

***Resupinatus striatulus* (Pers.) Murrill; A New Record for The Mycota of Turkey**

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Abstract

An interesting cyphelloid species, *Resupinatus striatulus* (Pers.) Murrill belonging to the family *Pleurotaceae*, is given as new record for the mycobiota of Turkey from Tuşba district of Van province.

A brief description of the taxon is presented with its photographs related to macro and micromorphologies.

Keywords: New record, *Resupinatus*, Turkey, mycobiota

***Resupinatus striatulus* (Pers.) Murrill; Türkiye Mikotası için Yeni Bir Kayıt**

Özet

Pleurotaceae familyasına mensup, ilgi çekici sfelloit bir tür olan *Resupinatus striatulus* (Pers.) Murrill Van ilinin Tuşba ilçesinden Türkiye mikobiyotası için yeni kayıt olarak verilmiştir.

Taksonun kısa betimlemesi makro ve mikromorfolojisine ait fotoğraflarla birlikte sunulmuştur.

Anahtar kelimeler: Yeni kayıt, *Resupinatus*, Türkiye, mikobiyota.

Introduction

The genus *Resupinatus* was validated by Gray in 1821 and is currently represented by about 50-55 species worldwide (www.indexfungorum.org; Kirk et al., 2008). Species of this genus produce small-sized, usually dark-colored, resupinate or cupulate basidiocarps on the undersides of rotting wood residues such as dead branches and decomposing logs. Among other distinguishing features include the presence of a gelatinous zone in the pileal trama, inamyloid, hyalin, smooth basidiospores, clamped hyphae and mostly absence of the metuloid cystidia (Singer, 1986; Thorn and Barron, 1986; Watling and Gregory, 1989). As a result of molecular and phylogenetic studies, the genus *Resupinatus* included in the *Pleurotaceae* family (Thorn et al., 2000; Binder et al., 2005).

According to the study carried out by Sesli et al., (2020) in Turkey, the name "Cüceyanak" in Turkish was given for the genus *Resupinatus* and when both this study and the recent studies on macrofungi in our country (Kesici and Uzun, 2021; Acar, 2021; Acar et al., 2021; Sesli, 2021; Kaplan et al., 2021; Keleş and Kaya, 2021; Çevik et al., 2021; Uzun and Kaya, 2021; Uzun, 2021; Altuntaş et al., 2021a, 2021b; Sadullahoğlu et al., 2021) are examined, it is seen that the genus *Resupinatus* is represented by 3 species (*R. applicatus*, *R. trichotis* and *R. taxi*) in Turkey (Sümer, 1982; Kaşık et al., 2003; Uzun et al., 2018). As a result of this study, this number has

reached 4 with the determination of *Resupinatus striatulus* for the first time in Turkey. Our country competing with the whole European continent in terms of plant and animal diversity, but the species of macrofungus identified so far are very low compared to Europe (Sesli et al., 2020). It is important to continue such studies in terms of determining the macrofungal diversity, which is expected to be at a much higher level in Turkey.

Materials and Method

The specimens were collected in the campus area of Van Yüzüncü Yıl University located in the town of Tuşba in the province of Van in 2020. Morphological and ecological characteristics 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. Preparations used in microscopic examinations were prepared with 5% KOH solution. Identification was performed with the aid of the relevant literature (Moser, 1983; Gonou-Zagou et al., 2011; McDonald, 2015).

The specimens turned into fungarium material are kept in the Fungarium of the Department of Biology, Van Yüzüncü Yıl University (VANF).

Results

The position in classification and valid name (www.indexfungorum.org), suggested name in Turkish, macroscopic and microscopic features, habitat-substrate information and VANF number of the species determined as the new record are presented.

Position in classification:

Basidiomycota R.T. Moore

Agaricomycetes Doweld

Agaricales Underw.

Pleurotaceae Kühner

Resupinatus Nees ex Gray

Resupinatus striatulus (Pers.) Murrill

Suggested name in Turkish: “Çizgili cüceyanak”

Macroscopic features (Fig. 1.a): Fruiting body, sessile, dome-shaped, attached dorsally or sometimes laterally, usually slightly eccentric, 3-8 mm in diameter, first dark-cream to ocher, dark brown to almost black when dry, finely pruinose when young, translucent-striate especially near the margin, margins usually wavy.

Stipe, absent.

Flesh, grayish, thin, strongly gelatinized.

Gills, same color as the cap or slightly lighter, starting radially from the attachment point, thickish, one-third continuous, the rest of various lengths, moderately narrow.

Microscopic Features: Basidia, 4-spored, 18-35 x 5-7.5 μm , slenderly clavate, with a basal clamp, basidioles are similar in shape and size to basidia. (Fig.1.b).

Spores, 4.5-6(6.5) x 3.5-5 μm , hyaline, often with one or more drops of oil, globose to sub-globose, smooth walled, inamyloid (Fig. 1.c)

Clamp connections present in all tissues.

Specimen examined: Van, Tuşba district, campus of Van Yüzüncü Yıl University, around the old mosque of university, on rotting wood residue of *Pinus* sp., 38° 14'11" N, 43° 16'58" E, 1662 m, 30.09.2020, VANF 7890.

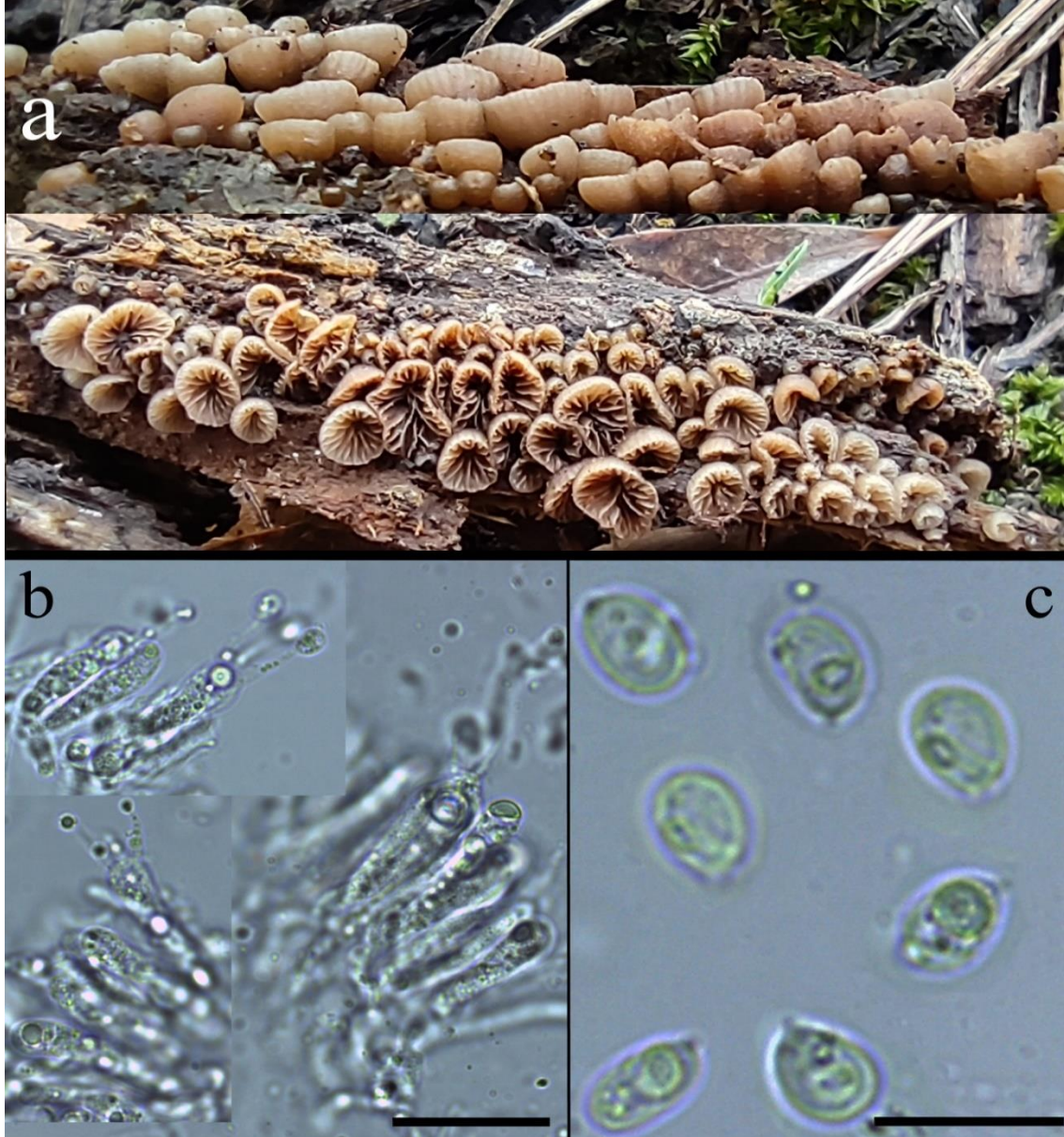


Figure 1. a. Basidiocarps, **b.** basidium and basidiols (in KOH, bar= 20 μm) **c.** basidiospores (in KOH, bar= 10 μm) of *Resupinatus striatulus*.

Discussions

Resupinatus striatulus is similar in many respects to *R. applicatus* and has often been considered a variety of this species. However, the latter species usually produces basidiocarps greater than 10 mm (even up to 20 mm) in diameter and the cap surface is tomentose. In contrast, *R. striatulus* produces basidiocarps smaller than 10 mm and the cap surface is striate and glabrous (Gonou-Zagou et al., 2011; Thorn and Barron, 1986).

Resupinatus trichotis is also similar to the *R. striatulus* in general appearance. Nevertheless, *R. trichotis* also has basidiocarps larger than 10 mm and the cap surface is covered with prominent, shaggy, blackish hairs, especially where it attaches to the substrate (Gonou-Zagou et al., 2011; Thorn and Barron, 1986; McDonald, 2015).

Contributed to mycobiota and biodiversity of Turkey by determined the *Resupinatus striatulus* for the first time in our country.

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