MACROFUNGI OF TAVAS (DENİZLİ) DISTRICT

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ABSTRACT

Macrofungi samples have been collected during the field trips carried out in Tavas (Denizli) between in 1999-2001. As a result of field and laboratory studies totally 45 taxa belong to 21 families were identified. 9 of these belong to Ascomycetes and 36 to Basidiomycetes.

Keywords: Macrofungi, Taxonomy, Tavas, Denizli

TAVAS (DENİZLİ) İLÇESİİNİN MAKROFUNGUSLARI

ÖZET


Anahtar Kelimeler: Makrofunguslar, Taksonomi, Tavas, Denizli

1. INTRODUCTION

Many studies on the macrofungi flora of Turkey have been carried out and some of them are continuing. However, The macrofungi flora of Turkey has not yet been completed.

Tavas, is a town in the province of Denizli and chosen as the investigation area (Figure 1). After a review of the relevant literature, it appears that no previous macrofungi studies have been carried out in this area. The aim of this study was to identify edible and poisonous species and contribute more data on macrofungi flora of Turkey. The climate of Tavas is generally semi-dry terrestrial and typically mediterranean-alpine climate type [1]. There are a number of trees such as Pinus brutia, P. nigra mixed
Juniperus oxycedrus, Quercus coccifera, these trees is dominant forest plants while Populus alba and Salix triandra trees are growing near streams and these suitable climate and the type of vegetation make it very favourable place for the growth of macrofungi.

2. MATERIAL AND METHOD

The materials for this study were collected on field trips carried out from Tavas district between 1999-2001. In the field, some ecological and morphological properties of specimens were noted and photographed. Then the specimens were taken to the laboratory. The spore prints were obtained and spore dimensions measured with an ocule micrometer for identification. As a result of the field and laboratory studies, all taxa were identified with the help of references; Bresinsky and Besl [2], Breitenbach and Kränzlin [3], Grunert and Grunert [4], Moser [5].

All materials have been kept at Pamukkale University, Science and Art Faculty, Laboratory of Biology Department, in Denizli.

3. RESULTS

The macrofungi taxa consisting of 45 taxa belonging to 19 families are identified. These taxa, their localities, distributions, collection dates, fungarium numbers are given below. “T”, “G”and “U” are the abbreviation of the authors in the citations of herbarium specimens.

ASCOMYCETES

MORCHELLACEAE

1. Morchella conica var. conica (Pers.) Bound.
Table village, in P. brutia forest, 29.05.2001, T,G 398.
2. Morchella elata Fr.
Seki village, near road, 29.05.2001, T,G 399.

PEZIZACEAE

4. Peziza vesiculosa Bull.
Seki village, near the road, 23.03.2001, U, T, G 254, Karahisar district, 23.03.2001 U,T,G 264.
5. Sarcoscypha coccinea (Jaq.) Sacc.
Aydoğan village, in mixed pine forest, 29.05.2001, T, G 340.
HELVELLACEAE
7. Helvella acetabulum (L.) Quél.
Pınarlar village, in pine forest, 24. 04. 2001, U 166.
8. Helvella lacunosa Afzel.
Pınarlık village, near stream, 29.05.2001, T, G 341.

DISCINACEAE
9. Gyromitra esculenta (Pers.) Fr.
Pınarlık village, in pine forest, 27. 04. 2000, U 244.

BASIDIOMYCETES

POLYPORACEAE
10. Polyporus squamosus (Huds.) Fr.
Kızılcaölük district, on poplar trees, 21.05.2001, U 186.
11. Fomes fomentarius (L.) J.J. Kickx
Yahşiler village, on pine trunks, 15.12.2000, U, 121.
12. Trametes gibbosa (Pers.) Fr.
Yahşiler village, on poplar trunks, 29.05.2001, T, G 342.

SCHIZOPHYLLACEAE
13. Schizophyllum commune Fr.
Sanabat village, on Morus alba trees, 25.05.2001, U 178.

HYMENochaetaceae
14. Phellinus torulosus (Pers.) Bourdot & Galzin
Pınarlar village, on Platanus sp. 21.01.2001, U 153.

GEASTRACEAE
15. Geastrum trilplex Jungh.

LYCOPERDACEAE
16. Lycoperdon molle Pers.
17. Lycoperdon perlatum Pers.

**RHIZOPOGONACEAE**
Kızılda forest, in mixed forest, 13.12.2000, U 78, Garıpköy, 06.03.2001, U 110, Yoran plateau, in mixed forest, 10.05.2001, U 27.

Seki village, 15.05.2001, U 122, Konak district, in mixed forest, 23.05.2001, U 332, Akyar village, in pine forest, 01.12.2000, U 175, Karataş village, in pine forest, 12.10.2000, U 150.

**GOMPHIDIACEAE**
22. *Chroogomphus rutilus* (Schaeff.) 0. K. Mill.
Pınarlık village, in pine forest, 02.06.2001, U 215, Kızılcabölük district, in pine forest, 29.05.2001, U 182.

**PLEUROTACEAE**
Aydoğdu village, on poplar trees, 07.03.2001, U 80, Sarabat village, on poplar trees, 05.12.2000, U 24.
24. *Pleurotus eryngii* (DC.) Gillet
Dede mountain, in grass, 22.05.2001, U 149.

**HYDNANGIACEAE**
25. *Laccaria laccata* (Scop.) Fr.
Pınarlar village, in pine forest, 21.05.2001, U 227.

**TRICHOLOMATACEAE**
26. *Lepista nuda* (Bull.) Cooke
27. *Clitocybe geotropa* (Bull.) Quél.
Yahşiler village, in pine forest, 23.05.2001, U 343.
29. *Tricholoma ustale* (Fr.) P. Kumm.
Derinkuyu village, in pine forest, 29.05.2001, T, G 345.
30. *Mycena strobilicola* J. Favre & Kühner  
Karahisar village, in pine forest, 05.01.2001, U 22.  
31. *Melanoleuca excissa* var. *excissa* (Fr.) Singer  
Karahisar village, in pine forest, 29.05.2001, T,G 347.  
32. *Melanoleuca graminicola* (Velen.) Kühner & Maire  
Karahisar village, in pine forest, 29.05.2001, T,G 347.  

**MARASMIACEAE**  
Derinkuyu village, in pine forest, 29.05.2001, T, G 343.  
34. *Armillaria tabescens* (Scop.) Emel  
Bahçeköy village, in pine forest, 29.05.2001, T, G 344.  

**AGARICACEAE**  
36. *Agaricus campestris* L.  
Çakıroluk district, in pine forest, 25.05.2001, U 245.  
37. *Macrolepiota procera* (Scop.) Singer  
Derinkuyu village, near the road, 10 km., 29.05.2001, U 271  

**PLUTEACEAE**  
38. *Amanita phalloides* (Vaill. ex Fr.) Link  
Avdan village, in pine forest, 25.05.2001, U 132.  

**COPRINACEAE**  
39. *Coprinus atramentarius* (Bull.) Fr.  
Derinkuyu village, near the road, 20.05.2001, U 194.  
40. *Coprinus comatus* (O. F. Müll.) Gray  
Pınarlık village, near stream, 11.02.2001, U 186, Eski hamamlar district, 08.03.2001, U 213.  
41. *Coprinus micaceus* (Bull.) Fr.  
Sarnabat village, near stream, 05.05.2001, U 136.  

**BOLBITIACEAE**  
42. *Agrocybe cylindracea* (DC.) Gillet  

**CORTINARICEAE**  
43. *Inocybe rimosa* (Bull.) P. Kumm.  
Karahisar, in pine forest, 05.01.2001, U 29.
RUSSULACEAE
44. *Lactarius deterrimus* Grőger
Akyar village, in pine forest, 22.11.2000, U 16, Pınarlık village, in pine forest, 22.11.2000, U 29.

45. *Lactarius deliciosus* (L.) Gray
Akyar village, in pine forest, 29.05.2001, T, G 350.

4. CONCLUSION AND DISCUSSION

In this study, 45 macrofungi taxa belonging to 21 families collected in Tavas Province were identified. Nine of these belong to *Ascomycetes* and 36 to *Basidiomycetes*. The distribution of the 45 species in to families is as follows: *Tricholomataceae* 7, *Lycoperdaceae* 4, *Coprinaceae* 3, *Polyporaceae* 3, *Morchellaceae* 3, *Helvellaceae* 2, *Pezizaceae* 3, *Pleurotaceae* 2, *Agaricaeae* 3, *Marasmiaceae* 2, *Rhizopogonaceae* 2, *Russulaceae* 2, *Hymenochaetaeae* 1, *Cortinariaceae* 1, *Bolbitiaceae* 1, *Gomphidiaceae* 1, *Discinaceae* 1, *Hydnangiaceae* 1, *Pluteaceae* 1, *Geastraceae* 1 and *Schizophyllaceae* 1. Fifteen percent of macrofungi we found belong to *Tricholomataceae*. Pine, mixed forests and meadows are very suitable conditions for members of *Tricholomataceae*. *Tricholomataceae, Lycoperdaceae, Morchellaceae, Coprinaceae, Pezizaceae* and *Helvellaceae* are similar to those of earlier studies carried out near our research area [6,7,8,9]. This may be because of similarities in vegetation, climate and plant flora (Table 1).

Nineteen taxa of edible macrofungi are known and *Morchella elata, M. conica var. conica, M. esculenta, H. lacunosa, Peziza vesiculosa, Laetiporus sulphureus, Polyporus squamosus, Rhizopogon roseolus, Chroogomphus rutilus, Pleurotus ostreatus, P. eryngii, Tricholoma terreum, Agaricus campestris, A. bisporus, Coprinus micaceus, C. comatus, Agrocybe cylindracea, Lactarius deliciosus and L. deterrimus* are eaten by the local people.

The poisonous taxa are four: *Amanita phalloides, Gyromitra esculenta, Inocybe rimosa* and *Tricholoma ustale*. There have been no reports of deaths from mushroom poisoning in this area, because local people collect only well-known mushrooms.

Finally, the macrofungi taxa of Tavas were added to the Turkish macrofungi flora.
Figure 1. Collection Areas
Table 1. Distribution of families.

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REFERENCES