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Araştırma Makalesi / Research Article

A New Edible Macrofungus Record for Turkey

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Abstract

A new edible species, Tricholomella constricta (Fr.) Zerova ex Kalamees belonging to the family Lyophyllaceae, is given as new record for the mycobiota of Turkey from Sarıkamış Allahukeber Mountains National Park (Kars).

A brief description of the species is given together with its photographs related to macro and micromorphologies.

Keywords: New record, Edible, Turkey, Macrofungus.

Türkiye için Yeni Yenen Bir Makromantar Kaydı

Özet

Lyophyllaceae familyasına ait yenen bir tür olan *Tricholomella constricta* (Fr.) Zerova ex Kalamees Sarıkamış Allahuekber Dağları Milli Parkı'ndan (Kars) Türkiye mikobiyotası için yeni kayıt olarak verilmiştir.

Türün kısa betimlemesi makro ve mikromorfolojisine ait fotoğraflarla birlikte verilerek kısaca tartışılmıştır.

Anahtar kelimeler: Yeni kayıt, Yenen tür, Türkiye, Makromantar.

Introduction

Tricholomella is a fungal genus in the family *Lyophyllaceae* (*Basidiomycota*, *Agaricomycetes*, *Agaricales*).

The genus is monotypic, containing the single species *Tricholomella constricta*, described as new to science by Ukrainian mycologist Mariya Yakovlevna Zerova in 1979. Zerova's original publication was invalid, and it was later republished validly by Kuulo Kalamees in 1992.

The fungus is found in Asia and east of Europe (Kalamees, 1992).

Tricholomella constricta is rarely recorded although widespread. It is described as fruiting on soil among grass in woodland scrub or woodland edges with either deciduous or coniferous trees (Overall, 2013; Phillips, 2013).

Tricholomella constricta is more likely to be found at areas of urine of various animals, especially dogs (Marren, 2012).

During routine field studies in Sarıkamış Allahuekber Mountains National Park (Kars) some basidiomes were collected. *Tricholomella constricta*, was described as a new record according to the current checklists on Turkish macromycota (Sesli and Denchev, 2014; Solak et al., 2015) and the latest contributions to the basidiomycetous macrofungi of Turkey (Demirel et al., 2016; Akata and Sesli, 2017; Akata and Uzun,

2017; Allı et al., 2017; Demirel et al., 2017; Işık and Türkekul, 2017; Kaşık et al., 2017; Keleş et al., 2017; Keleş and Şelem, 2017; Özkazanç et al., 2017; Öztürk et al., 2017; Sesli and Topcu Sesli, 2017; Türkekul, 2017; Türkekul and Işık 2017; Uzun et al., 2017a,b; Işık and Türkekul, 2018a,b; Sadullahoğlu and Demirel, 2018; Sesli and Liimatainen, 2018; Uzun et al., 2018a,b; Sesli, 2018; Uzun and Acar, 2018; Uzun and Kaya, 2018a,b; Şelem et al., 2019; Keleş, 2019; Acar et al., 2019). The present study aims to make a contribution to the macrofungi of Turkey.

Materials and Method

Specimens were collected from Boyalı village, Sarıkamış (Kars-Turkey) at Allahuekber Mountains National Park in 2014. Morphological and ecological chracteristics of the samples were recorded during the field study and they were photographed in their natural habitats. Then, they were taken to the laboratory and microscopic investigations were carried out on them.

Microscopic investigations of the samples were done by using a Leica DM500 light microscope mounted Leica ICC50 HD camera.

Identification was performed with the aid of the relevant literature (Moser, 1983; Kalamees, 1992).

Results

Basidiomycota R.T. Moore
Agaricales Underw.
Lyophyllaceae Jülich
Tricholomella Zerova ex Kalamees
Tricholomella constricta (Fr.) Zerova ex Kalamees

Macroscopic features (Fig. 1.a): Cap, 20-60 mm across, hemispherical to convex, sometimes with an obtuse umbo; silky white, slightly brownish, yellowish or greyish at the center; smooth.

Flesh, white, thick, smell and taste strong mealy, no colour change.

Gills, white, sometimes with pinkish tinge, narrow, broad, almost free.

Stem, 20-55 x 10-15 mm, white, slightly floccose when young, then fibrillose, smooth, cylindrical or slightly tapered at the base, sometimes rooting.

Velum, white, membranaceous, quickly disappearing.

Microscopic Features: Spores, 7-10 x 5-6 µm, hyaline, ellipsoid to oval, distinctly echinulate (Fig. 1.b).

Spore print, white.

Basidia, 25-35 x 6-8 µm, slenderly clavate, with 4 sterigmata (Fig.1.c).

Hymenial cystidia absent.

Specimen examined: Kars, Sarıkamış, Boyalı village vicinity, *Pinus sylvestris* L. forest clearance, on soil among grass, 40° 26.123'K, 42° 33.312'D, 2191 m, 29.05.2016, MEA. 965.

Discussions

So far the genus *Tricholomella* has been by different authors incorporated in several other genera, such as *Tricholoma* (Fr.) Staude, *Armillaria* Kumm., *Lyophyllum* P. Karst., *Calocybe* Kühner ex Donk, *Lepiota* (Pers.) S.F. Gray, and *Melanoleuca* Pat. The genus *Tricholomella* differs from the five first named genera in the presence of echinulate spores and from the genus *Melanoleuca* in having inamyloid spores (Kalamees, 1992).

Our country competing with the whole European continent in terms of plant and animal diversity, but the species of macrofungi identified so far are very low compared to Europe (Sesli and Denchev, 2014; Solak et al., 2015).

Although our country is rich in wild edible fungi, our people do not get enough benefit from this natural resource. It is very important that such studies continue to be intensified so that sufficient benefit can be obtained.

Contributed to natural edible resources and biodiversity of Turkey by determined the *Tricholomella constricta* species for the first time in our country.

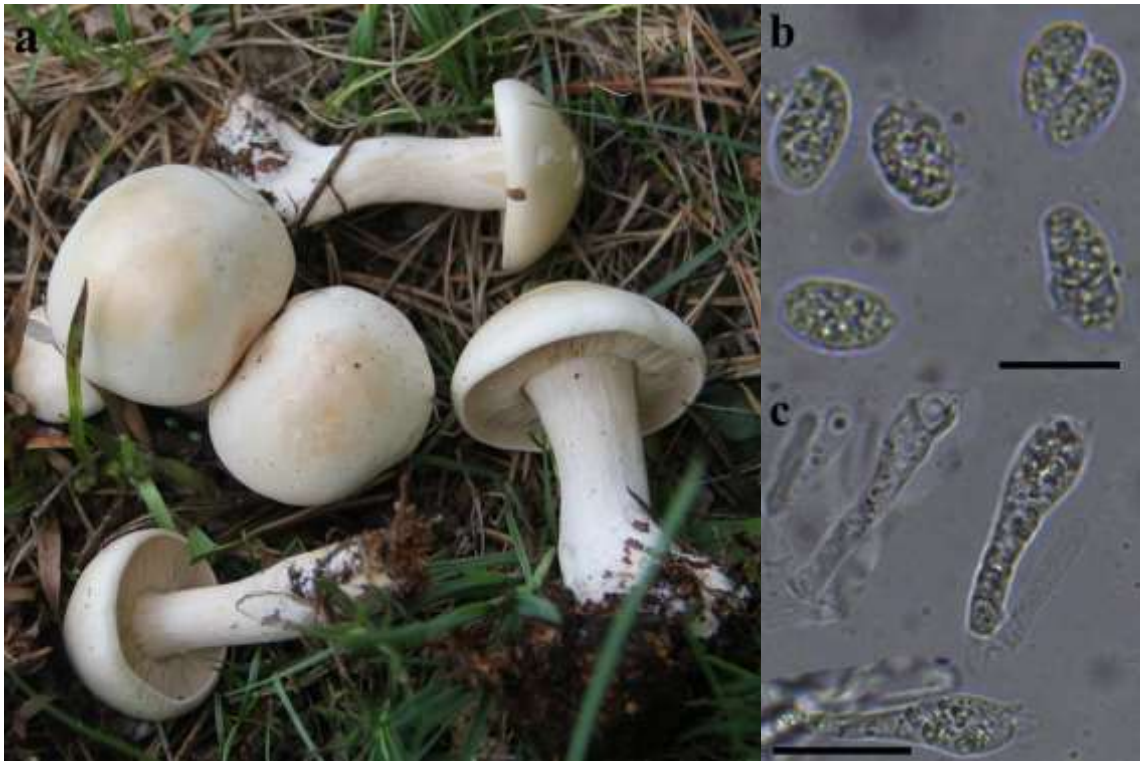

Figure 1. a. Basidiocarps, **b.** basidiospores and **c.** basidia of *Tricholomella constricta* (Bars= 10 µm).

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