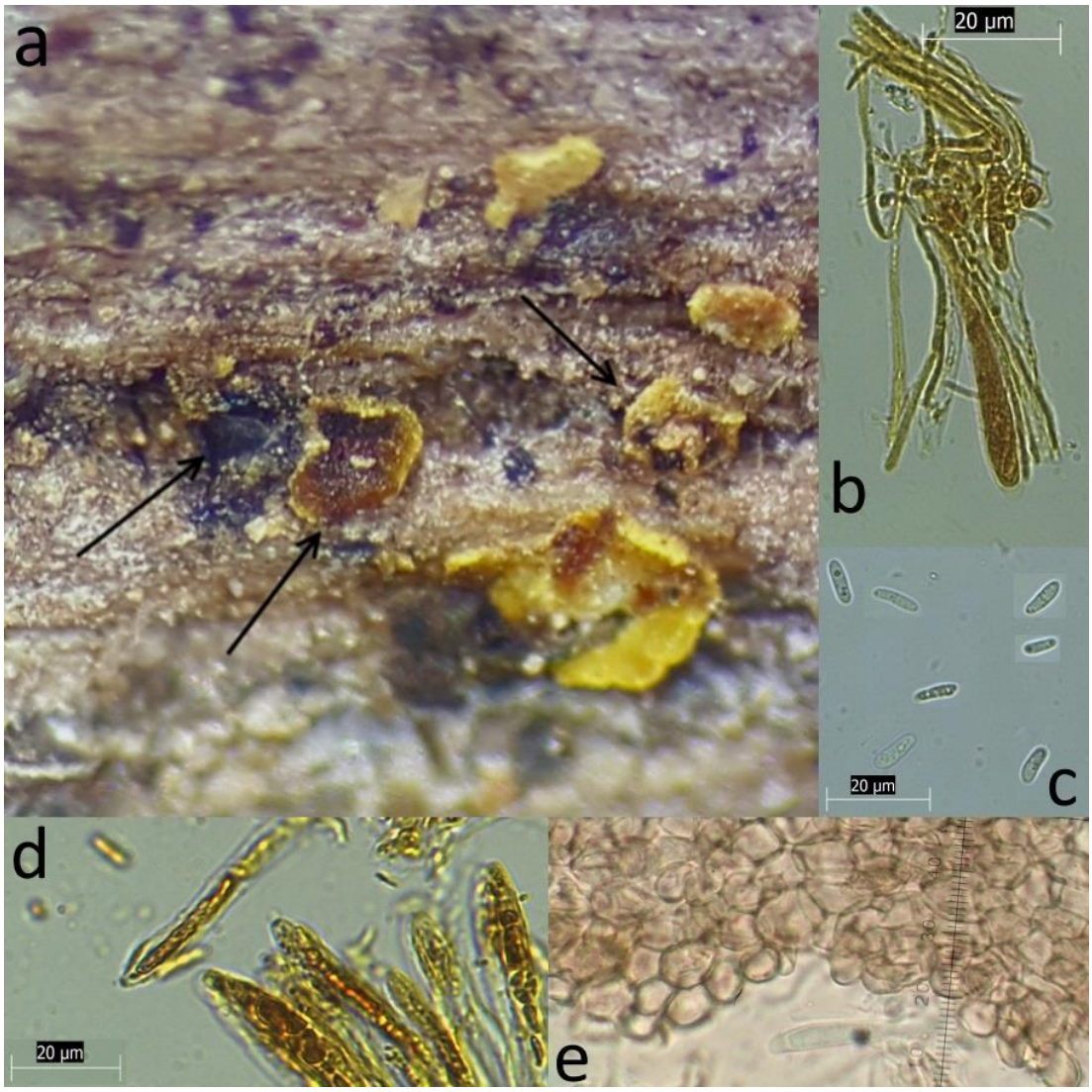

Figure 2. *Pyrenopeziza rubi* a) ascocarp, b) asci and paraphyses (IKI), c) ascospores, d) ascus apices (IKI), **e)** excipulum.

Discussion

Mollisia ligni occurs quite common on periodically dry, air-exposed wood up to 2 m above ground, but is rarely reported because this habitat is currently neglected by collectors (Baral, 2001). *Mollisia ligni* is mentioned under *M. cinerea* and *M. melaleuca* species described here is primarily distinguishable only by nuances of colour of the fruiting body (Breitenbach and Kränzlin, 1984). Apothecium treated

with KOH resulted in a yellowish colour which is one of the important parameters to distinguish species. In its original sense it is a species with a brown short-haired margin and inamyloid asci (Baral, 2001). According to Thompson (2013), asci amyloid in IKI.

The genus *Pyrenopeziza* is morphologically quite similar to *Mollisia*. It contains species which develop principally as spheres under the epidermis of stems or leaves of herbaceous plants. *P. rubi* and *P. escharodes* are indistinguishable with respect to appearance, but ascospores of *P. escharodes* are never septate and up to 9 × 2.5 µm (Breitenbach and Kränzlin, 1984).

With this study, *Mollisia ligni* and *Pyrenopeziza rubi* are newly recorded from Bingöl in Turkey, and a contribution was made to Turkish Mycobiota by increasing the current number of *Mollisia* and *Pyrenopeziza* in Turkey to 5 and 3 respectively.

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