



## ***Lasiosphaeria ovina*, the first record for family *Lasiosphaeriaceae* in Turkey**

Başaran DÜLGER<sup>1</sup>, Ilgaz AKATA\*<sup>2</sup>

<sup>1</sup>Duzce University, Faculty of Science and Arts,  
Department of Biology, 81620, Konuralp/ Düzce Turkey

<sup>2</sup>Ankara University, Faculty of Science,  
Department of Biology, 06100, Tandoğan, Ankara, Turkey.

**Abstract:** In the current study, *Lasiosphaeria ovina* (Pers.) Ces. & De Not (*Lasiosphaeriaceae*) was recorded for the first time from Turkey at family level. A short description, the photographs of macro and the micro morphologies of the species are provided.

**Key words:** *Lasiosphaeria ovina*, *Lasiosphaeriaceae*, new record, Turkey

### ***Lasiosphaeria ovina*, *Lasiosphaeriaceae* familyası için Türkiye' den ilk kayıt**

**Öz:** Mevcut çalışmada, *Lasiosphaeria ovina* (Pers.) Ces. & De Not (*Lasiosphaeriaceae*) Türkiye'den ilk kez familya düzeyinde kaydedilmiştir. Türün kısa deskripsiyonu, makro ve mikro morfolojilerine ilişkin fotoğrafları verilmiştir.

**Anahtar Kelimeler:** *Lasiosphaeria ovina*, *Lasiosphaeriaceae*, yeni kayıt, Türkiye

#### **Introduction**

*Lasiosphaeriaceae* is the largest family of order *Sordariales* within the division *Ascomycota*. The family contains 36 genera and approximately 300 species that occur worldwide as saprobes on lignicolous substrates and commonly found in temperate regions (Kirk et al., 2008; Kruys et al., 2014).

*Lasiosphaeria* is one of the largest genus of the family and it has 60 widespread species. Members of the genus are characterized by immersed to erumpent, or superficial, globose to obpyriform, glabrous, tomentose, ostiolate, setose or villose peritechia, eight spored, cylindrical to clavate asci, aseptate to multiseptate, hyaline to yellowish or pale brown, cylindrical, filiform, allantoid or fusiform spores usually with hyaline appendages (Miller and Huhndorf, 2004; Kruys et al., 2014; Talde, 1977).

According to the checklists (Sesli and Denchev, 2008; Solak et al., 2015) on Turkish

larger fungi, there are no records for Turkey of members related to family *Lasiosphaeriaceae*.

This study aims to make a contribution to Turkish mycobiota.

#### **Materials and methods**

Fungi samples were collected from Düzce in July 30, 2015. During field study, relevant morphological and ecological features of the samples were noted. Thereafter they were taken to the laboratory for further investigations. Both microscopical and stereomicroscopical observations have been realised for taxonomical approaches. In the meantime, some photographs from characteristic qualitative objects were taken. Identification was performed with the aid of the literature (Breitenbach and Kranzlin, 1984; Ellis and Ellis, 1987; Talde, 1977). The identified samples were deposited at Ankara University Herbarium (ANK).

\*Corresponding author: akata@science.ankara.edu.tr



## Results

**Ascomycota** Caval.-Sm.

**Sordariales** Chadef. ex D. Hawksw. & O.E. Erikss.

**Lasiosphaeriaceae** Nannf.

**Lasiosphaeria ovina** (Pers.) Ces. & De Not.

**Syn.:** *Lasiella ovina* (Pers.) Quél., *Lasiosordaria vagans* (Chenant.) Chenant., *Lasiosordariella ovina* (Pers.) Chenant., *L. ovina* var. *aureliana* (Fairm.) Chenant., *L. ovina* var. *sulphurella* Chenant., *L. ovina* var. *vagans* Chenant., *Lasiosphaeria chrysentera* Carroll & Munk, *L. ovina* var. *aureliana* Fairm., *L. ovina* var. *vagans* Chenant., *Leptospora ovina* (Pers.) Fuckel, *Sphaeria nivea* Sowerby, *S. ovina* Pers.

## Macroscopic and microscopic features

Perihecia scattered to gregarious, superficial, white with dot-like ostioles, flask shaped, 0.4-0.6 mm diam. (Figure 1). Asci 180-210 × 12-16 μm, cylindrical, biseriata, eight spored (Figure 2). Spores cylindrical, curved, smooth, yellowish, with drops, 36-42 × 4-5 μm, bipolar appendage occasionally present up to 25 μm in length (Figures 3).

**Ecology:** Not common, all year, on rotten wood (Breitenbach and Kranzlin, 1984).

**Specimen examined:** TURKEY—Düzce: Düzce, Konuralp, Düzce University Campus area, on dead hardwood branch, 40° 54' 25" N, 31° 11' 5" E, 240 m, 30.07.2015, B. Dülger, 727.

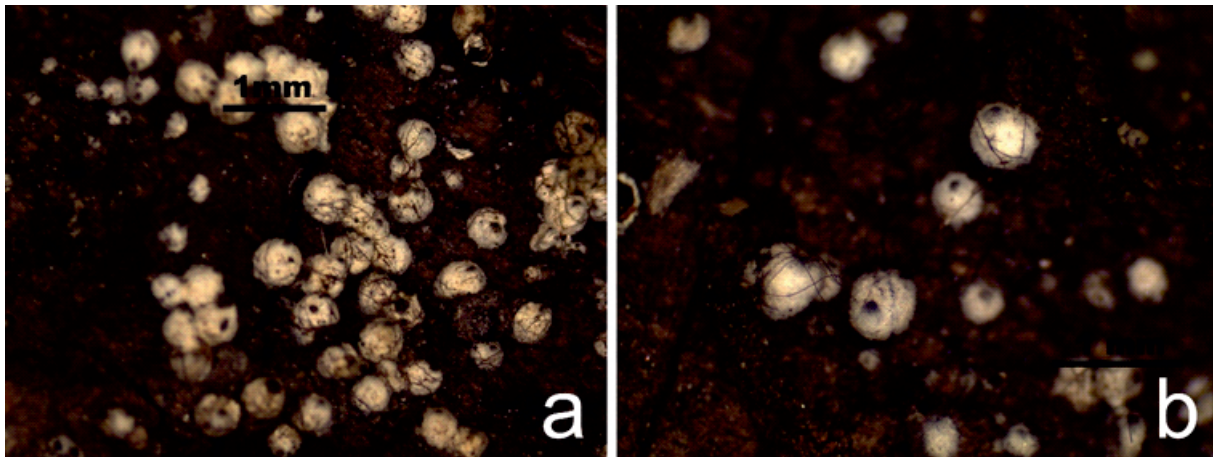


Figure 1a-b. Stromata of *Lasiosphaeria ovina*



Figure 2. Asci of *Lasiosphaeria ovina*

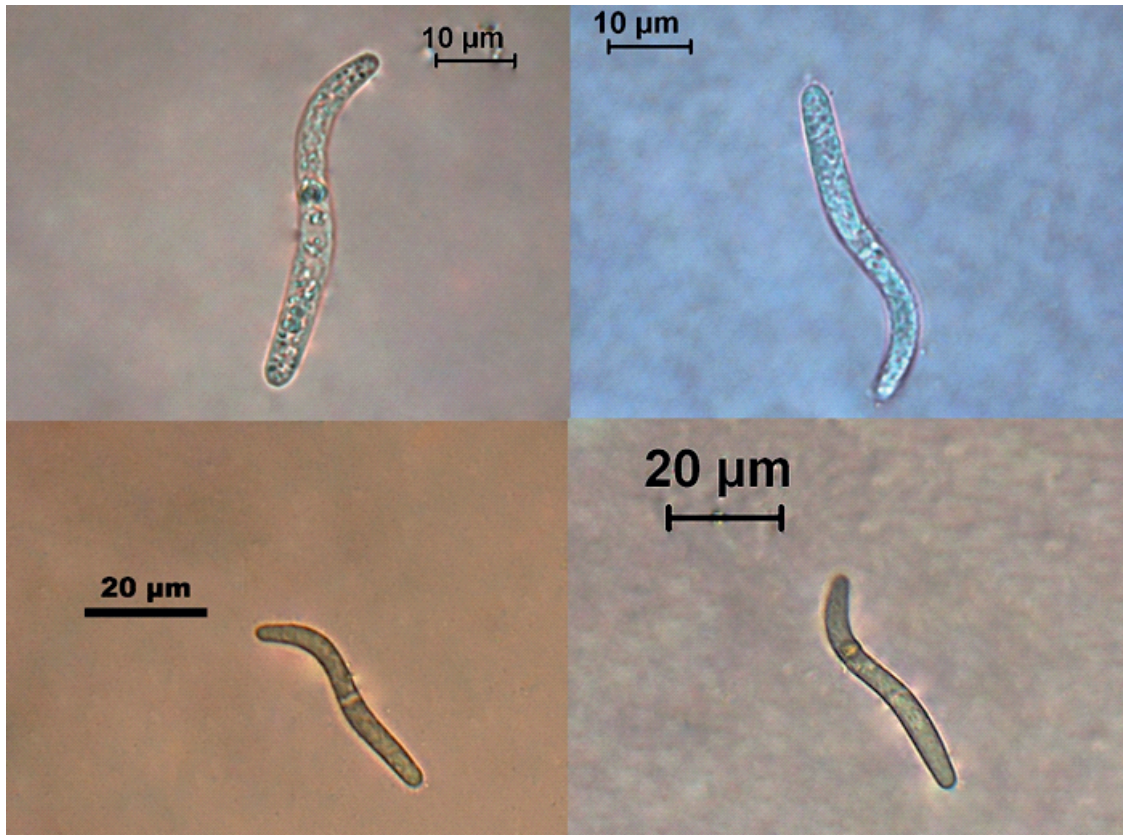


Figure 3. Spores of *Lasio-sphaeria ovina*

### Discussion

*Lasio-sphaeria ovina* is characterized by the furfuraceous-scurfy hyphal tissue that surrounds the peritochia. This feature separates the species from the naked or hairy members of the genus and it can easily be recognized in the field (Breitenbach and Kranzlin, 1984).

According to the current literature (Acar et al., 2015; Akata and Doğan, 2015; Akata et al., 2013; 2014a; 2014b; Çolak et al., 2015; Demirel et al., 2015; Güngör et al., 2015a; 2015b; 2015c; Kaya 2015; Sesli and Denchev, 2008; Solak et al., 2015; Uzun et al., 2014; 2015a; 2015b), 256 species, 110 genus belonging to 35 family (*Amphisphaeriaceae* G. Winter, *Ascobolaceae* Boud., *Ascodesmidaceae* J. Schröt., *Bertiaceae* Smyk, *Bulgariaceae* Fr., *Caloscyphaceae* Harmaja, *Cudoniaceae* P.F. Cannon, *Dermateaceae* Fr., *Diatrypaceae* Nitschke, *Discinaceae* Benedix, *Elaphomycetaceae* Tul.

ex Paol., *Geoglossaceae* Corda, *Helotiaceae* Rehm, *Helvellaceae* Fr., *Hemiphacidiaceae* Korf, *Hyaloscyphaceae* Nannf., *Hypocreaceae* De Not, *Hysteriaceae* Chevall., *Lachnaceae* Raitv., *Leotiaceae* Corda, *Morchellaceae* Rchb., *Melanconidaceae* G. Winter, *Nectriaceae* Tul. & C. Tul., *Orbiliaceae* Nannf., *Pezizaceae* Dumort., *Pyronemataceae* Corda, *Rhizinaceae* Bonord., *Rhytismataceae* Chevall., *Rutstroemiaceae* Holst-Jensen, L.M. Kohn & T. Schumach., *Sarcoscyphaceae* Le Gal ex Eckblad, *Sarcoscyphaceae* Le Gal ex Eckblad, *Sarcosomataceae* Kobayasi, *Sclerotiniaceae* Whetzel, *Valsaceae* Tul. & C. Tul., *Vibrissaceae* Locq. and *Xylariaceae* Tul. & C. Tul.) of larger Ascomycete fungi have so far been reported from Turkey.

With the present study, *Lasio-sphaeria ovina* is reported for the first time from Turkey at family level and it will be the first member of Turkish 36<sup>th</sup> larger Ascomycete family.



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