Two New Taxa Records for the Macrofungi of Turkey

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Abstract: Lachnum virgineum (Batsch) P.Karst (Hyaloscyphaceae) and Hymenoscyphus fructigenus (Bull.) Gray (Helotiaceae) are recorded for the first time from Turkey.

Key Words: Ascomycetes, Lachnum, Hymenoscyphus, Macrofungi, Turkey

Introduction

Macrofungi specimens were collected during field studies in Bozkır and Kestel districts. After field and laboratory studies were completed, the 2 species given above were identified for the first time from Turkey.

Bozkır and Kestel districts are situated in Central Anatolia in Turkey.

The climate of Bozkır is humid and semi-humid Mediterranean. The average rainfall in the region is 786.2 mm. The prevalent deciduous trees are Populus sp. L., Quercus sp. L. and Salix sp. L. The coniferous trees are Abies cilicica (Ant. & Kotschy) Carr. subsp. isaurica Coode & Cullen, Juniperus excelsa M.Bieb. and Pinus nigra J.F.Arnold subsp. nigra var. caramanica (Loudon) Rehder.

The climate of Kestel is semi-dry and very cold Mediterranean. The prevalent trees in the province are Pinus nigra subsp. nigra var. caramanica, Juniperus foetidissima Willd., Juniperus oxycedrus L. subsp. oxycedrus, Quercus pubescens Willd., Q. ithaburensis Decne. subsp. macrolepis (Kotschy) Hedge & Yalt. and Cistus laurifolius L.

Materials and Methods

The field study has been chiefly carried out in the autumn and spring, since the climatic conditions during these periods are most suitable for fruiting body formation.

Macrofungi specimens were collected on oak branches and pine cones. Colour of macrofungi locality and characteristics of habitat etc. were noted during the collection. Later, photographs of specimens were taken using a binocular microscope. Microscopic features were drawn using a Nikon microscope.

The morphological features, and spore properties of dry and fresh macrofungi specimens were studied and they were identified using Turkish macrofungi flora (Baytop, 1994; Sesli & Denchev, 2005) and Ascomycetous macrofungi (Breitenbach & Kranzlin, 1984). The samples are kept at Selçuk University, Mushroom Fungarium Application and Research Centre in Konya, Turkey.
Results

Helotiales

Hyaloscyphaceae


Syn: Chaetocalathus bicolor (Pat. & Demange) Singer
Crinipellis bicolor Pat. & Demange
Dasyscyphus virgineus (Batsch) Gray
Lachnella bicolor (Pat. & Demange) Locq.
Lachnella virginea (Batsch) W.Phillips
Marasmius bicolor (Pat. & Demange) Sacc. & Trotter
Peziza virginea Batsch

Fruiting body 0.5-1 mm (Figure 1), cup and saucer shaped, distinctly stalked, hymenium white-cream, smooth, outer surface and margin white, with white hairs, stalk cylindrical, white-cream, with white hairs, 0.5-1 mm long.

Ascospores 6-8 x 1.5 µ, fusiform, smooth, hyaline, not septate. Asci 40-45 x 3.5-4 µ, 8-spored, paraphyses lanceolate, septate, projecting beyond the asci (Figure 2).

Konya-Kestel; in pine forest, on pine cone, 09.11.2002, Kaşik, Doğan 371.

Helotiaceae

Hymenoscyphus fructigenus (Bull.) Gray, A Nat. Arr. of British Plants 1: 673 (1821).

Syn: Ciboria fructigena (Bull.) Killerm.
Helotium fructigenum (Bull.) Fuckel
Helotium virgultorum var. fructigenum (Bull.) Rehm
Leptostroma virgultorum var. fructigenum (Bull.) Rehm
Peziza fructigena Bull.
Phialea fructigena (Bull.) Gillet

Fruiting body 1-4 mm (Figure 3), cup-shaped to flat and saucer shaped, distinctly stalked, hymenium whitish to ochre-whitish, smooth, outer surface and stalk the same colour, stalk cylindrical, to 5 mm long and smooth.

Figure 1- Ascocarp of Lachnum virgineum.
Ascospores 13-19 x 3-4 µ, irregularly fusiform, smooth, hyaline, with 2 or several drops, sometimes septate. Asci 100-180 x 7-8 µ, 8-spored, paraphyses cylindrical, septate, sometimes forked (Figure 4).

Konya-Bozkır; between the towns of Dere and Sorkun, in fir-oak forests, on dead branches of oak, 17.11.2002, Aktaş, Öztürk 390.

Discussion and Conclusion

The first record for the genus Lachnum Retz. was given by Sümére (1982) as Dascyscyphus cerinus = Lachnum cerinum (Pers.) Nannf. L. virgineum is quite different from L. cerinum by its white fruit body, bigger spores and lanceolate paraphyses.

H. fructigenus is easily differentiated from H. calyculus, which was published by Solak et al. (1997), by its white ascocarp, irregularly fusiform and septate spores, and cylindrical paraphyses.
References


Figure 4. a) Ascus b) Ascospores c) Paraphyses of Hymenoscyphus fructigenus.