

## Macrofungi of Değirmenboğazı (Balıkesir)

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**Abstract:** The macrofungi collected during field trips from the Değirmenboğazı picnic area between 1998 and 2001 were investigated taxonomically. As a result of these field and laboratory studies, 54 taxa belonging to 19 families were identified. These species are presented as a list. Eleven of these taxa are new records to the Turkish Macromycota.

**Key Words:** Macrofungi, Turkish Macromycota, taxonomy

### Değirmenboğazı (Balıkesir) Makrofungusları

**Özet:** Bu çalışmada, Değirmenboğazı piknik alanında 1998-2001 yılları arasında yapılan arazi çalışmalarıyla toplanan makrofunguslar taksonomik açıdan araştırılmıştır. Arazi ve laboratuvar çalışmaları sonucunda 19 familyaya ait 54 takson teşhis edilmiştir. Bu türler liste halinde sunulmuştur. Bu taksonlardan 11 tanesi Türkiye Makromikotası için yeni kayıttır.

**Anahtar Sözcükler:** Makrofunguslar, Türkiye Makromikota, taksonomi

### Introduction

Değirmenboğazı, chosen as the study area, is on the Balıkesir-Bursa highway 10 km from Balıkesir (Figure 1). *Cedrus libani* A.Rich., *Pinus brutia* Ten., *P. pinea* L., *Cupressus sempervirens* L., *Juniperus excelsa* M.Bieb., *Quercus cerris* L., *Salix alba* L., *Morus alba* L., and *Populus nigra* L. are very common in the region. This area is very good ecologically for mushrooms.

From a review of the relevant literature, it appears that no previous studies of the macromycota have been carried out in this area. However, some research has been carried out around Balıkesir (Aşkun & İşiloğlu, 1997; Yılmaz et al., 1997). The aim of this study was to determine the macromycota of the district, to identify edible and poisonous species and to add any new records to the Macromycota of the country.

### Materials and Methods

The macrofungi were collected during field trips to Değirmenboğazı between 1998 and 2001. The habitat

and morphological characteristics of the basidiomes found were recorded and photographed for diagnosis before taking them to the laboratory. Spore prints were made and the specimens dried so that they would be suitable herbarium material. Microscopic studies were carried out. As a result of the field and laboratory studies, all the taxa were identified with the help of the relevant literature (Moser, 1983; Philips, 1981; Breitenbach & Kranzlin, 1984). The specimens are now housed in the herbarium at the Department of Biology, Muğla University.

### Results

Species found in the research area are listed below. The numbers refer to the herbarium numbers and an asterisk means the taxon is new to the Turkish Macromycota.

## Ascomycetes

### Helvellaceae

#### 1. *Helvella leucopus* Pers.

North of the children's playground, 19.04.1999, FY. 796.

### Pezizaceae

\*2. *Tarzetta catinus* (Holmsk.: Fr.) Korf & J.K.Rogers

North of the children's playground, in pine forest, 9.04.1999, FY. 797.

## Basidiomycetes

### Clavulinaceae

#### 3. *Clavulina rugosa* (Fr.) Schroet.

North of 4<sup>th</sup> pathway, 3.12.1998, FY. 759.

### Corticiaceae

#### 4. *Stereum hirsutum* (Wild.: Fr.) S.F.Gray

North of 8<sup>th</sup> pathway, 23.11.1998, FY. 771.

### Polyporaceae

#### 5. *Laetiporus sulphureus* (Fr.) Murr.

Köteyli stream, on stump of *Salix* sp., 24.10.1998, FY. 235.

#### 6. *Trametes versicolor* (Fr.) Pilat

West of 5<sup>th</sup> pathway, on *Quercus* sp., 9.11.1998, FY. 703.

### Rhizopogonaceae

#### 7. *Rhizopogon luteolus* Fr.

West and east of 5<sup>th</sup> pathway, 9.11.1998, FY. 227.

### Geastraceae

#### 8. *Geastrum sessile* (Sow.) Pouz.

East of 2<sup>nd</sup> pathway, 9.11.1998, FY. 441; East of 5<sup>th</sup> pathway, 5.1.1999, FY. 1178.

### Lycoperdaceae

#### 9. *Lycoperdon perlatum* Pers.

West and east of 5<sup>th</sup> pathway, 19.10.2000, FY. 767; FY. 769.

#### 10. *Vascellum pratense* (Pers.) Kreisel

East of Balıkesir-Bursa highway, 24.10.1998, FY.235.

## Bolateceae

#### 11. *Suillus bellini* (Inz.) Watl.

West of 5<sup>th</sup> pathway, 9.11.1998, FY. 452.

#### 12. *Suillus collinitus* (Fr.) O.Kuntze

West of 5<sup>th</sup> pathway, 9.11.1998, FY. 462.

#### 13. *Xerocomus chrysenteron* (Bull.) Quéf.

East of the watch-tower, 9.11.1998, FY. 751.

## Gomphidiaceae

#### 14. *Chroogomphus rutilus* (Schff.: Fr.) O.K.Miller

East of 1<sup>st</sup> barrier, 11.11.1998, FY. 557

## Hygrophoraceae

#### 15. *Hygrophorus hypothejus* (Fr.: Fr.) Fr.

East of 2<sup>nd</sup> pathway, 2.12.1998, FY. 911.

## Tricholomataceae

#### 16. *Clitocybe alexandri* (Gill.) Konr.

North of 4th pathway, 5.1.1999, FY. 1184.

#### 17. *C. dealbata* (Sow.: Fr.) Kummer

North of 4<sup>th</sup> pathway, 2.12.1998, FY. 919; West of 8th pathway, 3.12.1998, FY. 953.

#### 18. *C. subspadicea* (Lge.) Bon & Chewassut

North of 4<sup>th</sup> pathway, 3.12.1998, FY. 958.

\*19. *Collybia butyracea* (Fr.: Fr.) Kumm. var. *asema* Fr.

North and east of 4<sup>th</sup> pathway, 9.11.1998, FY: 494; East of 3<sup>rd</sup> pathway, 11.11.1998, FY. 576.

#### \*20. *C. butyracea* (Bull.: Fr.) var. *butyracea* Fr.

East of 3<sup>rd</sup> pathway, 23.11.1998, FY. 710; East of 4<sup>th</sup> pathway, 8.1.1999, FY. 1195.

#### 21. *C. dryophila* (Bull.: Fr.) Kummer

West of 8<sup>th</sup> pathway, 23.11.2000. FY. 712.

#### 22. *Lepista inversa* (Scop.: Fr.) Pat.

North of 5<sup>th</sup> pathway, 10.11.1998, FY. 545.

#### 23. *L. sordida* (Fr.) Sing.

East of the guard hut, 12.01.2001, 1101; East of 3<sup>rd</sup> pathway, 12.01.2001, FY. 1133

#### 24. *L. nuda* (Bull.: Fr.) Cke.

East of the guard hut, 13.01.2001, FY. 1102.

25. *L. personata* (Fr.: Fr.) Cke.  
East of the guard hut, 13.01.2001, FY. 1103; 1104; 1105.
26. *Marasmius ramealis* (Bull.: Fr.) Sing.  
End of 6<sup>th</sup> pathway, 11.11.1998, FY. 804.
27. *Melanoleuca excissa* (Fr.) Sing.  
Side of 3<sup>rd</sup> pathway, 9.11.1998, FY. 512.
28. *Melanoleuca stridula* (Fr.) Sing.  
North of 1<sup>st</sup> pathway, 28.11.1998, FY. 753.
29. *Pseudoclitocybe cyathiformis* (Bull.: Fr.) Sing.  
West of 4<sup>th</sup> barrier, 9.11.1998, FY. 722.
30. *Tricholoma stans* (Fr.) Sacc.  
North of 4<sup>th</sup> pathway, 9.11.1998, FY. 507.
31. *T. terreum* (Schaeff.: Fr.) Kumm.  
South of the watch-tower, 3.12.1998, FY. 961.
- Lepiotaceae**
32. *Lepiota alba* (Bres.) Sacc.  
North of the watch-tower, 9.11.1998, FY. 529.
33. *L. clypeolaria* (Bull.: Fr.) Kummer  
South of 6<sup>th</sup> pathway, 11.11.1998, FY. 589.
- \*34. *L. cystophoroides* Joss.  
East of 3<sup>rd</sup> pathway, 12.01.2001, FY. 1137.
- \*35. *L. eriophora* Peck  
North of the watch-tower, 9.11.1998, FY. 751.
- \*36. *L. ignivolvata* Bousset-Joss.  
East of 3<sup>rd</sup> pathway, 9.11.1998, FY. 538.
- \*37. *Leucoagaricus cinerascens* Quéf.  
East of 2<sup>nd</sup> pathway, 9.11.1998, FY. 529.
- \*38. *Leucoagaricus macrorrhizus* (Locq.) Sing.  
East of 2<sup>nd</sup> pathway, 9.11.1998, FY. 470.
- Agaricaceae**
- \*39. *Agaricus altipes* (Moell.) Moell.  
West of 2<sup>nd</sup> pathway, 9.11.1998, FY. 755.
40. *A. placomyces* Peck  
East of 3<sup>rd</sup> pathway, 9.11.1998, FY. 448.
41. *A. silvicola* (Vitt.) Sacc.  
West of 2<sup>nd</sup> pathway, 11.11.98, FY. 720.
- \*42. *A. subperonatus* (Lge.) Sing.  
West of 2<sup>nd</sup> pathway, 9.11.1998, FY. 481; 2.12.1998, FY.921.
- Coprinaceae**
43. *Coprinus atramentarius* (Bull.: Fr.) Fr.  
Köteyli stream, on *Salix* sp., 27.10.1998, FY.743.
44. *C. comatus* (Müll.: Fr.) S.F.Gray  
North of 3<sup>rd</sup> barrier, 9.11.98, FY. 703.
- Bolbitiaceae**
45. *Agrocybe paludosa* (Lge.) Kühn. & Romagn.  
West of 8<sup>th</sup> pathway, 10.11.2000, FY. 760.
- Strophoriaceae**
46. *Hypholoma fasciculare* (Huds.: Fr.) Kummer  
East of the guard hut, 25.11.1998, FY. 859.
47. *Strophoria coronilla* (Bull.: Fr.) Quéf.  
East of Balıkesir-Bursa highway, 24.10.2000, FY. 772; West of 1<sup>st</sup> barrier, FY. 773.
- Cortinariaceae**
48. *Hebeloma sinapizans* (Paulet: Fr.) Gill.  
West of 8<sup>th</sup> pathway, 25.11.1999, FY. 274
49. *Inocybe fastigiata* (Schff.: Fr.) Quéf.  
Edge of the pool, 11.11.1998, FY. 762.
50. *Inocybe geophylla* (Sow.: Fr.) var. *violacea* Pat.  
East of 6<sup>th</sup> pathway, 3.12.1998, FY. 972; South of the watch-tower, 28.11.1998, FY. 873.
- Russulaceae**
51. *Lactarius deliciosus* Fr.  
West of 5<sup>th</sup> pathway, 23.11.1998, FY. 725; 28.11.1998, FY. 882.
52. *L. sanguifluus* (Paulet: Fr.) Fr.  
West of 5<sup>th</sup> pathway, 25.11.1998, FY. 865; West of 6<sup>th</sup> pathway, 24.12.1998, FY. 1063.
53. *L. semisanguifluus* Heim & Lecl.  
West of 5<sup>th</sup> pathway, 11.11.1998, FY. 597; 23.11.1998, FY. 786
- \*54. *Russula vinosa* Lindbl.  
North of 1<sup>st</sup> pathway, 23.11.1998, FY. 793

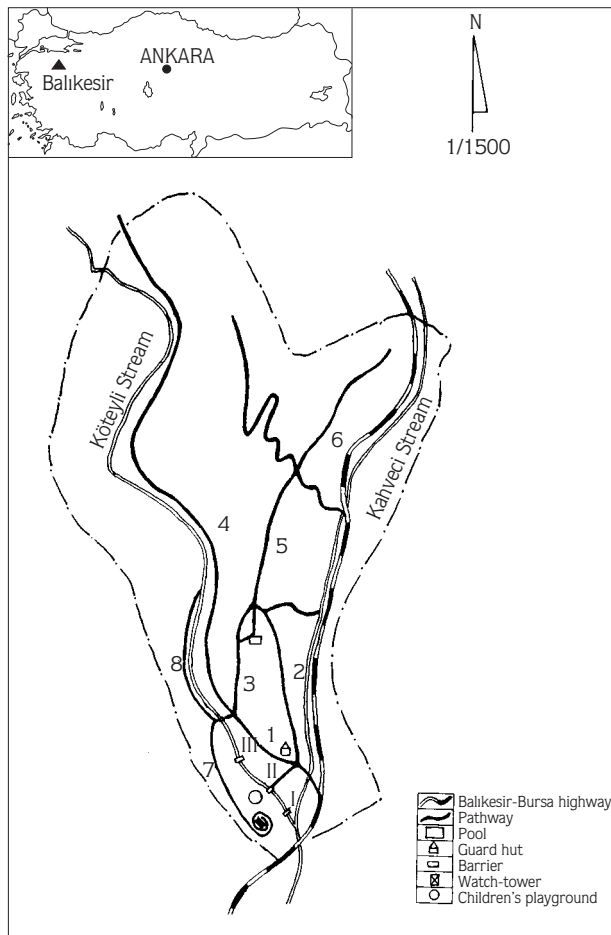


Figure 1. Map of the study area.

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## Discussion and Conclusion

In this study, 54 macrofungi were identified, 2 of which belonged to Ascomycetes and 52 to Basidiomycetes. In comparison with other studies in the area (Aşkun & Işıloğlu, 1997; Yılmaz et al., 1997), the Macromycota of Değirmenboğazı appears to be fairly similar. This is perhaps because of similarities in vegetation, climate and especially flora.

Twenty-three of the 54 macrofungus species found in the area are edible, but only *Lactarius deliciosus*, *L. sanguifluus*, *L. semisanguifluus*, *Lepista inversa* and *Agaricus subperonatus* are commonly eaten. The *Lactarius* species are sold in local markets. Six species of the taxa are poisonous and 15 species are inedible. The local people do not have enough knowledge about poisonous mushrooms.

With this study, 9 species (*Tarzetta catinus*, *Lepiota cystophoroides*, *L. eriophora*, *L. ignivolva*, *Leucoagaricus cinerascens*, *L. macrorhizus*, *Agaricus altipes*, *A. subperonatus*, and *Russula vinosa*) and 2 varieties (*Collybia butyracea* var. *asema*, *C. butyracea* var. *butyracea*) were added to the Turkish Macromycota.