Two New Additions to Turkish Ascomycota

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Abstract: Ciboria coryli (Schellenb.) N.F. Buchw. (Sclerotiniaceae) and Peziza saniosa Schrad. (Pezizaceae) are new records for the macrofungi of Turkey. Short descriptions and photographs of macro and micromorphologies of the taxa are given.

Key words: Macrofungi, new records, Turkey

INTRODUCTION

The genus Ciboria Fuckel, a genus in the family Sclerotiniaceae, was circumscribed by the German botanist Karl Fuckel in 1870 (Fuckel, 1870) and is characterized by the excipular tissue comprising globose to angular cells arranged in elements oriented at a high angle to the surface of the receptacle (Johnston, 2002).

Peziza Dill. ex Fr., the type genus of the family Pezizaceae (Norman and Eggert, 1999), is generally characterized by epigeous, sessile or stipitate, cup-shaped, cupulate, turbinate, pulvinate or sparsely apothecia which range in size from a few millimeters to more than 10 centimeters in diameter (Barseghyan and Wasser, 2010). The genus has a history of almost 300 years since it was first erected by Dillenius in 1719, and the interpretations made on this genus during this period were summarized by Rifaí (1968).

Ciboria and Peziza are widespread genera with 21 and 104 confirmed taxa, respectively (Kirk et al., 2008) and both of C. coryli and P. saniosa currently exist in many countries (Dimitrov, 2002; Barseghyan and Wasser, 2010). Compared to such diversity, only one member of Ciboria, C. rufofusca (O. Weber) Sacc., (Kaya, 2009) and 20 members of Peziza have so far been recorded from Turkey (Sesli and Denchov, 2009).

During field studies in Trabzon province some ascomycetous macrofungi samples were collected. After laboratory studies, two of them were identified as Ciboria coryli (Schellenb.) N.F. Buchw. (Sclerotiniaceae) and Peziza saniosa Schrad. (Pezizaceae.) According to the literature on Turkish macrofungi (Turkekul, 2003; Solak et al., 2007; Turkoglu et al., 2008; Uzun et al., 2009; Aktas et al., 2009; Keles and Demirel, 2010; Akata and Kaya, 2010; Sesli and Denchov, 2009; Akata et al., 2011), both of them are new records for the tamancymycota of Turkey.

The study was aimed to make a contribution to Turkish mycobiota.

MATERIALS AND METHODS

Fruit bodies of the specimens were collected from Uzungöl and Yomra districts of Trabzon province (Turkey) between 2010 and 2011. During field studies, necessary data related to morphology and ecology of the samples were recorded and they were photographed in their natural habitats. Then the samples were taken to the fungarium for further investigations. To obtain microscopic data, a Leica DM 1000 trinocular light microscope with ocular micrometer, distillate water, 5% KOH and Melzer’s reagent were used. Identification of the species was performed with the help of Breitenbach and Kranzlin (1984), Hansen and Knudsen (2000) and Modarres (2006). The identified specimens are deposited at the herbarium of Ankara University (ANK).

RESULTS

Ciboria coryli taxonomy:
Kingdom: Fungi
Division: Ascomycota
Class: Leotiomycetes
Sub-class: Leotiomyoctidae
Order: Holotiales
Family: Sclerotiniaceae
Species name: Ciboria coryli (Schellenb.) N.F. Buchw. (1943)
Syn: Sclerotinia coryli Schellenb (1906)

Macroscopic and microscopic features: Apotecia 10-35 mm broad, cupuliform, pale brown, stem 10-25×0.5-1 mm, hymenium smooth brownish to pale brown, outer surface the same color (Fig. 1a). Ascii 8 spored, 140-170×7-10 µm

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20 µm

Fig. 1: *Ciboria coryli* (a) Asccarps, (b) Asci and paraphyses, (c) Ascus and (d) Spores

(Fig. 1b, c), paraphyses cylindrical, Ascospores 15-16×6-8 µm (Fig. 1d), smooth, hyaline.

**Ecology:** male catkins of *Corylus avellana* L.

**Specimen examined:** Trabzon, Yomra, Ikişi Village, on male catkins of *Corylus avellana* L., 40°55' N - 39°47' E, 170 m, 25. 05. 2010, Akata 3106.

**Peziza saniosa** taxonomy:
Class: Pezizomycetes
Sub-class: Pezizomycetidae
Order: Pezizales
Family: Pezizaceae
Species name: *Peziza saniosa* (Schrad, 1799)
Syn: *Aleuria saniosa* (Schrad ) Gillet (1879); *Galactinia saniosa* (Schrad.) Sacc. (1889); *Plicaria saniosa* (Schrad.) Rehm (1896).

**Macroscopic and microscopic features:** Apotecia 15-30 mm broad, disc to cup shaped, hymenium smooth, light blue-violet, outer surface dingy brown to brownish, resting stalkless on the substrate (Fig. 2a), exuding bluish violet juice when injured. Asci 260-270×13 µm, eight spored (Fig. 2c). Paraphyses, cylindrical, septate, slightly clavate at the tips (Fig. 2b). Ascospores 15-16×7-8 µm, elliptical, hyaline, with irregular coarse warts, with two drops (Fig. 2d).

**Ecology:** Rare, summer to autumn, singly to gregarious, broad-leaved and coniferous forests among mossy, grassy and bare ground.

**Specimen examined:** Trabzon: Uzungöl Nature Protect Area, under *Picea orientalis* (L.) Link, on soil, 40°36' N-40°17' E, 1475 m, 24. 08. 2011, Akata 4007.
DISCUSSION

The genus *Ciboria* was restricted by most authors to species occurring on fruits or catkins of ameni-ferous trees and shrubs (Johnston, 2002). *Ciboria caaucus* (Revent.: Fr.) Fuckel, type species of the genus, for example, grows on catkins of *Populus*L., *Salix*L. and *Corylus*. *C. coryli* is similar to *C. caaucus* in many ways, but it grows only on male catkins of *Corylus avellana*. Spore size is another distinguishing character between two species, where *C. caaucus* has spores up to 10 μm while the spores of *C. coryli* are much more longer (Medardi, 2006).

Since *Peziza* Dill. ex Fr. is a large and a broadly defined genus, sometimes it is not possible to find clear diagnostic characteristics for defining the taxa. That’s why many *Peziza* species have a rich synonymy due to placement of some species in different genera by different authors (Barseghyan and Wasser, 2010). One reason of this inaccuracy is the lack of certain critical characters, such as hymenial color and production of colored juice, due to inadequate study of fresh materials (Pfister et al., 2007). Even studying the fresh samples, some characters, such as color, may also be problematic. Probably it is also the case for *P. santosa*. Dennis (1978) and Moser (1963) state the color of the outer surface as being dark grayish brown, as it is the case for our samples, but Breitenbach and Kranzlin (1984) and Barseghyan and Wasser (2010) have recorded their fresh samples to have distinctly dark purple color. For this fungus, yield of bluish juice, which is exuded when the fresh material injured, overcomes this problem (Breitenbach and Kranzlin, 1984; Barseghyan and Wasser, 2010).

With this study new distributions of *Ciboria coryli* (Schellp.) N. F. Buchw. (*Sclerotiniaceae*) and *Peziza santosa* Schrad. (*Pezizaceae*) were given and a contribution was made to Turkish mycobiota by adding new records.

REFERENCES


