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Macrofungi of Kemaliye district (Erzincan)

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Abstract: The material of this study comprises macrofungi specimens collected from different localities in Kemaliye district (Erzincan, Turkey) in 2006 and 2007. As a result of field and laboratory studies, 106 taxa under 35 families belonging to the classes Ascomycetes and Basidiomycetes are described: 3 of them, namely *Psathyrella panaeoloides* (Maire) Arnolds, *Galerina stylifera* var. *stylifera* (G.F.Atk.) A.H.Sm. & Singer, and *Inocybe amblyspora* Kühner, are new records for Turkey.

Key words: Macrofungi, taxonomy, new records, Kemaliye, Erzincan, Turkey

Kemaliye (Erzincan) yöresinin makrofungusları

Özet: Bu çalışmanın materyallerini 2006-2007 yıllarında Kemaliye ilçesine (Erzincan, Türkiye) ait farklı lokalitelerden toplanan makrofunguslar oluşturmaktadır. Arazi ve laboratuvar çalışmaları sonucu Ascomycetes ile Basidiomycetes sınıfında 35 familyaya ait 106 takson tespit edilmiştir. Bunlardan 3'ü; *Psathyrella panaeoloides* (Maire) Arnolds, *Galerina stylifera* var. *stylifera* (G.F.Atk.) A.H.Sm. & Singer ve *Inocybe amblyspora* Kühner Türkiye için yeni kayıttır.

Anahtar sözcükler: Makrofunguslar, taksonomi, yeni kayıtlar, Kemaliye, Erzincan, Türkiye

Introduction

Kemaliye is an important cultural centre located in a valley between the Munzur Mountains and the Sariçiçek High Plateau. It is on the edge of the Karasu River. Kemaliye has a partly continental climate, unlike the rest of Eastern Anatolia. Summers are hot and winters mild. Keban Dam makes the climate similar to that along the Black Sea coastline. Kemaliye district is very rich in wild

mushrooms, but there have not been any studies of the mushrooms in the area.

Many studies were conducted on the macromycota of Turkey between 1852 and 2010 (Solak et al., 2007; Solak et al., 2009; Kaya et al., 2010; Sesli & Denchev, 2010). Thus far, about 2400 macrofungi taxa have been reported from Turkey. However, present studies show that numerous macrofungal taxa inhabiting different parts of Turkey have not been determined yet.

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Materials and methods

During field trips in the area (Figure 1), morphological and ecological characteristics of macrofungi were recorded and collections were photographed in their natural habitats before being taken to the laboratory for identification. Specimens were identified by examining their macroscopic and microscopic features, using references by Breitenbach and Kränzlin (1984-2000), Capelli (1984), Ellis and Ellis (1990), Marchand (1971-1986), Moser (1983), Orton and Watling (1979), Orton (1986), Phillips (2006), Watling (1982), Watling and Gregory (1987, 1989), Brensinsky and Besl (1990), and Knudsen and Vesterholt (2008). All collected specimens are now deposited in the fungarium of the Biology Department, Faculty of Science and Arts, Muğla University.

Results

Of the 106 taxa of macrofungi collected and identified from the Kemaliye district (Erzincan) study area, 15 belong to Ascomycetes and 91 to Basidiomycetes. *Psathyrella panaeoloides* (Maire) Arnolds, *Galerina stylifera* var. *stylifera* (G.F. Atk.) A.H. Sm. & Singer, and *Inocybe amblyspora* Kühner are new records for Turkey.

List of Taxa

ASCOMYCETES

Helotiaceae

1. *Bisporella citrina* (Batsch) Korf & S.E.Carp.

Yuva village, on *Populus* sp., 850 m, 18.11.2006, *Allı* 2564; Ariki stream area, on *Quercus* sp., 850 m, 18.11.2006, *Allı* 2642.

Helvellaceae

2. *Helvella acetabulum* (L.) Quél.

Adak village, stream area, in meadow, 1035 m, 05.05.2007, *Allı* 2753; Yuva village, in meadow, 850 m, 07.05.2007, *Allı* 2796.

3. *Helvella costifera* Nannf.

Yuva village, in meadow, 850 m, 07.05.2007, *Allı* 2796a.

4. *Helvella lacunosa* Afzel.

Adak village, stream area, in meadow, 1035 m, 05.05.2007, *Allı* 2751.

5. *Helvella leucopus* Pers.

Adak village, stream area, in meadow, 1035 m, 05.05.2007, *Allı* 2751a.

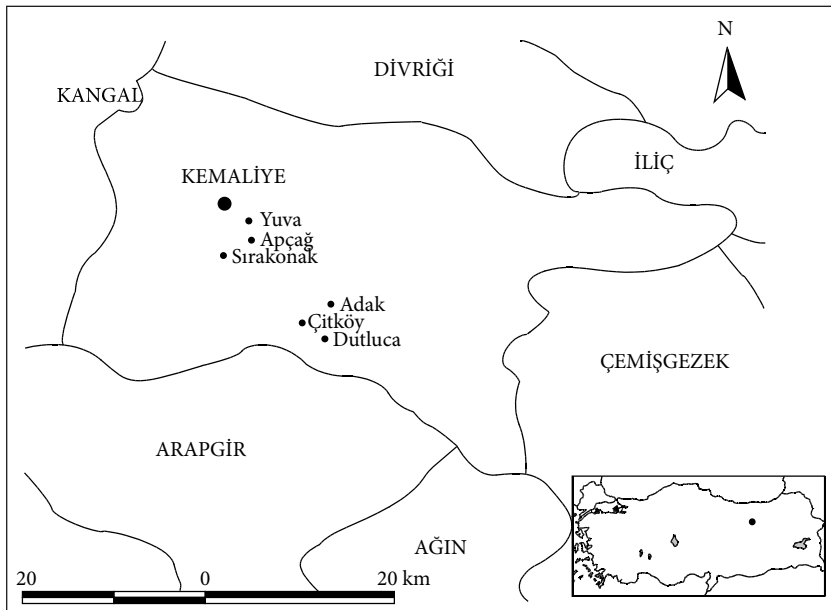


Figure 1. Collecting area.

6. *Helvella queletii* Bres.

Yuva village, in meadow, 850 m, 05.05.2007, *Allı* 2761.

Morchellaceae**7. *Mitrophora semilibera* (DC.) Lév.**

Yuva village, in meadow, 850 m, 17.04.2006, *Allı* 2403.

8. *Morchella angusticeps* Peck

Yuva village, in meadow, 850 m, 17.04.2006, *Allı* 2389.

9. *Morchella crassipes* (Vent.) Pers.

Dutluca village, in meadow, 970 m, 05.05.2007, *Allı* 2749.

10. *Morchella elata* Fr.

Adak village, stream area, in meadow, 1035 m, 05.05.2007 *Allı* 2752.

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

Yuva village, in meadow, 850 m, 17.04.2006, *Allı* 2392.

12. *Morchella esculenta* var. *rigida* (Krombh.) I.R.Hall, P.K.Buchanan, Wang & Cole

Yuva village, in meadow, 850 m, 10.05.2007, *Allı* 2726; Dutluca village, in meadow, 970 m, 05.05.2007, *Allı* 2749a.

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

Yuva village, in meadow, 850 m, 10.05.2007, *Allı* 2722.

14. *Verpa conica* (O.F.Müll.) Sw.

Yuva village, in meadow, 850 m, 17.04.2006, *Allı* 2388.

Pyronemataceae**15. *Tarzetta catinus* (Holmsk.) Korf & J.K.Rogers**

Yuva village, in meadow, 850 m, 17.04.2006, *Allı* 2397.

BASIDIOMYCETES**Agaricaceae****16. *Agaricus campestris* var. *campestris* L.**

Sirakonak area, in meadow, 1200 m, 20.11.2006, *Allı* 2453.

17. *Agaricus cupreobrunneus* (Jul.Schäff. & Steer) Pilát

Aposun stream area, on dung, 970 m, 19.11.2006, *Allı* 2503a.

18. *Bovista plumbea* Pers.

Aposun stream area, in meadow, 850 m, 08.05.2007, *Allı* 2711a.

19. *Coprinus comatus* (O.F.Müll.) Pers.

Manufactory area, in meadow, 860 m, 18.11.2006, *Allı* 2582.

20. *Coprinus patouillardii* f. *patouillardii* Quéf.

Yuva village, in meadow, 900 m, 18.11.2006, *Allı* 2560.

21. *Lycoperdon lividum* Pers.

Apçağ village, Atca Bağları area, in meadow, 1128 m, 21.11.2006, *Allı* 2664.

Amanitaceae**22. *Amanita argentea* Huijsman**

Aposun stream area, in meadow, 850 m, 08.05.2007, *Allı* 2708.

Auriculariaceae**23. *Auricularia mesenterica* (Dicks.) Pers.**

Seyit Ali park area, on *Dyospiros* sp., 1240 m, 23.09.2006, *Allı* 2499; Seyit Ali park area, on stumps of *Quercus* sp., 1240 m, 23.09.2006, *Allı* 2507; Seyit Ali park area, on stumps of *Ulmus* sp., 1240 m, 23.09.2006, *Allı* 2510.

Bolbitiaceae**24. *Conocybe apala* (Fr.) Arnolds**

Yuva village, in meadow, 850 m, 10.05.2007, *Allı* 2735.

Clavulinaceae**25. *Clavulina cinerea* (Bull.) J.Schröt.**

Aposun stream area, in meadow, 850 m, 08.05.2007, *Allı* 2709.

26. *Clavulina rugosa* (Bull.) J.Schröt.

Yuva village, in meadow, 900 m, 18.11.2006, *Allı* 2596.

Corticaceae

27. *Erythricium laetum* (P.Karst.) J.Erikss. & Hjortstam

Çit village, on *Fraxinus angustifolia* subsp. *angustifolia*, 1032 m, 08.05.2007, *Allı* 2712.

Cyphellaceae

28. *Chondrostereum purpureum* (Pers.) Pouzar

Yuva village, in meadow, on stumps of *Populus nigra*, 900 m, 18.11.2007, *Allı* 2568.

Diplocystidiaceae

29. *Astraeus hygrometricus* (Pers.) Morgan

Apçağ village, in meadow, 1128 m, 21.11.2006, *Allı* 2668.

Entolomataceae

30. *Entoloma undatum* (F.) M.M.Moser

Yuva village, in meadow, 850 m, 07.05.2007, *Allı* 2800.

Fistulinaceae

31. *Fistulina hepatica* (Schaeff.) With.

Yuva village, on *Populus nigra*, 850 m, 15.10.2006, *Allı* 2533a.

Ganodermataceae

32. *Ganoderma applanatum* (Pers.) Pat.

Ariki stream area, on *Juglans regia*, 850 m, 20.11.2006, *Allı* 2646.

33. *Ganoderma lucidum* (Curtis) P.Karst.

Yuva village, on *Quercus aucheri*, 850 m, 10.05.2007, *Allı* 2741.

Hymenochaetaceae

34. *Inonotus hispidus* (Bull.) P.Karst.

Sırakonak area, on stumps of *Populus nigra*, 1200 m, 23.09.2006, *Allı* 2498; Yuva village, on stumps of *Prunus* sp., 900 m, 17.04.2006, *Allı* 2542; Çit village, on stumps of *Prunus* sp., in cemetery, 1035 m, 05.05.2007, *Allı* 2769.

35. *Phellinus igniarius* (L.) Quél.

Sırakonak area, on *Salix alba*, 1200 m, 23.09.2006, *Allı* 2511; Çit village, on stumps of *Quercus* sp., 1030 m, 08.05.2007, *Allı* 2713.

36. *Phellinus lundellii* Niemelä

Yuva village, on stumps of *Populus nigra*, 900 m, 18.11.2006, *Allı* 2543.

37. *Phellinus pomaceus* (Pers.) Maire

Yuva village, on stumps of *Prunus* sp., 900 m, 18.11.2006, *Allı* 2545; Sırakonak area, on stumps of *Amygdalus communis*, 1200 m, 23.09.2006, *Allı* 2497; Dolunay village, on stumps of *Amygdalus communis*, 1170 m, 08.05.2007, *Allı* 2720.

38. *Phellinus robustus* (P.Karst.) Bourdot & Galzin

Yuva village, on stumps of *Quercus aucheri*, 900 m, 17.04.2006, *Allı* 2398; Sırakonak area, on stumps of *Prunus* sp., 1200 m, 23.09.2006, *Allı* 2500.

39. *Phellinus torulosus* (Pers.) Bourdot & Galzin

Yuva village, on stumps of *Quercus ilex*, 913 m, 18.11.2006, *Allı* 2578.

Hydnangiaceae

40. *Laccaria laccata* (Scop.) Cooke

Sırakonak area, in meadow, 1200 m, 14.04.2006, *Allı* 2371a.

Inocybaceae

41. *Inocybe amblyspora* Kühner (Figure 2).

Cap 1.5-2.5 cm, first conical, later campanulate, obtuse umbo, surface radially fibrillose, colour brown to reddish brown, margin acute. Flesh whitish, thin. Lamellae first grey-ochre, later brown, narrowly attached. Stipe 2-4 cm, cylindrical, fragile, surface white pruinose. Cheilocystidia 55-80 × 20-25 µ, lageniform to fusiform, apically encrusted with crystals, thick-walled. Spores 7-9 × 4.5-5.5 µ, elliptic, yellow-brown.

Yuva village, in meadow, 913 m, 07.05.2007, *Allı* 2790.

42. *Tubaria furfuracea* (Pers.) Gillet

Çit village, in meadow, 1030 m, 05.05.2007, *Allı* 2774.

Lachnocladiaceae

43. *Scytinostroma portentosum* (Berk. & M.A.Curtis) Donk

Sırakonak area, in meadow, 1200 m, 23.09.2006, *Allı* 2487.

Lyophyllaceae

44. *Hypsizygus ulmarius* (Bull.) Redhead

Yuva village, on *Populus* sp., 900 m, 18.11.2006, *Allı* 2580.

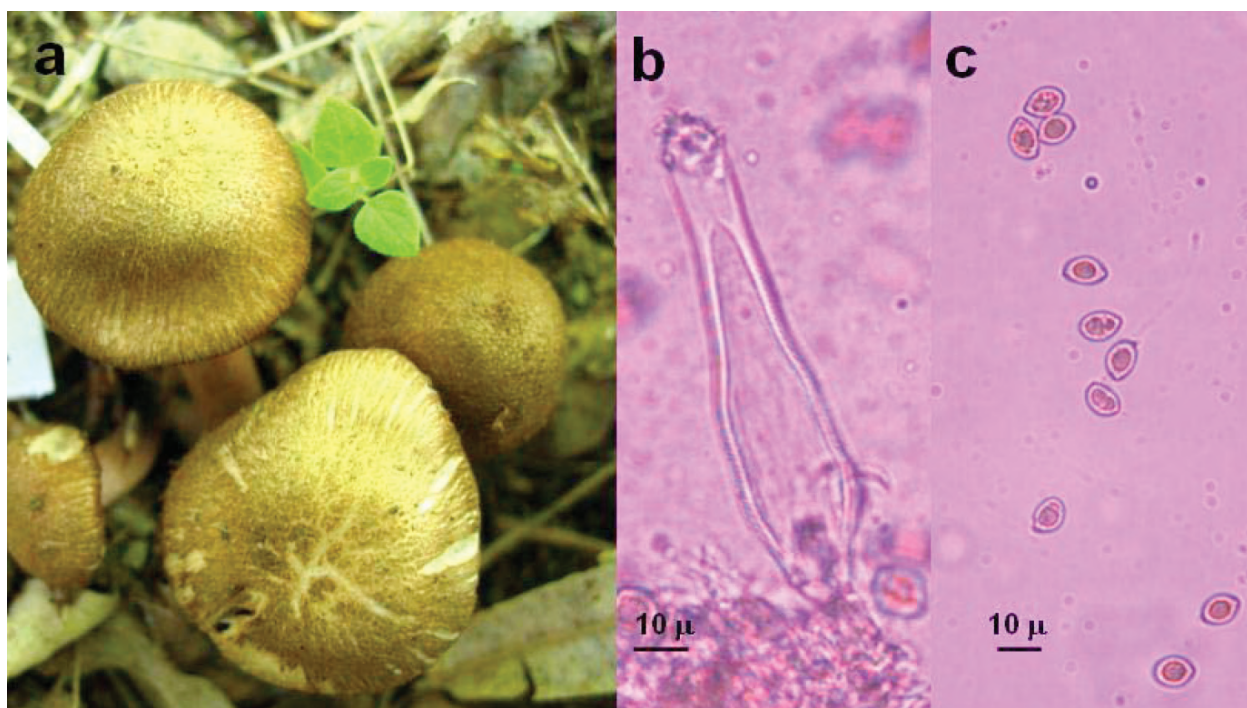


Figure 2. *Inocybe amblyspora*: a- basidiocarps, b- cheilocystidium, c- spores.

45. **Lyophyllum semitale** (Fr.) Kühner ex Kalamees

Hüseyin Söylemezoğlu park area, 1045 m, 20.11.2006, *Allı* 2638.

Marasmiaceae

46. **Omphalotus olearius** (DC.) Singer

Sırakonak area, in meadow, 1200 m, 20.11.2006, *Allı* 2626a.

Meruliaceae

47. **Bjerkandera adusta** (Willd.) P.Karst.

Yuva village, in meadow, on stumps of *Salix alba*, 900 m, 18.11.2006, *Allı* 2577.

Mycenaceae

48. **Mycena epipterygia** (Scop.) Gray

Çit village, in meadow, 1032 m, 06.05.2007, *Allı* 2775.

49. **Mycena crocata** (Schrad.) P.Kumm.

Yuva village, in meadow, 910 m, 07.05.2007, *Allı* 2806.

50. **Mycena inclinata** (Fr.) Quéł.

Çit village, in cemetery, in meadow, 1030 m, 06.05.2007, *Allı* 2768.

Physalacriaceae

51. **Armillaria mellea** (Vahl) P.Kumm.

Yuva village, in meadow, on stumps of *Populus nigra*, 900 m, 17.10.2006, *Allı* 2561; Apçağ village, on stumps of *Populus nigra*, 1128 m, 21.11.2006, *Allı* 2673.

52. **Armillaria tabescens** (Scop.) Emel

Kozluk stream area, on stumps of *Populus nigra*, 920 m, 19.11.2006, *Allı* 2609.

Pleurotaceae

53. **Pleurotus eryngii** (DC.) Quéł. var. **eryngii**

Sırakonak area, on *Ferula* sp., 1200 m, 06.05.2007 *Allı* 2781a.

54. **Pleurotus ostreatus** (Jacq.) P.Kumm.

Yuva village, on *Malus sylvestris*, 910 m, 18.11.2006, *Allı* 2539.

Pluteaceae

55. *Pluteus salicinus* (Pers.) P.Kumm.

Sırakonak area, on *Salix* sp., 1200 m, 20.11.2006, *Allı* 2622.

Polyporaceae

56. *Coriolopsis gallica* (Fr.) Ryvarden

Sırakonak area, on stumps of *Populus nigra*, 1200 m, 23.09.2006, *Allı* 2575.

57. *Fomes fomentarius* (L.) J.Kickx f.

Sırakonak area, on *Platanus orientalis*, 1200 m, 23.09.2006, *Allı* 2489; Sırakonak area, on *Juglans regia*, 1200 m, 23.09.2006, *Allı* 2489a; Sırakonak area, on *Alnus glutinosa*, 1200 m, 23.09.2006, *Allı* 2489b; Sırakonak area, on *Populus nigra* 1200 m, 06.05.2007 *Allı* 2781.

58. *Lentinus tigrinus* (Bull.) Fr.

Manufactory area, on *Tamarix* sp., 860 m, 18.11.2006, *Allı* 2588.

59. *Perenniporia medulla-panis* (Jacq.) Donk

Apozun Deresi area, on *Olea europea* 843 m, 08.05.2007, *Allı* 2716; Apozun Deresi area, on *Quercus* sp, 850 m, 08.05.2007, *Allı* 2716a.

60. *Trametes hirsuta* (Wulfen) Lloyd

Yuva village, on stumps of *Juglans regia*, 913 m, 18.11.2006, *Allı* 2576.

61. *Trametes trogii* Berk.

Sırakonak area, on *Quercus aucheri* 1200 m, 23.09.2006, *Allı* 2488a; Sırakonak area, on *Platanus orientalis*, 1200 m, 23.09.2006, *Allı* 2488b; Sırakonak area, on *Populus nigra*, 1200 m, 23.09.2006, *Allı* 2488c; Sırakonak area, on *Juglans regia*, 1200 m, 23.09.2006, *Allı* 2488.

62. *Trichaptum fuscoviolaceum* (Ehrenb.) Ryvarden

Yuva village, on stumps of *Pinus brutia*, 850 m, 18.11.2006, *Allı* 2579.

Psathyrellaceae

63. *Coprinellus disseminatus* (Pers.) J.E.Lange

Yuva village, in meadow, 900 m, 17.04.2006, *Allı* 2404; Yuva village, in meadow, 912 m 18.11.2006, *Allı* 2570.

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

Yuva village, in meadow, 900 m, 17.04.2006, *Allı* 2404a.

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

Sırakonak area, in meadow, 1200 m, 23.09.2006, *Allı* 2506.

66. *Coprinopsis atramentaria* (Bull.) Redhead, Vilgalys & Moncalvo

Manufactory area, in meadow, 860 m, 18.11.2006, *Allı* 2586; Sırakonak area, in meadow, 1200 m, 06.05.2007, *Allı* 2784.

67. *Coprinopsis lagopus* (Fr.) Redhead, Vilgalys & Moncalvo var. *lagopus*

Yuva village, in meadow, 910 m, 07.05.2007, *Allı* 2788.

68. *Coprinopsis nivea* (Pers.) Redhead, Vilgalys & Moncalvo

Karakoçlar area, on dung, 1180 m, 21.06.2006, *Allı* 2485.

69. *Coprinopsis stercorea* (Fr.) Redhead, Vilgalys & Moncalvo

Yuva village, on horse dung, in meadow, 910 m, 07.05.2007, *Allı* 2789.

70. *Lacrymaria lacrymabunda* (Bull.) Pat.

Yuva village, in meadow, 900 m, 18.11.2006, *Allı* 2579.

71. *Panaeolus olivaceus* F.H.Møller

Yuva village, in meadow, 910 m, 17.04.2006, *Allı* 2395.

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

Yuva village, in meadow, 913 m, 17.04.2006, *Allı* 2394.

73. *Psathyrella candolleana* (Fr.) Maire

Yuva village, in meadow, 913 m, 10.04.2007, *Allı* 2739.

74. *Psathyrella conopilus* (Fr.) A.Pearson & Dennis

Yuva village, in meadow, 910 m, 17.04.2006, *Allı* 2399.

75. *Psathyrella cotonea* (Quél.) Konrad & Maubl.

Yuva village, in meadow, 910 m, 10.04.2007, *Alli* 2730.

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

Dutluca village, in meadow, 1155 m, 05.05.2007, *Alli* 2755.

77. *Psathyrella panaeoloides* (Maire) Arnolds (Figure 3).

Cap 0.5-1 cm firstly hemispherical then conic, surface slightly micaceous, dark red-brown when moist, later dark grey-brown, the cap edge is striate, when dry beige-brown, margin acute. Flesh brown, thin. Lamellae firstly light beige, later grey to purple-brown. Stipe 1.5-2.5 cm, cylindrical, hollow, colour grey-brown, covered white fibrillose. Spore 7-8 × 4-6 μ, subglobose, grey brown, has a germ pore. Spore print purple-black.

Dolunay village, in grass, 1175 m, 05.05.2007, *Alli* 2770.

78. *Psathyrella phegophila* Romagn.

Çit village, in meadow, 1032 m, 05.05.2007, *Alli* 2771.

79. *Psathyrella spadiceogrisea* (Schaeff.) Maire

Çit village, in meadow, 1035 m, 05.05.2007, *Alli* 2767.

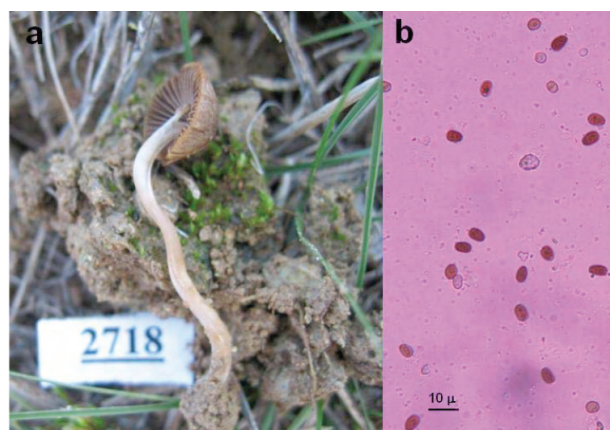
80. *Psathyrella tephrophylla* (Romagn.) M.M.Moser

Figure 3. *Psathyrella panaeoloides*: a- basidiocarps, b- spores.

Yuva village, in meadow, 950 m, 09.04.2007, *Alli* 2717.

Russulaceae**81. *Russula emetica*** var. ***emetica*** (Schaeff.) Pers.

Kozluk, stream area, in *Quercus* forest, 920 m, 19.11.2006, *Alli* 2611.

Sclerodermataceae**82. *Scleroderma verrucosum*** (Bull.) Pers.

Çit village, in *Quercus* forest, 1030 m, 05.05.2007, *Alli* 2777.

Schizophyllaceae**83. *Schizophyllum commune*** Fr.

Sirakonak area, on *Quercus* sp., 1200 m, 23.09.2006, *Alli* 2492; Sirakonak area, on *Juglans regia*, 1200 m, 23.09.2006, *Alli* 2501; Yuva village, on *Prunus* sp., 1175 m, 17.10.2006, *Alli* 2534.

Stereaceae**84. *Stereum hirsutum*** (Willd.) Pers.

Sirakonak area, on *Quercus* sp., 1200 m, 23.09.2006, *Alli* 2502.

85. *Stereum sanguinolentum* (Alb. & Schwein.) Fr.

Sirakonak area, on *Cydonia vulgaris*, 1200 m, 23.09.2006, *Alli* 2505.

Strophariaceae**86. *Agrocybe cylindracea*** (DC.) Maire

Yuva village, on stumps of *Populus nigra*, 900 m, 17.04.2006, *Alli* 2396; Kozluk stream area, on stumps of *Salix alba*, 920 m, 19.11.2006, *Alli* 2608.

87. *Agrocybe praecox* (Pers.) Fayod

Yuva village, in meadow, 850 m, 07.05.2007, *Alli* 2798.

88. *Agrocybe sphaleromorpha* (Bull.) Fayod

Yuva village, in meadow, 900 m, 17.04.2006, *Alli* 2402.

89. *Agrocybe vervacti* (Fr.) Singer

Yuva village, in meadow, 850 m, 07.05.2007, *Alli* 2801.

90. *Galerina stylifera* var. ***stylifera*** (G.F.Atk.) A.H.Sm. & Singer (Figure 4).

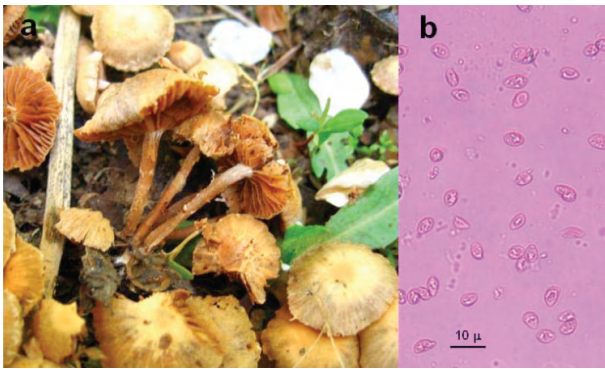


Figure 4. *Galerina stylifera* var. *stylifera*: a- basidiocarps b- spores.

Cap 3-4 cm, firstly campanulate, than convex, surface hygrophanous, colour when moist, firstly dark brown, later when dry, ochre-yellow, margin acute. Flesh light yellow. Lamellae firstly cream, later brown, attached. Stipe 4-6 × 0.3-0.5 cm, cylindrical, surface densely white woolly fibrillose on an olive-brown background, irregularly banded in places, has an annular zone. Spore 6-8 × 4-5 μ, elliptic, light yellow. Spore print ochre-brown.

Yuva village, on *Pinus sylvestris*, 905 m, 07.05.2007, *Allı* 2787.

91. Hebeloma alpinum (J.Favre) Bruchet

Apçağ village, in meadow, 1128 m, 21.11.2006, *Allı* 2661.

92. Kuehneromyces mutabilis (Schaeff.) Singer & A.H.Sm.

Sırakonak area, on *Cerasus avium*, 1200 m, 20.11.2006, *Allı* 2504.

93. Pholiota aurivella (Batsch) P.Kumm.

Yuva village, on *Populus nigra*, 900 m, 07.05.2007, *Allı* 2802.

94. Pholiota lucifera (Lasch) Quéf.

Yuva village, on *Platanus orientalis*, 850 m, 17.04.2006, *Allı* 2393; Aposun stream area, on horse dung, 970 m, 19.11.2007, *Allı* 2607.

95. Pholiota populnea (Pers.) Kuyper & Tjall.-Beuk.

Yuva village, on stumps of *Populus nigra*, 850 m, 18.11.2006, *Allı* 2538; Yuva village, on stumps of *Populus nigra*, 852 m, 10.04.2007, *Allı* 2733.

96. Stropharia coronilla (Bull.) Quéf.

Yuva village, in meadow, 851 m, 17.10.2006, *Allı* 2535.

Suillaceae

97. Suillus collinitus (Fr.) Kuntze

Hüseyin Söylemezoğlu park area, in *Pinus nigra* forest, 1185 m, 20.11.2006, *Allı* 2618.

98. Suillus granulatus (L.) Roussel

Ariki stream area, in *Quercus* forest, 950 m, 20.11.2006, *Allı* 2652.

Tricholomataceae

99. Clitocybe dryadicola (J.Favre) Harmaja

Yuva village, Kızılkum area, in meadow, 900 m, 18.11.2006, *Allı* 2592.

100. Clitocybe inornata (Sowerby) Gillet

Apçağ village, in meadow, 1128 m, 21.11.2006, *Allı* 2671.

101. Lepista nuda (Bull.) Cooke

Yuva village, in meadow, 900 m, 17.04.2006, *Allı* 2390; Yuva village, in meadow, 870 m, 18.11.2006, *Allı* 2550.

102. Lepista personata (Fr.) Cooke

Yuva village, in meadow, 900 m, 17.04.2006, *Allı* 2391.

103. Melanoleuca excissa var. *excissa* (Fr.) Singer

Seyit Ali park area, in meadow, 1240 m, 20.11.2006, *Allı* 2646.

104. Tricholoma portentosum (Fr.) Quéf.

Kozluk, stream area, in *Quercus* forest, 920 m, 19.11.2006, *Allı* 2608.

105. Tricholoma scalpturatum (Fr.) Quéf.

Ariki stream area, in *Quercus* forest, 850 m, 18.11.2006, *Allı* 2616.

106. Tricholoma sciodes (Pers.) C.Martín

Hüseyin Söylemezoğlu park area, in *Pinus nigra* forest, 1185 m, 20.11.2006, *Allı* 2630.

Discussion

In this paper, 106 macrofungi taxa belonging to 35 families collected from Kemaliye district are reported: 15 of them are Ascomycetes and 91 Basidiomycetes. Of those taxa, 14% of the macrofungi are Ascomycetes, while 86% are Basidiomycetes.

The distribution of the taxa and their families is as follows: Psathyrellaceae 18, Strophariaceae 11, Morchellaceae 8, Tricholomataceae 8, Polyporaceae 7, Agaricaceae 6, Hymenochaetaceae 6, Helvellaceae 5, Mycenaceae 3, Clavulinaceae 2, Inocybaceae 2, Ganodermataceae 2, Lyophyllaceae 2, Physalacriaceae 2, Pleurotaceae 2, Stereaceae 2, Suillaceae 2, Amanitaceae 1, Auriculariaceae 1, Bolbitiaceae 1, Corticiaceae 1, Cyphellaceae 1, Diplocystidiaceae 1, Entolomataceae 1, Fistulinaceae 1, Helotiaceae 1, Hydangiaceae 1, Lachnocladiaceae 1, Marasmiaceae 1, Meruliaceae 1, Pluteaceae 1, Pyronemataceae 1, Russulaceae 1, Sclerodermataceae 1, Schizophyllaceae 1.

Gücin (1984), Işiloğlu (1997), Işiloğlu and Öder (1995), and Hüseyinov et al. (2001) have conducted similar studies in neighbouring regions, but ours is the first detailed study on macrofungi in Kemaliye district. Our research demonstrates that there are certain similarities between the macrofungi found in Kemaliye and those reported from the adjacent areas, which is indubitably a result of the similar

habitats and flora. The current study represents significant contribution to the knowledge of Turkish macromycota.

Thirty-seven of the 106 taxa are edible (Bon, 1987; Pacioni, 1985; Dähncke, 1993; Phillips, 2006), but only *Pleurotus eryngii* var. *eryngii* is known as an edible mushroom by local people. About 11% (12 taxa) of the taxa are poisonous and 54% (57 species) are inedible but none of them are recognised by local people. No poisoning incidents have been recorded from the area. Lignicolous macrofungi represented 18% of the species (20 taxa) in the area. Some live as parasites on live trees and cause organic product loss and structural damage to the host trees. The most common taxa were *Armillaria mellea*, *Agrocybe cylindracea*, *Auricularia mesenterica*, *Fomes fomentarius*, *Inonotus hispidus*, *Phellinus pomaceus*, *Pholiota populnea*, *Schizophyllum commune*, and *Trametes trogii*.

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References

- Bon M (1987). *The Mushrooms and Toadstools of Britain and North-Western Europe*, Hodder-Stoughton, London.
- Breitenbach J & Kränzlin F (1984-2000). *Fungi of Switzerland* Vols. 1-5, Luzerne: Verlag Mykologia.
- Brensinsky A & Besl H (1990). *Colour Atlas of Poisonous Fungi*, Stuttgart: Wolfe Publishing Ltd.
- Capelli A (1984). *Fungi Europaei, Agaricus*. Libreria editrice Biella Giovanna, Italy.
- Dähncke RM (1993). *1200 Pilze*. AT Verlag Aarau, Stuttgart.
- Ellis MB & Ellis JP (1990). *Fungi Without Gills (Hymenomycetes and Gasteromycetes) An Identification Handbook*, London: Chapman and Hall.
- Gücin F (1984). *Elazığ Yöresinde Yenebilen Doğa Mantarları ve Yurdumuz Makrofungus Florası için Yeni Kayıt Olanlar*. Türkiye III. Yemeklik Mantar Kongresi 10-12 Ekim 1984 Yalova, İstanbul.
- Hüseyinov E, Selçuk F & Aslantaş İ (2001). Some data on Agaricoid Fungi from Sivas Province (Turkey). *Mycology & Phytopathology* 35: 29-33.
- Işiloğlu M & Öder N (1995). Malatya Yöresinin Makrofungusları. *Türk J Bot* 19: 321-324.
- Işiloğlu M (1997). Macrofungi of Sarıçiçek Yaylası (Malatya). *Türk J Bot* 21: 63-65.
- Kaya A, Uzun Y, Keleş A & Demirel K (2010). Three coprinoid macrofungi taxa, new to Turkey. *Türk J Bot* 34: 351-354.
- Knudsen H & Vesterholt J (2008). *Fungi Nordica*. Nordsvamp, Copenhagen, Denmark.
- Marchand A (1971-1986). *Champignons du nord et du midi*. Vols 1-9. Perpignan: Société Mycologique des Pyrénées Méditerranéennes.
- Moser M (1983). *Keys to Agarics and Boleti*. Stuttgart: Gustav Fischer.

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- Orton PD & Watling R (1979). *British Fungus Flora Agarics and Boleti, Coprinaceae 2: Coprinus*. Edinburgh: Royal Botanic Garden.
- Orton PD (1986). *British Fungus Flora Agarics and Boleti 4: Pluteaceae, Pluteus & Volvoriella*. Edinburgh: Royal Botanic Garden.
- Pacioni G (1985). *Mushrooms and Toadstools*. MacDonald and Ltd., London.
- Phillips R (2006). *Mushrooms*. London, Pan Macmillan Ltd.
- Sesli E & Denchev CM (2010). Checklists of the Myxomycetes, Larger Ascomycetes, and larger Basidiomycetes in Turkey. *Mycotaxon* 106: 65-67 [2008].
- Solak MH, Işiloğlu M, Kalmış E & Allı H (2007). *Macrofungi of Turkey, Checklist*. İzmir: Üniversiteler ofset.
- Solak MH, Allı H, Işiloğlu M & Kalmış E (2009). Some new records of *Inocybe* (Fr.) Fr. from Turkey. *Turk J Bot* 33: 65-69.
- Watling R (1982). *British Fungus Flora. Bolbitaceae 3: Agrocybe, Bolbitius, Conocybe*, Edinburgh: Royal Botanic Garden.
- Watling R & Gregory NM (1987). *British Fungus Flora, Agaricus and Boleti 5: Strophariaceae & Coprinaceae*, Edinburgh: Royal Botanic Garden.
- Watling R & Gregory NM (1989). *British Fungus Flora. Agarics and Boleti 6: Crepidotaceae, Pleurotaceae and other pleurotoid agarics*, Edinburgh: Royal Botanic Garden.