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Macrofungal Diversity of Erzincan Province (Turkey)

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Abstract: The present study was carried out on macrofungi collected from Erzincan province between 2006 and 2007. The macroscopic and ecological features of macrofungi were recorded in field. The specimens were taken to laboratory. The microscopic data and the identification of macrofungi were carried out in the laboratory using related literature and mycological techniques. According to the field and laboratory investigations 191 taxa belonging to 33 families and nine orders in *Pezizomycetes* and *Agaricomycetes* classis were determined. All of the taxa are new to the province. Nine taxa are determined as new records for Turkish mycobiota. The new records are *Helvella latispora* Boud., *Conocybe pubescens* (Gillet) Kühner, *Coprinus strossmayeri* Schulz. *Coprinus vosoustii* Pilát, *Leccinum atrostitipatum* A.H. Sm. Thiers and Watl., *Entoloma polioopus* var. *parvisporigerum* Noordel., *Psathyrella friesii* Kits v Wav., *Russula dryadicola* Fellner and Landa and *Russula silvicola* Shaff.

Key words: Macrofungal diversity, taxonomy, East Anatolia, Turkey

INTRODUCTION

Erzincan is an Eastern Anatolian vilayet of Turkey and surrounded by Erzurum to the East, Tunceli to the South, Sivas to the West and Gümüşhane and Bayburt to the North (Fig. 1). The province has a surface area of

11.903 km² and covered by mountains and plateaus. The Karasu River splits the region from East to West (Anonymus, 2005).

The climate of the area is mediteranean (Akman, 1990). The average temperature is 9.2°C and the avarage annual rainfall is 466 mm (Anonymus, 2001). The area falls

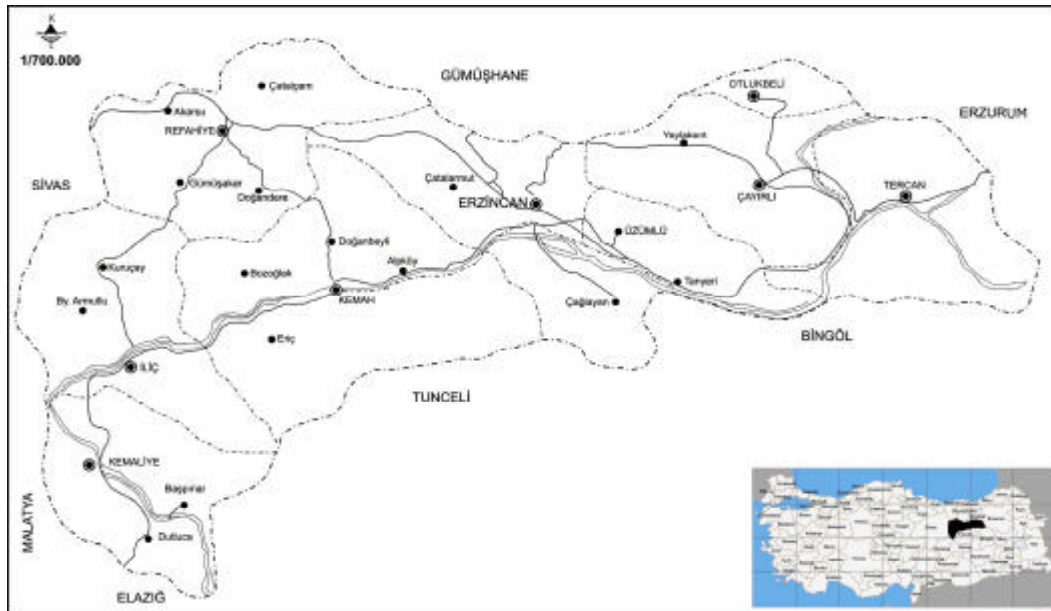


Fig. 1: Map of the research area

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in Irano-Turanian phytogeographical flora sector and takes place in A7, A8, B7 and B8 according to Davis' grid square system (Davis, 1965). Main tree populations affecting the distribution of macrofungi in the region are the members of the genera *Quercus*, *Pinus*, *Populus*, *Salix*, *Prunus* and *Malus*.

According to the recent works, Kaya (2009a, b), Uzun (2010), Uzun *et al.* (2010a) and the presented checklists (Solak *et al.*, 2007; Sesli and Denchev, 2008) almost 1929 macrofungi taxa were recorded in Turkey between 1915 and march 2010. Adding the records of Uzun *et al.* (2010b), Sesli (2010) and Akçay *et al.* (2010), Turkish macrofungi taxa is increased to 1935. Till now, there isn't any taxonomical study on macrofungi of the region.

The taxonomical studies were carried out on the surrounding provinces of study area. From Çemişgezek (Tunceli) province very close to Erzincan, 30 taxa were reported (Demirel and Nacar, 2000). Demirel *et al.* (2002) reported 45 taxa from Ağrı. Demirel *et al.* (2003) also reported 114 taxa from Erzurum province. In Bayburt 51 macrofungi taxa were identified by Uzun *et al.* (2004). In another surrounding province of Erzincan, 105 taxa were reported from Gümüşhane by Uzun *et al.* (2006). Uzun *et al.* (2007) also reported 60 taxa from Bingöl province. New records to Turkish mycobiota were contributed by the cited studies completed in the bordering province of study area.

The aim of the present study was determine the macrofungal diversity of the Erzincan province and to make contribution to the macromycota of Turkey.

MATERIALS AND METHODS

The material of this study was collected from 98 localities (Table 1) in Erzincan province between 2006 and 2007. Macroscopic characteristics, ecologic parameters and the local ethnofungal knowledge of the specimens were recorded and photographs were taken at field. Carrying the macrofungi samples to the fungarium, spore prints were obtained and they were dried in an air conditioned room and put in polyethylene bags as fungarium material. Determination and measurement of microscopic features were performed according to mycological techniques, in the fungarium of Yüzüncü Yıl University. Specimens were identified using Phillips (1981), Moser (1983), Breitenbach and Kränzlin (1984), Buczacki (1989), Ellis and Ellis (1990), Bresinsky and Besl (1990), Jordan (1995), Kibby (1997), Dähncke (2004) and Kränzlin (2005).

The samples are deposited at the Fungarium of Yüzüncü Yıl University, Science and Art Faculty Van, Turkey.

Table 1: Macrofungi collecting localities

No.	Localities	Altitudes
Erzincan centre		
1.	The vicinity of the sugar factory	1189
2.	Çatalamut-Bahçeli fork in a road near	1307
3.	Çayırly ridgeway 50. km	2963
4.	Deđirmenli village	1180
5.	From Yalınca to Karataş village 2 km	1187
6.	Çağlayan town	1247
7.	İzzetpaşa quarter	1184
8.	The vicinity of Çahören village	1165
9.	Atatürk Kent Forest	2270
10.	Mecidiye village forest	2270
11.	Molla village	1179
12.	Opposite side of Sakaltutan provincial highway maintenance construction site	2149
13.	Cemal Gürsel quarter	1218
14.	Uluköy town	1164
15.	Ahmetli village	2076
16.	Yalıca village	1187
17.	Yamaçlı village	1244
18.	The vicinity of Ekşi Su	1149
19.	Sivas highway 4 km	1242
20.	Terzi Baba Cemetery	1208
Çayırli		
21.	Centre	1526
22.	Çaykent village	1461
23.	Saygınlar village	1484
24.	Harmantepe village	1480
25.	Bahklı village	1585
26.	Bozağa village	1472
İliç		
27.	Kayacak village	8651
28.	From İliç to Kemah 5 km	908
29.	Bağıştaş village	887
30.	Özlü village	1530
31.	Kuruçay village	1130
32.	Kuzkışla village	1331
33.	Güngören village	1045
34.	Çiftlik village	1023
35.	Çoban village	1175
36.	Kızılkışla village fork in a road near	
Kemah		
37.	Centre	1070
38.	Ayrıncınar village fork in a road near	1057
39.	Dutlu village	1143
40.	Soğuk Sular location	1227
41.	The garden of old boarding School	1082
42.	Alp village	1129
43.	Çiğdemli village fork in a road near	1249
44.	Maksutpaşı village-	1103
Kemaliye		
45.	Apçağa village	1128
46.	Kozlupınar village	1232
47.	Yuva village-	913
48.	Erzincan highway 5 km	967
49.	Yeşilyurt village	1251
50.	Toybelen village	1220
51.	Güldibi village	1191
52.	Dutluca village	1155
53.	Başpınar village	1187
54.	Sandık village	1207
55.	Salihli village	1340
56.	Arapkir highway 2 km	1156
57.	The vicinity of Kemaliye governor residence	886
58.	The vicinity of Tunnel exit to Erzincan	881
59.	Esertepe village	1035

Table 1: Continued

No.	Localities	Altitudes
Otlukbeli		
60	Centre	1762
61	Yeni village	1735
Refahiye		
62	Centre	1590
63	Çavuşköy village	1459
64	Doğankent forest	1827
65	Gümüşakar village	1891
66	Göçevi village	1560
67	Alt köy village	1502
68	Kersen village	1576
69	Ortagöze village	1458
70	From Yazıkediği village to Kemah highway 1 km	1540
71	Laleli village	1725
72	Şahverdi village	1749
73	Dumanlı forest	2045
74	The vicinity Aömusa village	1517
75	Kanlıtaş village	1590
76	From Refahiye to Kemah highway, 7 km	1602
77	Aşarözü village	1695
Tercan		
78	Altunkent town	1380
79	The vicinity of Station area traffic	1414
80	Karşıyaka quarter	1413
81	The garden of Hydroelectric power plant	1435
82	Atatürk quarter	1430
83	The opposite side of Mehmetcik grove	1445
84	The vicinity of Gökdere village	1893
85	Gökçe village	1412
86	Yaylacık village	1571
87	From Yollarüstü village to Erzincan highway 3 km	1374
88	Müftüoğlu village	1537
89	Gözeler quarter	1420
90	The area of Shoe factory	1440
91	Mercan town	1395
92	Çatırkaya town	1480
93	Hacı Bayram village	1745
Üzümlü		
94	Centre	1450
95	Avcılar village	1200
96	Karakaya town fork in a road near	1176
97	The vicinity of Sansa provincial highway maintenance	1333
98	Bayırbağ town	1340

RESULTS

As a result, 191 macrofungi taxa were identified from the study area. The systematic of the taxa are in accordance with Cannon and Kirk (2007), Kirk *et al.* (2008) and Index fungorum (<http://www.speciesfungorum.org/>; accessed 27 September 2009) and they are listed in alphabetical order. For each taxa, habitat, locality, collection date and accession numbers (A.K.: Ali Keleş) are given. New records are indicated with an asterisk (*).

Peizomyces

Peizales

Helvellaceae Fr.

1. *Helvella acetabulum* (L.) Quéf.

Under *Populus* sp., [30], 08.05.2006, A.K. 221; [6], 11.05.2006, A.K. 437; under *Quercus* sp. forest, [50],

09.05.2006, A.K. 286; under *Salix* sp., [38], 10.05.2006, A.K. 383; [4], 11.05.2006, A.K. 427;

2. *Helvella lacunosa* Afzel

Under *Quercus* sp. forest, [49], 09.05.2006, A.K. 247; [50], 09.05.2006, A.K. 297; under *Populus* sp., [43], 10.05.2006, A.K. 363; [6], 11.05.2006, A.K. 433; under *Salix* sp., [4], 11.05.2006, A.K. 420; under *Pinus* sp., [10], 13.07.2006, A.K. 581.

3. **Helvella latispora* Boud.

Under *Populus* sp., [50], 09.05.2006, A.K. 276.

4. *Helvella leucopus* Pers.

Under *Populus* sp., [16], 15.04.2006, A.K. 37; road side, [50], 09.05.2006, A.K. 267; [51], 10.05.2006, A.K. 341; [6], 11.05.2006, A.K. 433; [41], 10.05.2006, A.K. 370; cemetery near, [16], (11.05.2006) A.K. 429; [9], (06.06.2006) A.K. 524.; [38], 10.05.2006, A.K. 377; [7], 11.05.2006, A.K. 394; under *Crataegus* sp., [8], 11.05.2006, A.K. 410; under *Salix* sp., [4], 11.05.2006, A.K. 421;

5. *Helvella queletii* Bres.

Under mixed forest, [64], 06.06.2006, A.K. 539.

Morchellaceae Rchb.

6. *Mitrophora semilibera* (DC.) Lév.

Under *Populus* sp., [40], 17.04.2006, A.K. 103; [67], 07.05.2006, A.K. 193; under *Pyrus* sp., [75], 07.05.2006, A.K. 144; under *Salix* sp., [62], 08.05.2006, A.K. 206.

7. *Morchella conica* Krombh.

Under *Populus* sp., [30], 08.05.2006, A.K. 223.

8. *Morchella esculenta* (L.) Pers.

Among grass, [95], 14.04.2006, A.K. 22; under *Prunus* sp., [2], 15.04.2006, A.K. 54.

9. *Morchella esculenta* var. *umbrina* (Boud.) S. Imai

Under *Malus* sp., road side, [95], 14.04.2006, A.K. 21; [37], 17.04.2006, A.K. 86; in *Pinus* sp. nurseries near, field side, [94], 17.04.2006, A.K. 120.

10. *Morchella rigida* (Krombh.) Boud.

In meadowland, [27], 28.04.2007, A.K. 1082.

11. *Morchella vulgaris* (Pers.) Boud.

Under *Populus* sp., [16], 15.04.2006, A.K. 42.

12. *Verpa bohemica* (Krombh.) J. Schröt.

Under tree, [4], 15.04.2006, A.K. 33; under *Populus* sp., [68], 16.04.2006, A.K. 59; road side, [70], 16.04.2006, A.K. 61; [71], 16.04.2006, A.K. 69; [40], 17.04.2006, A.K. 101; [74], 16.04.2006, A.K. 139; under *Salix* sp., [42], 17.04.2006, A.K. 119; under tree, [5], 15.04.2006, A.K. 132; under *Prunus* sp., [75], 07.05.2006, A.K. 146.

Pyronemataceae Corda

13. *Flavoscypha cantharella* (Fr.) Harmaja

Under mixed forest, [64], 11.11.2006, A.K. 850.

Agaricomycetes

Agaricales

Agaricaceae Chevall.

14. *Agaricus bisporus* (J.E. Lange) Imbach
In meadowland, in mixed forest side, [96], 12.10.2006, A.K. 719; [37], 17.04.2006, A.K. 97; in mixed forest side, [64], 15.07.2006, A.K. 601.
15. *Agaricus langei* (F.H. Møller and Jul. Schäff.) Maire
Under *Pinus sylvestris*, [64], 13.10.2006, A.K. 739
16. *Agaricus lanipes* (F.H. Møll. & Jul. Schäeff.) Sing.
In *Quercus* sp. forest side, [59], 12.11.2006, A.K. 951.
17. *Agaricus urinascens* var. *urinascens* (Jul. Schäff. and F.H. Møller) Singer
In meadowland, [12], 16.06.2007, A.K. 1115.
18. *Agaricus xanthodermus* Genev.
In meadowland, [75], 07.05.2006, A.K. 151.
19. *Bovista plumbea* Pers.
In meadowland, mixed forest side, [64], 15.07.2006, A.K. 623; [9], 04.09.2006, A.K. 636; 11.11.2006, A.K. 828
20. *Coprinus comatus* (O.F. Müell.) Pers.
Under *Populus* sp., [28], 10.05.2006, A.K. 355; [7], 11.05.2006, A.K. 399; [11], 11.05.2006, A.K. 414; [31], 08.05.2006, A.K. 458; in meadowland, [26], 11.10.2006, A.K. 689; [23], 12.10.2006, A.K. 716; [18], 27.10.2007, A.K. 1250; [79], 28.10.2007, A.K. 1275; water ditch side, [14], 12.10.2006, A.K. 731; [71], 13.10.2006, A.K. 764; [37], 14.10.2006, A.K. 766; 26.10.2007, A.K. 1241; in mixed forest, [35], 12.11.2006, A.K. 898; [64], 11.09.2007, A.K. 1202.
21. **Coprinus strossmayeri* Schulz.
Under *Populus* sp., [17], 15.05.2006, A.K. 439.
22. **Coprinus vosoustii* Pilát
In step, [36], 08.05.2006, A.K. 217.
23. *Lepiota clypeolaria* (Bull.) P. Kumm.
Under *Pinus sylvestris*, [64], 15.07.2006, A.K. 608.
24. *Lepiota cristata* (Bolt.) P. Kumm.
Under *Populus* sp., [10], 13.07.2006, A.K. 576; 16.06.2007, A.K. 1171; in meadowland, [1], 26.10.2007, A.K. 1217.
25. *Leucoagaricus leucothites* (Vitt.) Wasser
In meadowland, [7], 15.10.2006, A.K. 785; [64], 13.10.2006, A.K. 742; [79], 11.10.2006, A.K. 559; [20], 25.10.2007, A.K. 1214; [79], 11.10.2006, A.K. 559; [20], 25.10.2007, A.K. 1214; in road side, [24], 11.10.2006, A.K. 681.
26. *Lycoperdon excipuliforme* (Scop.) Pers.
Under *Populus* sp., [64], 11.11.2006, A.K. 864.
27. *Lycoperdon utriforme* Bull.
In meadowland, [96], 11.11.2006, A.K. 826; [15], 15.06.2007, A.K. 1098.
28. *Lycoperdon mammaeforme* Pers.
In mixed forest, [64], 15.07.2006, A.K. 614.
29. *Lycoperdon molle* Pers.
In mixed forest, [10], 05.06.2006, A.K. 510; in meadowland, [64], 04.06.2006, A.K. 641; 14.09.2007, A.K. 1199.
30. *Lycoperdon perlatum* Pers.
In mixed forest, [10], 13.07.2006, A.K. 568; in meadowland, mixed forest near, [64], 04.06.2006, A.K. 641; 11.11.2006, A.K. 855; 16.06.2007, A.K. 1147.
31. *Lycoperdon pratense* Pers.
In meadowland, forest side, [64], 13.10.2006, A.K. 74.
32. *Macrolepiota excoriata* (Schaeff.) Wasser
In meadowland, [64], 13.10.2006, A.K. 738.
33. *Macrolepiota procera* var. *procera* (Scop.) Singer
Under *Pinus sylvestris*, mixed forest, [64], 11.11.2006, A.K. 873.
34. *Tulostoma brumale* Pers.
Step, [70], 16.04.2006, A.K. 60; [50], 08.05.2006, A.K. 475; in meadowland, [41], 17.04.2006, A.K. 95; under *Pinus sylvestris*, [94], 17.04.2006, A.K. 118.

Amanitaceae R. Heim ex Pouz.

35. *Amanita argentea* Huijsman
Under *Populus* sp., [64], 15.07.2006, A.K. 618.
36. *Amanita nivalis* Grev.
In *Quercus* sp. forest, [49], 09.05.2006, A.K. 255.
37. *Amanita submembranacea* (Bon) Gröger.
Under *Quercus* sp., [64], 15.07.2006, A.K. 604.
38. *Amanita vaginata* (Bull.) Lam.
Under *Populus* sp., [64], 15.07.2006, A.K. 620.

Bolbitiaceae Singer and A.H. Sm.

39. *Bolbitius titubans* var. *olivaceus* (Gillet) Arnolds
Under mixed forest, [64], 16.06.2007, A.K. 1133.
40. *Bolbitius titubans* var. *titubans* (Bull.) Fr.
Under *Populus* sp., [76], 06.06.2006, A.K. 552.
41. *Bolbitius vitellinus* var. *vitellinus* (Pers.) Fr.
On plant remains, [2], 15.04.2006, A.K. 53; under *Populus* sp., [72], 16.07.2006, A.K. 633.
42. *Conocybe apala* (Fr.) Arnolds
In meadowland, [16], 15.04.2006, A.K. 39; on cattle dung, [39], 16.04.2006, A.K. 72.
43. *Conocybe fuscimarginata* (Murr) Sing.
In meadowland, [37], 17.04.2006, A.K. 85.
44. **Conocybe pubescens* (Gillet) Kühner
Under *Morus* sp., in garden, [55], 12.11.2006, A.K. 946.
45. *Conocybe semiglobata* Kühn. & Watl.
Under *Quercus* sp., [29], 10.05.2006, A.K. 346.
46. *Conocybe siennophylla* (Berk. & Broome) Singer
Under *Salix* sp., [63], 07.05.2006, A.K. 165.

47. *Conocybe subovalis* Kühn. & Watl.
In meadowland, [40], 17.04.2006, A.K. 105.
48. *Conocybe tenera* (Schäeff.) Fay.
Under *Populus* sp., [38], 16.04.2006, A.K. 78.

Cortinariaceae R. Heim ex Pouz.

49. *Cortinarius trivialis* J.E. Lange
Under *Populus* sp., in mixed forest, [64], 16.06.2007,
A.K. 1157.

Entolomataceae Kottl. and Pouz.

50. *Entoloma clypeatum* f. *clypeatum* (L.) P. Kumm.
In rosehip thicket near, [80], 14.04.2006, A.K. 8.
51. **Entoloma polioopus* var. *parvisporigerum* Noordel.
Under *Populus* sp., [30], 08.05.2006, A.K. 224.
52. *Entoloma saepium* (Noulet & Dass.) Richon & Roze
In meadowland, [27], 10.05.2006, A.K. 352.
53. *Entoloma undatum* (Fr.) M.M. Moser
Under *Quercus* sp., [48], 10.05.2006, A.K. 330.

Hygrophoraceae Lotsy

54. *Hygrocybe conica* (Scop.) P. Kumm.
Under *Platanus* sp., [56], 09.05.2006, A.K. 314.

Inocybaceae Jülich

55. *Inocybe dulcamara* (Alb. and Schw.) P. Kumm.
Under *Populus* sp., [30], 08.05.2006, A.K. 220; under
Populus sp., [38], 10.05.2006, A.K. 378.
56. *Inocybe maculata* Boud.
Under *Pinus sylvestris*, [9], 11.11.2006, A.K. 843.
57. *Inocybe rimosa* f. *rimosa* (Bull.) P. Kumm.
Under *Populus* sp., [79], 18.06.2007, A.K. 1188.
58. *Inocybe splendens* var. *phaeoleuca* (Kühn.) Kuyper
In mixed forest, [90], 11.11.2006, A.K. 806.

Lyophyllaceae Jülich

59. *Calocybe gambosa* (Fr.) Donk
Under *Populus* sp., [64], 15.07.2006, A.K. 619.
60. *Lyophyllum connatum* (Schum.) Sing.
Under *Pinus sylvestris*, [62], 07.05.2006, A.K. 195.

Marasmiaceae Roze ex Kühner

61. *Gymnopus dryophilus* (Bull.) Murrill
Under *Platanus* sp., [56], 09.05.2006, A.K. 315; under
Quercus sp., [48], 10.05.2006, A.K. 332; under *Pinus*
syvestris, under *Populus* sp., [58], 11.11.2006, A.K. 846;
16.06.2007, A.K. 1119.
62. *Gymnopus erythropus* (Pers.) Antonin, Halling and
Noordel.
Under *Populus* sp., [64], 15.07.2006, A.K. 622.
63. *Gymnopus hariolorum* (Bull.) Antonin, Halling and
Noordel

In mixed forest, [64], 16.06.2007, A.K. 1140.

64. *Rhodocollybia maculata* var. *maculata* (Alb. And
Schwein.) Singer
Under *Populus* sp., [64], 15.07.2006, A.K. 619.
65. *Rhodocollybia proluxa* var. *distorta* (Fr.) Antonin,
Halling and Noordel.
Under mixed trees, on branch of tree near, [57],
09.05.2006, A.K. 327.

Mycenaceae Roze

66. *Mycena galericulata* (Scop.) Gray
On tree stump, road side, [95], 14.04.2006, A.K. 24.
67. *Mycena leptcephala* (Pers.) Gill.
In mixed forest, [32], 11.11.2006, A.K. 848.
68. *Mycena olida* Bres.
On *Populus* sp. stump, [34], 12.11.2006, A.K. 940.
69. *Mycena polygramma* (Bull.) Gray
Under *Quercus* sp., [64], 11.11.2006, A.K. 859;
16.06.2007, A.K. 1143.
70. *Mycena stylobates* (Pers.) P. Kumm.
On branch of *Populus* sp., [36], 12.11.2006, A.K. 885.

Physalacriaceae Corner

71. *Armillaria cepistipes* Velen.
Under *Acacia* sp., on stump, [96], 11.11.2006, A.K.
818; on *Populus* sp. stump, [33], 12.11.2006, A.K. 927.
72. *Armillaria mellea* (Vahl) P. Kumm.
On *Prunus* sp. stump, [7], 29.10.2006, A.K. 796; under
fruit trees, on stump, [31], 12.11.2006, A.K. 908; [88],
13.11.2006, A.K. 1069; on *Malus* sp. stump, [34],
12.11.2006, A.K. 935; on stump, [37], 26.10.2007, A.K.
1236; under *Acacia* sp., on stump, [96], 27.10.2007, A.K.
1256.
73. *Armillaria ostoyae* (Romagn.) Herink
Around stump, road side, [96], 11.11.2006, A.K. 718.

Pleurotaceae Kühner

74. *Lentinus tigrinus* (Bull.) Fr.
On *Salix* sp. stump, [80], 14.04.2006, A.K. 7; [42],
10.05.2006, A.K. 391; [82], 05.06.2006, A.K. 489; on
Populus sp., [13], 13.10.2006, A.K. 782; on *Populus* sp.
stump, [52], 13.11.2006, A.K. 990; [27], 28.04.2007, A.K.
1080; on *Pinus sylvestris* stump, [53], 13.11.2006, A.K. 994;
on tree stump, [47], 28.04.2007, A.K. 1089.
75. *Pleurotus dryinus* (Pers.) P. Kumm.
On *Populus* sp. stump, [83], 11.10.2006, A.K. 667.
76. *Pleurotus eryngii* (DC.) Quél.
Step, on branch of *Prangos* sp., [16], 15.04.2006, A.K.
35; [54], 11.05.2006, A.K. 974.
77. *Pleurotus fuscus* var. *ferulae* Lanzi

In *Pinus sylvestris* nurseries, in meadowland, [94], 17.04.2006, A.K. 114.

Pleurotus ostreatus (Jacq.) P. Kumm.

78. On *Populus* sp. stump, brook side, [84], 13.04.2006, A.K. 1; [87], 14.04.2006, A.K. 16; [71], 16.04.2006, A.K. 134; [26], 11.10.2006, A.K. 1686; [61], 11.10.2006, A.K. 694; [15], 11.09.2007, A.K. 1205; [18], 25.10.2007, A.K. 1207; [19], 26.10.2007, A.K. 1223; in mixed forest, [64], 26.10.2007, A.K. 1224; [37], 26.10.2007, A.K. 1235; [18], 27.10.2007, A.K. 1251; [24], 11.10.2006, A.K. 678; [83], 11.10.2006, A.K. 660; on tree stump, [82], 13.04.2006, A.K. 3; [89], 05.06.2006, A.K. 498; on *Salix* sp. stump, [88], 17.04.2006, A.K. 115; [80], 28.10.2007, A.K. 1277; [14], 12.10.2006, A.K. 729; [60], 11.10.2006, A.K. 698; [21], 12.10.2006, A.K. 704; [25], 05.06.2006, A.K. 502; [40], 17.04.2006, A.K. 117; [6], 15.04.2006, A.K. 141; on *Prunus* sp. stump, [75], 107.05.2006, A.K. 159; on branch of *Salix* sp., [23], 12.10.2006, A.K. 715; on tree stump, [31], 12.11.2006, A.K. 912; on *Pinus sylvestris*, [81], 27.10.2007, A.K. 1284.

79. *Pleurotus populinus* O. Hilber and O.K. Mill.

On *Populus* sp., stump, [7], 11.05.06, A.K. 457; [27], 28.04.2007, A.K. 1081; [15], 15.06.2007, A.K. 1097; [24], 27.10.2007, A.K. 1269; on *Populus* sp., [80], 11.11.2006, A.K. 811.

Pluteaceae Kotl. and Pouz.

80. *Pluteus nanus* (Pers.) P. Kumm.

Under *Crataegus* sp., [8], 11.05.2006, A.K. 408.

81. *Pluteus romellii* (Britzelm.) Lapl.

Under *Acacia* sp., [42], 17.04.2006, A.K. 107.

82. *Pluteus umbrosus* (Pers.) P. Kumm.

Around *Populus* sp. stump, [7], 15.10.2006, A.K. 787.

83. *Volvariella bombycina* (Schäeff.) Sing.

Under *Populus* sp., [92], 11.10.2006, A.K. 677; on *Salix* sp. stump, [17], 12.10.2006, A.K. 732; [6], 11.10.2006, A.K. 790; on *Populus* sp. stump, [38], 14.10.2007, A.K. 771; on *Populus* sp., [33], 12.10.2006, A.K. 929; on tree stump, [1], 26.10.2006, A.K. 1222.

84. *Volvariella gloiocephala* (DC.) Boekhout & Enderle

In meadowland, [46], 09.05.2006, A.K. 271; [16], 11.05.2006, A.K. 430; under *Quercus* sp., [59], 12.11.2006, A.K. 948.

85. *Volvariella murinella* (Qué.) M.M. Mos.

Under *Populus* sp., [30], 08.05.2006, A.K. 229.

Psathyrellaceae Vilgalys, Moncalvo and Redhead

86. *Coprinopsis atramentaria* (Bull.) Redhead, Vilgalys and Moncalvo

Around *Populus* sp. stump, [41], 17.04.2006, A.K. 92; around *Salix* sp., [69], 07.05.2006, A.K. 175; water side, [40], 10.05.2006, A.K. 380, under *Populus* sp., [83],

11.10.2006, A.K. 668; under *Prunus* sp., [75], 13.10.2006, A.K. 745; under *Populus* sp., [80], 27.10.2006, A.K. 1281.
87. *Coprinellus disseminatus* (Pers.) J.E. Lange

Around *Salix* sp. stump, [80], 14.04.2006, A.K. 10; around *Populus* sp. stump, [16], 15.04.2006, A.K. 41; [35], 12.11.2006, A.K. 902; [30], 08.05.2006, A.K. 225; [71], 16.04.2006, A.K. 130; [40], 17.04.2006, A.K. 128; around *Acacia* sp. stump, [42], 17.04.2006, A.K. 108; under *Salix* sp., [75], 07.05.2006, A.K. 163; on *Salix* sp. stump, [69], 07.05.2006, A.K. 179; [14], 12.10.2006, A.K. 730; under *Crataegus* sp., [8], 11.05.2006, A.K. 407; around *Pinus sylvestris* stump, [9], 06.06.2006, A.K. 521; around *Juglans* sp. stump 14.07.2006, A.K. 583; under *Populus* sp., [19], 14.07.2006, A.K. 588; [77], 13.10.2006, A.K. 760; on tree stump, [34], 12.11.2006, A.K. 939; around *Corylus* sp., 12.11.2006, A.K. 944; around *Populus* sp. stump, [37], 14.11.2006, A.K. 1038; on tree stump, [1], 15.06.2006, A.K. 1103; 27.10.2007, A.K. 1244; around *Salix* sp., stump, [79], 18.06.2006, A.K. 1187.

88. *Coprinellus domesticus* (Bolton) Vilgalys, Hopple & Jacq. Johnson

Under *Acacia* sp., [96], 14.04.2006, A.K. 18; on *Populus* sp., stump [45], 28.04.2006, A.K. 1092; around *Salix* sp., [87], 27.10.2006, A.K. 1258.

89. *Coprinellus impatiens* (Fr.) J.E. Lange

In *Populus* sp., stump hollow [34], (12.11.2006) A.K. 934.

90. *Coprinellus micaceus* (Bull.) Vilgalys, Hopple & Jacq. Johnson

Around *Salix* sp., stump, [80], 14.04.2006, A.K. 9; around *Populus* sp. stump, [87], 14.04.2006, A.K. 17; in meadowland, [95], 14.04.2006, A.K. 23; around *Populus* sp. stump [16], 15.04.2006, A.K. 44; around *Populus* sp., [38], 16.04.2006, A.K. 76; on *Populus* sp. stump, [37], 17.04.2006, A.K. 83; around *Salix* sp. stump, [75], 05.07.2006, A.K. 158; around *Salix* sp. stump [67], 07.05.2006, A.K. 188; in *Populus* sp. stump environment, [31], 08.05.2006, A.K. 238; under *Populus* sp., [51], 10.05.2006, A.K. 338; under *Pinus sylvestris*, [41], 10.05.2006, A.K. 368; on *Populus* sp. stump, [11], 11.05.2006, A.K. 413; [78], around *Salix* sp., 11.05.2006, A.K. 448; around *Salix* sp., [80], 11.05.2006, A.K. 454; around *Populus* sp. stump [6], 11.05.2006, A.K. 465; on *Populus* sp. stump, [90], 05.06.2006, A.K. 487; around *Populus* sp. stump [26], 11.10.2006, A.K. 691; under *Populus* sp., [25], 11.10.2006, A.K. 699; in meadowland, [47], 14.11.2006, A.K. 1010; under *Morus* sp., [27], 28.04.2007, A.K. 1078; around tree stump, [1], 27.10.2006, A.K. 1244.

91. *Coprinopsis echinospora* (Bull.) Redhead, Vilgalys and Moncalvo

Under mixed trees, [81], 27.10.2007, A.K. 1285.

93. *Coprinopsis nivea* (Pers.) Redhead, Vilgalys and Moncalvo

On cattle dung, [55], 10.05.2006, A.K. 343; [41], 10.05.2006, A.K. 374; [90], 11.10.2006, A.K. 648; [3], 05.06.2006, A.K. 504; [26], 11.10.2006, A.K. 687; [10], 17.06.2007, A.K. 1165; 13.07.2006, A.K. 576.

94. *Coprinopsis picacea* (Bull.) Redhead, Vilgalys and Moncalvo

Under *Quercus* sp., [32], 12.11.2006, A.K. 895.

95. *Coprinopsis stangliana* (Enderle, Bender and Gröger) Redhead, Vilgalys & Moncalvo

Under *Populus* sp., [30], 08.05.2006, A.K. 228.

96. *Panaeolus papilionaceus* var. *papilionaceus* (Bull.) Quél.

On cattle dung, [45], 09.05.2006, A.K. 304.

Parasola plicatilis (Curtis) Redhead, Vilgalys and Hopple
Around *Acacia* sp., [96], 16.04.2006, A.K. 79; 12.10.2006, A.K. 722.

97. *Psathyrella candolleana* (Fr.) Mre.

Under *Populus* sp., [41], 17.04.2006, A.K. 26; under *Prunus* sp., [96], 17.04.2006, A.K. 30; under *Populus* sp., [71], 16.04.2006, A.K. 68; [64], under *Populus* sp., [64], 06.06.2006, A.K. 542; 16.06.2007, A.K. 1156; under *Populus* sp., [10], 13.07.2006, A.K. 572; under *Acacia* sp., road side, [96], 18.06.2007, A.K. 1186.

98. *Psathyrella cotonea* (Quél.) Konr. and Maubl.

Under *Salix* sp., [38], 10.05.2006, A.K. 385

99. **Psathyrella friesii* Kits v Wav.

Under *Populus* sp., [92], 14.04.2006, A.K. 15.

100. *Psathyrella leucotephra* (Berk. and Br.) P. D. Ort.

In meadowland, [69], 07.05.2006, A.K. 181.

101. *Psathyrella marcescibilis* (Britz.) Sing.

In meadowland, [83], 13.04.2006, A.K. 2; around *Populus* sp. stump, [85], 11.10.2006, A.K. 671.

102. *Psathyrella multipedata* (Peck) A.H. Sm.

Under Cherry trees, forest side, [64], 15.07.2006, A.K. 595.

103. *Psathyrella pseudogracilis* (Romagn.) M.M. Moser

Under *Populus* sp., [77], 13.10.2006, A.K. 761.

104. *Psathyrella tephrophylla* (Romagn.) M.M. Moser

Under *Populus* sp., [68], 16.04.2006, A.K. 58; [96], 12.10.2006, A.K. 720.

Schizophyllaceae Quél.

105. *Schizophyllum commune* Fr.

On *Juglan* sp. stump, [2], 15.04.2006, A.K. 52; on *Morus* sp., [56], 09.05.2006, A.K. 306; on tree, [57], 10.05.2006, A.K. 461; on *Salix* sp., [95], 12.10.2006, A.K. 726; on tree stump, [39], 13.11.2006, A.K. 1048; [47], 28.04.2007, A.K. 1084; [1], 15.06.2007, A.K. 1107.

Strophariaceae Sing. and A.H. Sm.

106. *Agrocybe cylindracea* (DC.) Maire

On *Salix* sp. stump, [71], 16.04.2006, A.K. 70; on *Populus* sp. stump, [76], 16.04.2006, A.K. 74; [38], 17.04.2006, A.K. 81; 14.10.2006, A.K. 774; [47], 14.11.2006, A.K. 1018; [1], 26.10.2007, A.K. 1219.

107. *Agrocybe dura* (Bolt.) Sing.

In mixed forest side, [64], 16.06.2007, A.K. 1132.

108. *Agrocybe praecox* (Pers.) Fay.

Under *Populus* sp., [32], 08.05.2006 A.K. 212; in mixed forest, [46], 09.05.2006 A.K. 264; in *Quercus* sp. forest, [32], 09.05.2006, A.K. 296; on soil, road side, [57], 09.05.2006, A.K. 320; under shrubbery, [10], 13.07.2006, A.K. 575; in mixed forest, [64], 16.06.2007, A.K. 1136.

109. *Agrocybe splendida* Clç.

Under mixed nurseries, [9], 06.06.2006, A.K. 525.

110. *Hebeloma mesophaeum* (Pers.) Quél.

In conifer forest, [10], 17.06.2007, A.K. 1178.

111. *Hebeloma laterinum* (Batsch) Vesterh.

Under *Pinus sylvestris*, [64], 05.06.2006, A.K. 529.

112. *Hebeloma sordescens* Vesterh.

Under *Salix* sp., [92], 11.10.2006, A.K. 672.

113. *Hypholoma fasciculare* var. *fasciculare* (Huds.) P. Kumm.

Under *Quercus* sp., [64], 06.06.2006, A.K. 544; on *Populus* sp. stump, 15.07.2006, A.K. 600; 16.06.2007, A.K. 1138.

114. *Pholiota aurivella* (Batsch) P. Kumm.

On *Salix* sp., [92], 11.10.2006, A.K. 674; [60], 11.10.2006 A.K. 697; [23], 12.10.2006, A.K. 711; [14], 12.10.2006 A.K. 727; on *Malus* sp., [6], 12.10.2006, A.K. 735; on *Salix* sp., [13], 15.10.2006 A.K. 784; [22], 15.10.2006, A.K. 789; [96], 11.11.2006 A.K. 824; [65], 12.11.2006, A.K. 880; in mixed forest, [35], (12.11.2006) A.K. 899; on *Salix* sp., [21], 12.10.2006, A.K. 702; 27.10.2007, A.K. 1268; [24], 11.10.2006, A.K. 680; 27.10.2007, A.K. 1261; [40], 26.10.2007, A.K. 1240; [18], 27.10.2007, A.K. 1252; [78], 27.10.2007, A.K. 1260; [64], 12.10.2007, A.K. 743; 26.10.2007, A.K. 1229; [79], 28.10.2007, A.K. 1273.

115. *Pholiota gummosa* (Lasch) Sing.

Under *Salix* sp., [23], 12.10.2006, A.K. 712.

116. *Pholiota lucifera* (Lasch) Quél.

On branch [30], 08.05.2006, A.K. 226.

117. *Pholiota populnea* (Pers.) Kuyp. and Tjall.-Beuk.

On *Populus* sp. stump, [83], 11.10.2006, A.K. 666; on *Malus* sp., [6], 12.10.2006, A.K. 735; on *Populus* sp., [75], 13.10.2006, A.K. 744; [71], 13.10.2006, A.K. 763; [44], 14.10.2006, A.K. 780; [96], 11.11.2006, A.K. 822; [34], 12.11.2006, A.K. 932; on *Populus* sp. stump, [6], 15.11.2006, A.K. 1061; [37], 26.10.2007, A.K. 1242; [7], 27.10.2007, A.K. 1248.

118. *Pholiota squarrosa* (Bull.) P. Kumm.
Under *Populus* sp., [83], 11.11.2006, A.K. 816.
119. *Stropharia coronilla* (Bull.) Quéf.
In meadowland, [16], 14.04.2006, A.K. 36; 11.05.2006, A.K. 431; [41], 17.04.2006, A.K. 96; [69], 07.05.2006, A.K. 173; [62], 07.05.2006, A.K. 196; [46], [44], 09.05.2006, A.K. 273; under *Pinus sylvestris* nurseries, [12], 14.07.2006, A.K. 591; in meadowland, [21], 11.10.2006, A.K. 708; [91], 11.11.2006, A.K. 1071.
120. *Tubaria conspersa* (Pers.) Fay.
Under *Prunus* sp., [3], 14.04.2006, A.K. 29.
- Tricholomataceae** R. Heim ex Pouzar
121. *Clitocybe rivulosa* (Pers.) P. Kumm.
Under thicket, [90], 11.10.2006, A.K. 649.
122. *Clitocybe phyllophila* (Pers.) P. Kumm.
Under *Crataegus* sp., [8], 11.05.2006, A.K. 406; under *Salix* sp., [4], 11.05.2006, A.K. 425; under *Pinus sylvestris*, [12], 14.07.2006, A.K. 590; under *Pinus sylvestris*, [81], 11.11.2006, A.K. 799.
123. *Lepista irina* (Fr.) H.E. Bigelow.
In meadowland, [95], 14.04.2006, A.K. 27.
124. *Lepista muda* (Bull.) Cke.
Under wild of *Prunus* sp., [5], 15.04.2006, A.K. 46; [37], 17.04.2006, A.K. 88, under *Populus* sp., [43], 10.05.2006, A.K. 361; under *Salix* sp., [4], (10.05.2006, A.K. 419; under *Populus* sp., [64], 06.06.2006, A.K. 557; under *Quercus* sp., [64], 11.11.2006, A.K. 860; under *Malus* sp., [94], 22.10.2006, A.K. 798; under *Salix* sp., [78], 11.11.2006, A.K. 817; under *Quercus* sp., [59], 12.11.2006, A.K. 949; under *Pinus sylvestris*, [62], 11.11.2007, A.K. 1070.
125. *Lepista personata* (Fr.) Cke.
Under *Populus* sp., [91], 14.04.2006, A.K. 11; under *Salix* sp., [78], 14.04.2006, A.K. 14; [19], 16.04.2006, A.K. 51; in meadowland, [62], 16.04.2006, A.K. 56; under *Salix* sp., [98], 16.04.2006, A.K. 121; under *Acacia* sp., [81], 11.11.2006, A.K. 802; under thicket, [31], 12.11.2006, A.K. 915; under *Pinus sylvestris*, [12], 16.06.2006, A.K. 1110.
126. *Lepista sordida* (Schum.) Sing.
Under *Populus* sp., [35], 12.11.2006, A.K. 900.
127. *Melanoleuca cognata* var. *cognata* (Fr.) Konrad & Maubl.
In mixed forest, [10], 05.06.2006, A.K. 506.
128. *Melanoleuca excissa* var. *excissa* (Fr.) Singer
Pinus sylvestris nursery side, [62], 07.05.2006, A.K. 198.
129. *Melanoleuca melaleuca* (Pers.) Murr.
Pinus sylvestris nursery, [62], 07.05.2006, A.K. 201.
130. *Melanoleuca stridula* (Fr.) Sing.
Under *Pinus sylvestris*, [62], 07.05.2006, A.K. 199.
130. *Melanoleuca subalpina* (Britz.) Bresinsky and Stangl
In meadowland, [57], 09.05.2006, A.K. 321.
132. *Tricholoma basirubens* (Bon) A. Riva and Bon
Under *Pinus sylvestris*, [64], 11.11.2006, A.K. 851.
133. *Tricholoma fracticum* (Britz.) Kreisel
Under *Pinus sylvestris*, [62], 13.10.2006, A.K. 757.
134. *Tricholoma populinum* J.E. Lange
Under *Populus* sp., [93], 10.10.2006, A.K. 644; under mixed trees, [9], 11.11.2006, A.K. 839; under *Pinus sylvestris*, [64], 11.11.2006, A.K. 853.
135. *Tricholoma scalpturatum* (Fr.) Quéf.
In mixed forest, [10], 05.06.2006, A.K. 515.
136. *Tricholoma stans* (Fr.) Sacc.
Under *Pinus sylvestris*, [64], 11.11.2006, A.K. 867.
137. *Tricholoma sulphurescens* Bres.
Under shrubbery, [10], 13.07.2006, A.K. 571.
138. *Tricholoma virgatum* (Fr.) P. Kumm.
Under *Pinus sylvestris*, [81], 11.11.2006, A.K. 801; under *Pinus sylvestris*, [90], 11.11.2006, A.K. 808; under *Pinus sylvestris*, [9], 11.11.2006, A.K. 829.
- Auriculariales**
- Auriculariaceae** Fr.
139. *Auricularia mesenterica* (Dicks.) Pers.
On *Acacia* sp., [40], 17.04.2006, A.K. 100; on stump, brook side, [28], 14.11.2006, A.K. 1024.
- Boletales**
- Boletaceae** Che.
140. *Boletus calopus* Pers.
Under *Quercus* sp., [64], 06.06.2006, A.K. 543.
141. *Boletus chrysenteron* Bull.
Mixed forest, [64], 16.06.2007, A.K. 1128.
142. *Boletus luridus* var. *luridus* Schäeff.
Under *Quercus* sp., [64], 15.07.2006, A.K. 594; 16.06.2007, A.K. 1135.
143. *Boletus porosporus* Imler ex Bon & G. Meoreno
Under *Quercus* sp., [64], 05.07.2006, A.K. 59.
144. *Boletus radicans* Pers.
Under *Pinus sylvestris*, [9], 11.11.2006, A.K. 833.
145. *Boletus subtomentosus* L.
Under *Pinus sylvestris*, [9], 11.11.2006, A.K. 838.
146. **Leccinum atrostitipitatum* A.H. Sm. Thiers and Watl.
Under mixed trees, [77], 16.07.2006, A.K. 632.
147. *Leccinum aurantiacum* (Bull.) Gray
Under *Populus* sp., [64], 15.07.2006, A.K. 602.
148. *Leccinum pseudoscabrum* (Kallenb.) Šutara
Under *Populus* sp., [64], 06.06.2006, A.K. 533.
149. *Leccinum quercinum* (Pilát) E.E. Green and Watling
In mixed forest, [10], 05.06.2006, A.K. 514.
150. *Leccinum scabrum* (Bul.) Gray
In mixed forest, [10], 05.06.2006, A.K. 509; 16.06.2007, A.K. 1129.

151. *Leccinum versipelle* (Fr. and Hök) Snell
Under mixed trees, [64], 06.06.2006, A.K. 535.

Diplocystidiaceae Kreisel

152. *Astraeus hygrometricus* (Pers.) Morg.
Under *Salix* sp., [75], (07.05.2006) A.K. 162; in *Quercus* sp. forest, [49], 09.05.2006, A.K. 250; [46], in *Quercus* sp. forest, 09.05.2006, A.K. 466.

Paxillaceae Lotsy

153. *Paxillus involutus* (Batsch) Fr.
Under *Populus* sp., [64], 06.06.2006, A.K. 534; under *Pinus sylvestris*, [64], 15.07.2006, A.K. 615; under *Populus* sp., [64], 16.06.2007, A.K. 1124; under *Populus* sp., [64], 06.06.2006, A.K. 534; under *Pinus sylvestris*, 15.07.2006, A.K. 615; under *Populus* sp., 16.06.2007, A.K. 1124; under *Populus* sp., [10], 13.07.2006, A.K. 565; 17.06.2007, A.K.1181; 10.09.2007, A.K.1195; under *Salix* sp., [77], 13.10.2006, A.K. 762.
154. *Paxillus rubicundulus* P.D. Orton
Under *Pinus sylvestris*, [10], 25.10.2007, A.K. 1212.

Suillaceae Besl and Bresinsky

155. *Suillus bovinus* (Pers.) Roussel
In *Pinus sylvestris* nursery, [12], 14.07.2006, A.K. 589; in mixed forest, [64], 16.06.2007, A.K. 1122.
156. *Suillus collinitus* (Fr.) Kuntze
Under *Pinus sylvestris*, [64], 16.06.2007, A.K. 559.
157. *Suillus granulatus* (L.) Roussel
In conifer forest, [73], 06.06.2006, A.K. 548; in mixed forest, [10], 13.07.2006, A.K. 566.
158. *Suillus luteus* (L.) Roussel
Under *Pinus sylvestris*, Karapýnar location, [75], 07.05.2006, A.K. 149; under *Pinus sylvestris*, [10], 05.06.2006, A.K. 505; 25.10.2007, A.K. 1211; in conifer forest, [73], 06.06.2006, A.K. 545; under *Pinus sylvestris*, [76], 06.06.2006, A.K. 551; under *Pinus sylvestris*, [9], 11.11.2006, A.K. 827; mixed forest, [64], 11.11.2006, A.K. 856; in *Pinus sylvestris* nursery, [12], 16.06.2007, A.K. 1114.
159. *Suillus variegatus* (Sw.) Kuntze
Under *Pinus sylvestris*, [64], 15.07.2006, A.K. 605.

Geastrales

Geastraceae Corda

160. *Geastrum schmidelii* Vittad.
In meadowland, Karapýnar location, [75], 10.05.2006, A.K. 463; under conifer trees, [72], 16.07.2006, A.K. 634.

Polyporales

Fomitopsidaceae Jülich

161. *Fomitopsis pinicola* (Sw.) P.Karst.
On *Populus* sp. stump, [62], 06.06.2006, A.K. 555.

Ganodermataceae Donk

162. *Ganoderma adspersum* (Schulz.) Donk.
On *Populus* sp. Stump, [56], 13.11.2006, A.K. 991.
163. *Ganoderma applanatum* (Pers.) Pat.
On *Salix* sp. stump, [93], 11.10.2006, A.K. 652; on *Phoenix* sp. stump, [57], 14.11.2006, A.K. 1008.
164. *Ganoderma lucidum* (Curt.) P. Karst.
On *Salix* sp. stump, [80], 14.04.2006, A.K. 135.

Hymenochaetaceae Imazeki and Toki

165. *Inonotus hispidus* (Bull.) P. Karst.
On *Juglans* sp., [59], 12.11.2006, A.K. 950; on *Juglans* sp., [47], 14.11.2006, A.K. 1016; on *Malus* sp., [47], 14.11.2006, A.K. 1006.
166. *Phellinus igniarius* (L.) Quél.
On *Morus* sp., [45], 28.04.2007, A.K. 1091; on *Salix* sp. stump, [15], 15.06.2007, A.K. 1096; on *Salix* sp., [1], 27.10.2007, A.K. 1249; [78], 27.10.2007, A.K. 1259; on *Salix* sp. stump, [23], 27.10.2007, A.K. 1264; on *Salix* sp., [23], 28.10.2007, A.K. 1270; [80], 14.04.2006, A.K. 136; [83], 11.05.2006, A.K. 452; [23], 12.10.2006, A.K. 710; on *Populus* sp., [10], 10.09.2007, A.K. 1193; on *Salix* sp., [64], 26.10.2007, A.K. 1228; [80], 27.10.2007, A.K. 1283.

Polyporaceae Fr. ex Corda

167. *Fomes fomentarius* (L.) J. Kieck f.
On *Populus* sp., [38], 16.04.2006, A.K. 77; on *Populus* sp. stump, [37], 17.04.2006, A.K. 84; on *Salix* sp., [6], 15.04.2006, A.K. 143; on *Salix* sp. stump, [22], 12.10.2006, A.K. 717; on *Salix* sp., [66], 13.10.2006, A.K. 765; on *Salix* sp. stump, [37], 14.10.2006, A.K. 269; on *Populus* sp., [33], 12.11.2006, A.K. 928; on *Populus* sp. stump, [1], 26.10.2007, A.K.1221, [76], 26.10.2007, A.K. 1233; on *Juglans* sp., [37], 26.10.2007, A.K. 1238.
168. *Polyporus arcularius* (Batsch) Fr.
Under *Prunus* sp., on branch, [2], 15.04.2006, A.K. 55; on branch of decay, [95], 14.04.2006, A.K. 131.
169. *Polyporus brumalis* (Pers.) Fr.
On branch of *Acacia* sp., [97], 14.04.2006, A.K. 19.
170. *Polyporus squamosus* (Huds.) Fr.
On tree stump, [40], 17.04.2006, A.K. 98; on *Salix* sp., [75], 07.05.2006, A.K. 157; on *Salix* sp. stump, [83], 11.05.2006, A.K. 450; [80], 11.05.2006, A.K. 453; [86], 05.06.2006, A.K.483; on *Salix* sp., [21], 05.06.2006, A.K. 499; on *Salix* sp. stump, [25], 05.06.2006, A.K. 501; [76], (06.06.2006) A.K. 553; on *Salix* sp., [82], 05.06.2006, A.K.561; [64], 04.09.2006, A.K. 637; on *Populus* sp. stump, [79], 11.10.2006, A.K. 656; on *Salix* sp. stump, [60], 11.10.2006, A.K. 696; on tree stump, [1], 15.06.2007, A.K. 1109, 26.10.2007, A.K. 1220; on *Salix* sp. stump, [80], 27.10.2007, A.K. 1276.
171. *Postia stiptica* (Pers.) Jül.

- On *Populus* sp. stump, [21], 27.10.2007, A.K. 1263.
 172. *Trametes gibbosa* (Pers.) Fr.
 On *Phoenix* sp., [47], 14.11.2006, A.K. 1015.
 173. *Trametes hirsuta* (Wulfen) Lloyd
 On *Populus* sp. stump, [27], 12.11.2006, A.K. 941;
 [45], 28.04.2007, A.K. 1093.
 174. *Trametes ochracea* (Pers.) Gilb. & Ryvardeen
 On tree stump, [6], 15.04.2006, A.K. 50; on *Malus* sp.
 stump, [33], 12.11.2006, A.K. 921.
 175. *Trametes suaveolens* (L.) Fr.
 On tree stump, [10], 10.09.2007, A.K. 1190.
 176. *Trametes trogii* Berk.
 On *Populus* sp. stump, [91], 14.04.2006, A.K. 13; [41],
 17.04.2006, A.K. 93; [47], 28.04.2007, A.K. 1087; [1],
 15.06.2007 A.K. 1105.
 177. *Trametes versicolor* (L.) Lloyd
 On *Populus* sp. stump, [40], 17.04.2006, A.K. 116.

Gomphales

Gomphaceae Donk

178. *Ramaria lutea* (Vitt.) Schild
 On decay branch of *Populus* sp., [32], 08.05.2006,
 A.K. 211.
 179. *Ramaria stricta* (Pers.) Quél.
 Under shrubbery, [31], 12.11.2006, A.K. 911.

Russulales

Russulaceae Lhotsky

180. *Lactarius bertillonii* (Neuh. ex Z. Schäeff.) Bon
 Under *Salix* sp., [96], 11.11.2006, A.K. 821.
 181. *Lactarius controversus* (Pers.) Pers.
 Under shrubbery, [10], 13.07.2006, A.K. 582; in mixed
 forest, [10], 10.09.2007, A.K. 1196.
 182. *Lactarius deliciosus* (L.) Gray
 Under *Pinus sylvestris*, [64], 15.07.2006, A.K. 616.
 183. *Lactarius piperatus* (L.) Pers.
 In *Quercus* sp. forest, [49], 09.05.2006, A.K. 248.
 184. *Russula aurea* Pers.
 Under *Quercus* sp., [64], 15.07.2006, A.K. 593.
 185. *Russula cremeoavellanea* Sing.
 In mixed forest, [69], (15.07.2006) A.K. 627.
 186. *Russula delica* Fr.
 In mixed forest, [64], 04.09.2006, A.K. 640.
 187. **Russula dryadicola* Fellner & Landa
 Under *Populus* sp. and *Quercus* sp., [64], 15.07.2006,
 A.K. 606.
 188. *Russula foetens* (Pers.) Pers.
 Under *Quercus* sp., [50], 09.05.2006, A.K. 289.
 189. *Russula luteotacta* Rea
 Under *Populus* sp. and *Quercus* sp., [64], 15.07.2006,
 A.K. 603.

190. **Russula silvicola* Shaff.
 Under *Pinus sylvestris*, [69], (15.07.2006) A.K. 609.

Tremellales

Tremellaceae Fr.

191. *Tremella mesenterica* Schaeff.
 On of *Prunus* sp., [46], 09.05.2006, A.K. 265.

DISCUSSION

In the present study a total of 191 macrofungi taxa belonging to 33 families and 9 orders in *Pezizomycetes* and *Agaricomycetes* classis were determined. *Agaricaceae* (21 taxa), *Tricholomataceae* (18 taxa) and *Psathyrellaceae* (18 taxa) are the first three crowdest families respectively second and thirt crowded families. The members of *Agaricaceae* have no particular habitat, while *Tricholomataceae* and *Psathyrellaceae* prefer mostly woody environments and these two members live symbiotically with woody plants.

Among 191, 72 are edible and 19 are poisonous. Ten of the edible 72 taxa are well known by local people and consumed as food. Those are *Morchella conica*, *M. esculenta*, *M. esculenta* var. *umbrina*, *M. rigida*, *M. vulgaris*, *Agaricus bisporus*, *A. urinascens* var. *urinascens*, *Coprinus comatus* and *Pleurotus eryngii*. Additionally, the members of the genus *Morchella*, *Agaricus* and *Pleurotus eryngii* have commercial value. The above economically important macrofungi are known as kara mantar, çayır mantarı and çadır mantarı, respectively. The local people are quite willing for consuming and marketing of naturally grown macrofungi. Moreover a competition with prize for macrofungi colletion are organised every year between 19 and 24 May in Kemaliye.

The taxa identified in the present study were compared to those of the studies carried out in neighbouring areas. The similarity percentage in the number of taxa were determined to be 44% with Erzurum (Demirel *et al.*, 2003), 40% with Sivas (Huseyin *et al.*, 2000), 42% with Güntüşhane (Uzun *et al.*, 2006) and 57% with Bayburt (Uzun *et al.*, 2004) regions. The similarity percentega may be attributed to the climatic and vegetational likeness and difference.

Helvella latispora, *Conocybe pubescens*, *Coprinus strossmayeri*, *Coprinus vosoustii*, *Leccinum atrostipitatum*, *Entoloma poliopus* var. *parvisporigerum*, *Psathyrella friesii* *Russula dryadicola* and *R. silvicola* are added to Turkish macromycota as new records.

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REFERENCES

- Akman, Y., 1990. İklim ve Biyoiklim. Palme Yayın Dağıtım, Ankara, pp: 350.
- Akçay, M.E., Y. Uzun and A. Kaya, 2010. Malazgirt (Mus) yöresi makrofunguslarına katkılar. J. Fungus, 1: 14-20.
- Anonymus, 2001. Meteoroloji bülteni. Devlet Meteoroloji İşleri Genel Müdürlüğü, Ankara.
- Anonymus, 2005. Türkiye Cumhuriyetinin 83. Yılında Erzincan Gemi Ofset, Ankara.
- Breitenbach, J. and F. Kränzlin, 1984. Fungi of Switzerland. Vol. 1-5, Mycological Society of Luzerne, Switzerland.
- Bresinsky, A. and H. Besl, 1990. A Colour Atlas of Poisonous Fungi. Wolf Publishing, London.
- Buczacki, S., 1989. Mushrooms and Toadstools of Britain and Europe. W Collins Sons and Co. Ltd., London.
- Cannon, P.F. and P.F. Kirk, 2007. Fungal Families of the World. CAB International, Wallingford.
- Dähncke, M.R., 2004. 1200 Pilze in Farbfotos. AT Verlag Aarau, Schweiz.
- Davis, P.H., 1965. Flora of Turkey and the East Aegean Islands. Vol. 1, Edinburgh University Press, Edinburgh.
- Demirel, K. and M. Nacar, 2000. Macrofungi of Cemisgezdek (Tunceli) district. Hacettepe Bull. Nat. Sci. Eng. Ser. A, 29: 1-7.
- Demirel, K., Y. Uzun and A. Kaya, 2002. Macrofungi of Agri province. Turk. J. Bot., 26: 291-295.
- Demirel, K., A. Kaya and Y. Uzun, 2003. Macrofungi of Erzurum province. Turk. J. Bot., 27: 37-43.
- Ellis, M.B. and J.P. Ellis, 1990. Fungi Without Gills (Hymenomycetes and Gasteromycetes). Chapman and Hall, London.
- Huseyin, E., I. Aslantas and F. Selcuk, 2000. Sivas yöresi şapkali mantarlarının trofik yapısı. Proceedings of 15th Ulusal Biyoloji Kongresi, Sept. 5-9, Ankara, pp: 143-147.
- Jordan, M., 1995. The Encyclopedia of Fungi of Britain and Europe. David and Charles Book Co., Devon.
- Kaya, A., 2009a. Macrofungual diversity of Adıyaman province (Turkey). Mycotaxon, 110: 43-46.
- Kaya, A., 2009b. Macrofungi of Huzurlu high plateau (Gaziantep-Turkey). Turk. J. Bot., 33: 429-437.
- Kibby, G., 1997. An Illustrated Guide to Mushrooms and Other Fungi of Britain and Northern Europe. Parkgate Books Ltd., London.
- Kirk, P.F., P.F. Cannon, D.W. Minter and J.A. Stalpers, 2008. Dictionary of the Fungi. CAB International, Wallingford.
- Kränzlin, F., 2005. Fungi of Switzerland. Vol. 6. Verlag Mykologia Lucerne, Switzerland, ISBN: 3-85604-260.
- Moser, M., 1983. Keys to Agarics and Boleti. Gustav Fischer Verlag, Stuttgart.
- Phillips, R., 1981. Mushrooms and Other Fungi of Great Britain and Europe. Pan Books Ltd., London.
- Sesli, E. and C.M. Denchev, 2008. Checklists of the Myxomycetes, larger *Ascomycetes* and larger *Basidiomycetes* in Turkey. Mycotaxon, 106: 65-67.
- Sesli, E., 2010. Türkiye mikotasına katkılar. J. Fungus, 1: 9-13.
- Solak, M.H., M. Isiloglu, E. Kalmis and H. Alli, 2007. Macrofungi of Turkey Checklist. Vol. 1, Universiteliler Ofset, Izmir.
- Uzun, Y., A. Keles, K. Demirel and M.H. Solak, 2004. Some macrofungi from Bayburt province in Turkey. Bull. Pure Applied Sci., 23: 47-55.
- Uzun, Y., A. Keles and K. Demirel, 2006. Contributions to the macrofungi flora of Gumushane province. Turk. J. Bot., 30: 39-46.
- Uzun, Y., A. Kaya, K. Demirel and M.E. Akçay, 2007. Macrofungi determined in Bingöl (Turkey). International Symposium 7th Plant Life of Southwest Asia, 25-29 Haziran 2007, Eskişehir.
- Uzun, Y., 2010. Macrofungual diversity of Ardahan and Iğdir province (Turkey). Int. J. Botany, 6: 11-20.
- Uzun, Y., K. Demirel, A. Kaya and F. Gücin, 2010a. Two new genus records for Turkish mycota. Mycotaxon, 111: 477-480.
- Uzun, Y., A. Kaya, M.E. Akçay and K. Demirel, 2010b. New additions to Turkish macrofungi from Bingöl province (Turkey). Turk. J. Bot., 34: 63-66.