

Macrofungi of Göksun (Kahramanmaraş) District

Abdullah KAYA^{1*}, Yusuf UZUN², İbrahim Halil KARACAN³

¹Adiyaman University, Education Faculty, 02030 Adiyaman - TURKEY

²Yüzüncü Yıl University, Science & Arts Faculty, Department of Biology, 65080 Van - TURKEY

³Emine Mustafa Humanızlı Elementary School, Şehitkamil, Gaziantep - TURKEY

Received: 16.04.2008

Accepted: 31.03.2009

Abstract: Macrofungi samples were collected from Göksun (Kahramanmaraş) district between 2005 and 2007. As a result of field and laboratory studies, 110 taxa belonging to 33 families and 70 genera in *Ascomycetes* and *Basidiomycetes* were identified. The distribution, habitat, and collection numbers of the identified species are given.

Key Words: Macrofungi, Göksun (Kahramanmaraş), Turkey

Göksun (Kahramanmaraş) Yöreni Makrofungusları

Özet: Göksun (Kahramanmaraş) sınırları içinde 2005-2007 yıllarında makrofungal örnekleri toplandı. Arazi ve laboratuvar çalışmaları sonucunda, *Ascomycetes* ve *Basidiomycetes* sınıfları içinde yer alan 33 familya ve 70 cinse ait 110 takson belirlendi. Belirlenen türlerin yayılışı, habitatı ve toplama numaralı verilmiştir.

Anahtar Sözcükler: Makromantarlar, Göksun (Kahramanmaraş) Türkiye

Introduction

Göksun is a district of Kahramanmaraş in the eastern Mediterranean region of Anatolia, located in B6 and C6 according to Davis's grid square system. It is bordered by Sarız (Kayseri) and Afşin to the north, Ekinözü and the central district of Kahramanmaraş to the east, Andırın to the south, and Tufanbeyli and Saimbeyli (Adana) to the west (Figure). According to Emberger's Formula (Akman, 1999), the climate of Göksun is Mediterranean. The annual average temperature is 8.9 °C and annual rainfall is about 601.1 mm. The research area lays mainly within the Irano-Turanian phytogeographical sector in the Holarctic floral kingdom. The forest vegetation of Göksun generally consists of coniferous forests, which are mainly represented by *Pinus nigra* J.F.Arnold subsp. *pallasiana* (Lamb.) Holmboe., *Cedrus libani* A.Rich., *Abies cilicica*

Antoine & Kotschy subsp. *cilicica*, and *Juniperus excelsa* M.Bieb.; *J. foetidissima* Willd., *J. oxycedrus* L. subsp. *oxycedrus*, and *Quercus cerris* L. are other tree populations at higher elevations of the area. In valley basins and on stream banks, *Salix* L. and *Populus* L. form the main population of trees.

The present study aimed to identify the macrofungal flora of the district and to contribute to the Turkish mycobiota.

Materials and Methods

Macrofungal specimens were collected in Göksun (Kahramanmaraş) district between 2005 and 2007. During field trips, morphological and ecological characteristics of the specimens were recorded and colour

* E-mail: akaya@adiyaman.edu.tr

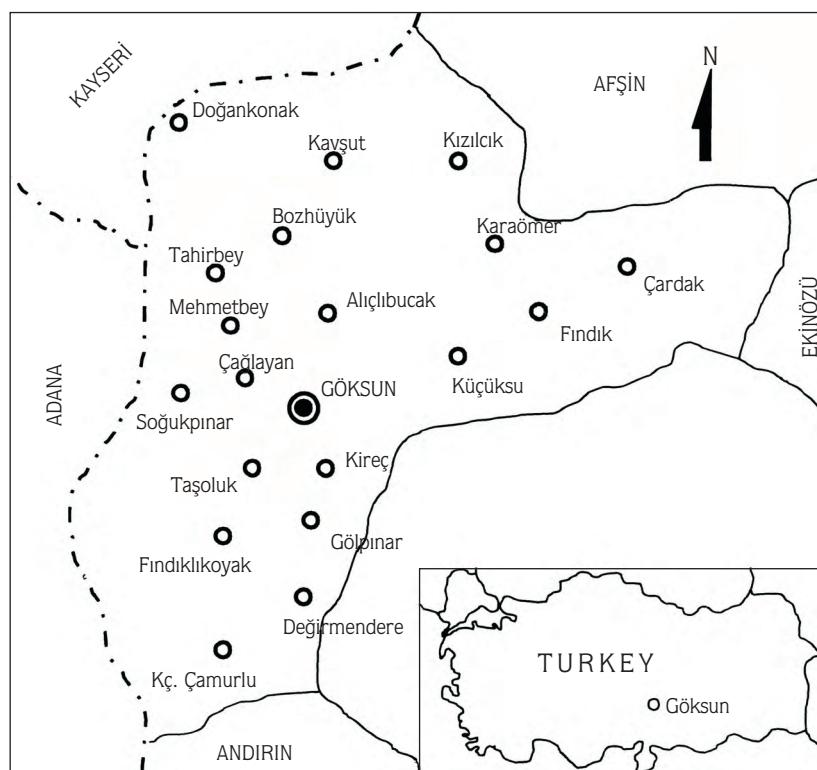


Figure. Macrofungi collection sites.

photographs of them were taken in their natural habitats. After taking the fruit bodies to the laboratory, spore prints were obtained and microscopic investigations were carried out. By using the obtained macroscopic and microscopic data, they were identified with the help of the relevant literature (Phillips, 1981; Moser, 1983; Breitenbach & Kränzlin, 1984-2005; Miller & Miller, 1988; Candusso & Lanzoni, 1990; Buczacki, 1992; Jordan, 1995; Pegler et al., 1995; Bessette et al., 1997; Antonin & Noordeloos, 1997). The specimens are kept in Adiyaman University, Education Faculty.

Results

Ascomycetes

Helotiaceae

- Hymenoscyphus epiphyllus* (Pers.) Rehm ex Kauffman

Karaömer village, 38°07'04"N, 36°39'20"E, 1406 m, on dead *Quercus* sp. twigs, 21.10.2007, K. 4725.

Helvellaceae

- Helvella acetabulum* (L.) Quél.

Fındıklıkoyak village, 37°56'34"N, 36°26'28"E, 1425 m, under *Populus* sp., 07.05.2006, K. 3733.

- Helvella lacunosa* Afzel.

Mehmetbey village, 38°05'46"N, 36°28'18"E, 1403 m, in grass, 07.05.2006, K. 3720.

- Helvella leucomelaena* (Pers.) Nannf.

Tahirbey village, 38°07'58"N, 36°26'05"E, 1615 m, in *Pinus nigra* forest, 12.05.2007, K. 4631.

- Helvella leucopus* Pers.

Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, in grass under *Populus* sp., 07.05.2006, K. 3726.

Morchellaceae

- Mitrophora semilibera* (DC.) Lév.

Mehmetbey village, 38°05'46"N, 36°28'18"E, 1403 m, in grass, 07.05.2006, K. 3719.

7. *Morchella deliciosa* Fr.
Tahirbey village, 38°07'56"N, 36°26'07"E, 1613 m, in *Pinus nigra* forest, 12.05.2007, K. 4629.
8. *Morchella elata* Fr.
Değirmendere village, 37°55'49"N, 36°28'48"E, 1428 m, in grass under *Populus* sp., 15.04.2006, K.3570.
9. *Morchella rigida* (Krombh.) Boud.
Kızılıçık village, 38°09'26"N, 36°42'45"E, 1325 m, under *Populus* sp. and willow trees, 23.04.2006, K. 3659.
- Pezizaceae
10. *Sarcosphaera crassa* (Santi) Pouzar
Soğuksınar village, 38°03'51"N, 36°25'09"E, 1675 m, in *Abies cilicica* and *Pinus nigra* forest, 07.05.2006, K. 3699.
- Pyronemataceae
11. *Caloscypha fulgens* (Pers.) Boud.
Soğuksınar village, 38°03'26"N, 36°24'34"E, 1768 m, in *Abies cilicica* forest, 07.05.2006, K. 3690.
12. *Geopora sumneriana* (Cooke) M.Torre
Soğuksınar village, 38°03'26"N, 36°24'34"E, 1768 m, in *Abies cilicica* forest, 07.05.2006, K. 3693.
- Basidiomycetes
Agaricaceae
13. *Agaricus campestris* L.
Fındıklıkojak village, 37°56'04"N, 36°25'23"E, 1674 m, in grass, 29.10.2005, K. 2891; Soğuksınar village, 38°03'45"N, 36°25'40"E, 1680 m, in *Abies cilicica* and *Pinus nigra* forest, 07.05.2006, K. 3706.
14. *Bovista plumbea* Pers.
Soğuksınar village, 38°03'53"N, 36°25'09"E, 1791 m, in *Abies cilicica* forest, 07.05.2006, K. 3704; Tahirbey village, 38°07'58"N, 36°26'07"E, 1615 m, in *Pinus nigra* forest, 12.05.2007, K. 4626.
15. *Cystoderma carcharias* (Pers.) Fayod
Fındık village, 38°03'56"N, 36°42'32"E, 1352 m, in *Pinus nigra* forest, 27.10.2007, K. 4741.
16. *Coprinus comatus* (O.F.Müll.) Pers.
Çağlayan village, 38°04'07"N, 36°27'56"E, 1381 m, in grass, 15.10.2005, K. 2797; Taşoluk village, 37°57'16"N, 36°27'34"E, 1376 m, in grass under *Salix* sp. trees, 16.10.2005, K. 2810; Soğuksınar village, 38°03'52"N, 36°25'08"E, 1792 m, in *Abies cilicica* forest, 07.05.2006, K. 3707.
17. *Cyathus olla* (Batsch) Pers.
Fındık village, 38°03'58"N, 36°42'29"E, 1351 m, in *Pinus nigra* forest, 27.10.2007, K. 4740.
18. *Lepiota castanea* Quél.
Fındıklıkojak village, 37°56'00"N, 36°25'68"E, 1562 m, on pine needle litter in *Pinus nigra* forest, 29.05.2005, K. 2898.
19. *Lepiota cristata* (Bolton) P.Kumm.
Kireç village, 37°59'40"N, 36°29'48"E, 1342 m, among leaf litter near stream, 21.10.2006, K. 3855.
20. *Leucoagaricus leucothites* (Vittad.) Wasser
Hacımırza village, 38°02'56"N, 36°20'42"E, 1376 m, in grass at edge of mixed forest, 16.10.2005, K. 2805.
21. *Lycoperdon molle* Pers.
Tahirbey village, 38°07'56"N, 36°26'06"E, 1613 m, in *Pinus nigra* forest, 12.05.2007, K.4621; Fındık village, 38°03'58"N, 36°42'29"E, 1351 m, in *Pinus nigra* forest, 27.10.2007, K. 4736.
22. *Lycoperdon perlatum* Pers.
Karaömer village, 38°07'04"N, 36°39'20"E, 1406 m, in mixed forest, 21.10.2007, K. 4726.
23. *Macrolypiota excoriata* (Schaeff.) M.M. Moser
Fındık village, 38°03'58"N, 36°42'29"E, 1351 m, in *Pinus nigra* forest, 27.10.2007, K. 4737.
- Auriscalpiaceae
24. *Lentinellus cochleatus* (Pers.) P.Karst.
Fındıklıkojak village, 37°56'04"N, 36°25'23"E, 1674 m, on dead *Pinus nigra* cones, 29.10.2005, K. 2899.
- Bankeraceae
25. *Boletopsis leucomelaena* (Pers.) Fayod
Soğuksınar village, 38°03'48"N, 36°25'07"E, 1782 m, in *Abies cilicica* forest, 22.10.2006, K. 3880.
- Bolbitiaceae
26. *Agrocybe aegerita* (V.Brig.) Singer
Karaahmet village, 38°01'24"N, 36°34'17"E, 1358 m, on *Populus* sp. remains, 14.10.2006, K. 3829.

27. *Agrocybe pediades* (Fr.) Fayod
Soğukpınar village, 38°03'49"N, 36°25'09"E, 1782 m, in grass in *Pinus nigra* forest, 07.05.2006, K. 3711.
28. *Agrocybe splendida* Clémençon
Fındıklıköyak village, 37°55'52"N, 36°26'03"E, 1474 m, in grass in *Pinus nigra* forest, 13.05.2007, K. 4649.
29. *Conocybe albipes* Hauskn.
Değirmendere village, 37°55'12"N, 36°28'21"E, 1432 m, in manured grass, 13.05.2007, K. 4661.
30. *Conocybe aporos* Kits van Wav.
Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, in grass, 21.10.2005, K. 3865.
31. *Conocybe arrhenii* (Fr.) Kits van Wav.
Kireç village, 37°59'40"N, 36°29'48"E, 1342 m, among leaf litter in stream basin, 21.10.2006, K. 3854.
32. *Panaeolus acuminatus* (Schaeff.) Quél.
Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, in grass, 07.05.2006, K. 3721.
- Cortinariaceae
33. *Cortinarius decipiens* var. *decipiens* (Pers.) Fr.
Çağlayan village, 38°04'07"N, 36°27'56"E, 1381 m, in leaf litter under *Populus* sp. trees, 07.05.2006, K. 3724.
- Entolomataceae
34. *Entoloma myrmecophilum* (Romagn.) M.M.Moser
Soğukpınar village, 38°03'26"N, 36°24'34"E, 1768 m, in *Abies cilicica* forest, 07.05.2006, K. 3694.
- Gastraceae
35. *Gastrum pectinatum* Pers.
Fındıklıköyak village, 37°56'06"N, 36°25'24"E, 1674 m, in *Pinus nigra* forest, 28.10.2007, K. 4749.
36. *Gastrum schmidelii* Vittad.
Soğukpınar village, 38°03'45"N, 36°25'40"E, 1680 m, on leaf litter in *Abies cilicica* and *Pinus nigra* forest, 22.10.2006, K. 3878.
- Gomphaceae
37. *Ramaria flava* (Schaeff.) Quél.
Soğukpınar village, 38°03'52"N, 36°25'08"E, 1792 m, in *Abies cilicica* forest, 07.05.2006, K. 3700.
- Gomphidiaceae
38. *Gomphidius maculatus* (Scop.) Fr.
Fındıklıköyak village, 37°56'05"N, 36°25'26"E, 1678, in *Pinus nigra* forest, 28.10.2007, K. 4750.
- Hygrophoraceae
39. *Hygrophorus chrysodon* (Batsch) Fr.
Soğukpınar village, 38°03'26"N, 36°24'34"E, 1768 m, in *Pinus nigra* forest, 10.11.2007, K. 4807.
- Hymenochaetaceae
40. *Inonotus hispidus* (Bull.) P.Karst.
Saraycık village, 38°01'56"N, 36°55'44"E, 1394 m, on *Malus* sp., 27.10.2007, K. 4726.
41. *Phellinus igniarius* (L.) Quél
Ortatepe village, 38°03'49"N, 36°32'09"E, 1378 m, on *Salix* sp. stump, 28.10.2007, K.4745.
- Inocybaceae
42. *Inocybe dulcamara* (Alb. & Schwein.) P.Kumm.
Kızılıcık village, 38°09'26"N, 36°42'45"E, 1325 m, 23.04.2006, K. 3660; Mehmetbey village, 38°05'43"N, 36°28'15"E, 1395 m, in grass under *Populus* sp., 07.05.2006, K. 3716; Değirmendere village, 37°55'12"N, 36°28'21"E, 1432 m, under *Populus* sp., 13.05.2007, K. 4655.
- Lyophyllaceae
43. *Calocybe gambosa* (Fr.) Donk
Tahirbey village, 38°08'10"N, 36°26'28"E, 1554 m, in grass under *Populus* sp., 12.05.2007, K. 4635.
- Marasmiaceae
44. *Armillaria mellea* (Vahl) P. Kumm.
Kızılıcık village, 38°09'18"N, 36°42'37"E, 1315 m, on *Populus* sp. remains, 21.10.2007, K. 4723.
45. *Baeospora myosura* (Fr.) Singer
Tahirbey village, 38°07'51"N, 36°26'02"E, 1610 m, in *Pinus* sp. forest, 10.11.2007, K. 4803.
46. *Flammulina velutipes* (Curtis) Singer
Gölpınar village, 37°57'57"N, 36°29'50"E, 1370 m, on remains of *Salix* sp. stump, 15.10.2007, K. 2779.
47. *Gymnopus dryophilus* (Bull.) Murrill
Tahirbey village, 38°07'59"N, 36°26'11"E, 1622 m, in *Pinus nigra* forest, 10.11.2007, K. 4805.

48. *Macrocytidia cucumis* (Pers.) Joss.

Fındık village, 38°03'55"N, 36°42'30"E, 1352 m, in *Pinus nigra* forest, 27.10.2007, K. 4738; Tahirbey village, 38°07'58"N, 36°26'09"E, 1618 m, in *Pinus nigra* forest, 10.11.2007, K. 4804.

49. *Marasmius oreades* (Bolton) Fr.

Gölpınar village, 37°57'54"N, 36°29'47"E, 1370 m, in grass under *Salix* sp. trees, 15.10.2007, K. 2785; Fındıklıkoyak village, 37°55'52"N, 36°26'03"E, 1474 m, in grass, 13.05.2007, K. 4650.

50. *Oudemansiella melanotricha* (Dörfelt) M.M.Moser

Fındıklıkoyak village, 37°56'05"N, 36°25'23"E, 1678 m, in *Pinus nigra* forest, 29.10.2005, K. 2897.

51. *Strobilurus tenacellus* (Pers.) Singer

Soğukpınar village, 38°03'52"N, 36°25'08"E, 1792 m, in *Abies cilicica* forest, 07.05.2006, K. 3698.

Meruliaceae

52. *Abortiporus biennis* (Bull.) Singer

Hacıomer village, 38°03'31"N, 36°35'32"E, 1371 m, on decaying *Populus* sp. stump, 27.10.2007, K. 4727.

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

Gölpınar village, 37°58'09"N, 36°29'41"E, 1370 m, on *Populus* sp. stump, 15.10.2007, K. 2787; Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, on *Populus* sp. stump, 21.10.2005, K. 3861.

Mycenaceae

54. *Mycena epipterygia* var. *epipterygia* (Scop.) Gray

Fındıklıkoyak village, 37°56'00"N, 36°25'49"E, 1562 m, in grass in pine forest, 29.10.2005, K. 2900.

55. *Mycena pura* (Pers.) P.Kumm.

Soğukpınar village, 38°03'26"N, 36°24'34"E, 1768 m, in *Abies* sp. and *Pinus nigra* forest, 10.11.2007, K. 4808.

56. *Xeromphalina campanella* (Batsch) Maire

Soğukpınar village, 38°03'34"N, 36°24'49"E, 1807 m, on *Pinus nigra* remains, 07.05.2006, K. 3695.

Paxillaceae

57. *Paxillus involutus* (Batsch) Fr.

Gölpınar village, 37°57'56"N, 36°29'48"E, 1370 m, in grass under *Populus* sp., 15.10.2007, K. 2773; Taşoluk I village, 37°57'16"N, 36°27'34"E, 1376 m, in grass under *Populus* sp., 16.10.2005, K. 2811; Aslanbey

village, 37°59'54"N, 36°32'15"E, 1335 m, in grass under *Populus* sp., 14.10.2006, K. 3836.

Pleurotaceae

58. *Pleurotus dryinus* (Pers.) P.Kumm.

Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, on *Populus* sp. tree, 15.10.2005, K. 2792.

59. *Pleurotus eryngii* (DC.) Gillet

Soğukpınar village, 38°03'34"N, 36°24'49"E, 1807 m, on *Ferula* sp. stem remains, 07.05.2006, K. 3697.

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

Gölpınar village, 37°57'54"N, 36°29'47"E, 1370 m, on remains of *Salix* sp. stump, 15.10.2007, K. 2775; Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, on remains of *Populus* sp. stump 15.10.2005, K. 2791; Taşoluk village, 37°56'49"N, 36°27'33"E, 1366 m, on remains of *Populus* sp. stump, 16.10.2005, K. 2816.

Pluteaceae

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

Gölpınar village, 37°58'10"N, 36°29'41"E, 1370 m, on dead *Populus* sp. branches, 15.10.2007, K. 2790; Göksun, town centre, 38°01'09"N, 36°29'26"E, 1354 m, on dead *Populus* sp. branches, 06.05.2006, K. 3684.

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

Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, on dead *Populus* sp. twigs, 21.10.2005, K. 3866.

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

Tahirbey village, 38°08'04"N, 36°26'34"E, 1550 m, in grass, 12.05.2007, K. 4634.

Polyporaceae

64. *Fomes fomentarius* (L.) J.J.Kickx

Gölpınar village, 37°57'55"N, 36°9'49"E, on *Populus* sp. stump, 15.10.2007, K. 2774; Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, on *Populus* sp. stump, 15.10.2005, K. 2795.

65. *Funalia trogii* (Berk.) Bondartsev & Singer

Gölpınar village, 37°58'09"N, 36°29'41"E, 1370 m, on remains of *Populus* sp. stump, 15.10.2007, K. 2789; Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, on remains of *Populus* sp. stump, 21.10.2005, K. 3874.

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

Taşoluk I village, 37°57'16"N, 36°27'34"E, 1376 m, on remains of *Populus* sp. stump, 16.10.2005, K. 2807.

Fındıklıkoyak village, 37°55'52"N, 36°26'03"E, 1474 m, on *Salix* sp., 13.05.2007, K.4653.

67. *Polyporus squamosus* (Huds.) Fr.

Değirmendere village, 37°55'12"N, 36°28'21"E, 1432 m, on *Salix* sp. stump, 13.05.2007, K.4660.

68. *Trametes gibbosa* (Pers.) Fr.

Küçüksu village, 38°03'21"N, 36°38'51"E, 1320 m, on remains of *Populus* sp. stump, 27.10.2007, K. 4730.

69. *Trametes pubescens* (Schumach.) Pilát

Gölpınar village, 37°57'54"N, 36°29'49"E, 1370 m, on dead *Prunus* sp. twigs, 15.10.2007, K. 2777.

70. *Trametes versicolor* (L.) Lloyd

Hacımırza village, 38°02'15"N, 36°30'30"E, 1350 m, on *Populus* sp. remains, 16.10.2005, K. 2804.

Psathyrellaceae

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

Gölpınar village, 37°57'54"N, 36°29'47"E, 1370 m, under *Populus* sp., 15.10.2007, K. 2780; Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, under *Populus* sp., 15.10.2005, K. 2793; Fındıklıkoyak village, 37°57'15"N, 36°27'32"E, 1369 m, under *Populus* sp., in grass, 07.05.2006, K. 3733; Saraycık village, 38°01'55"N, 36°55'44"E, 1394 m, in grass under *Populus* sp., 14.10.2006, K. 3824.

72. *Coprinellus ephemerus* (Bull.) Redhead, Vilgalys & Moncalvo

Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, on manured soil, 21.10.2005, K. 3859.

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

Gölpınar village, 37°57'54"N, 36°29'47"E, 1370 m, around *Salix* sp. stump, 15.10.2007, K. 2776; Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, under *Populus* sp., 15.10.2005, K. 2794; Göksun, town centre, 38°01'09"N, 36°29'26"E, 1354 m, under *Populus* sp., 06.05.2006, K. 3683; Aslanbey village, 37°59'54"N, 36°32'15"E, 1335 m, in grass under *Populus* sp., 14.10.2006, K. 3831.

74. *Coprinellus xanthothrix* (Romagn.) Vilgalys, Hopple & Jacq.Johnson

Göksun, town centre, 38°01'09"N, 36°29'26"E, 1354 m, among leaf litter under *Populus* sp., 06.05.2006, K. 3687.

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

Gölpınar village, 37°58'09"N, 36°29'41"E, 1370 m, in grass under *Populus* sp., 15.10.2007, K. 2788; Çağlayan village, 38°04'07"N, 36°27'56"E, 1381 m, under *Populus* sp., 15.10.2005, K. 2796; Taşoluk I village, 37°57'16"N, 36°27'34"E, 1376 m, under *Populus* sp., 16.10.2005, K. 2808; Göksun, town centre, 38°01'09"N, 36°29'26"E, 1354 m, under *Populus* sp., 06.05.2006, K. 3689.

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

Çağlayan village, 38°02'45"N, 36°27'42"E, 1365 m, on cow dung, 10.11.2007, K. 4813.

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

Küçüksu village, 38°03'21"N, 36°38'51"E, 1320 m, in woody debris, 27.10.2007, K. 4729.

78. *Parasola hemerobia* (Fr.) Redhead, Vilgalys & Hopple

Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, in woody debris, 21.10.2006, K. 3873.

79. *Parasola kuehneri* (Uljé & Bas) Redhead, Vilgalys & Hopple

Göksun, town centre, 38°01'09"N, 36°29'26"E, 1354 m, on moist soil under *Populus* sp., 06.05.2006, K. 3688.

80. *Psathyrella bipellis* (Quél.) A.H. Sm.

Değirmendere village, 37°55'12"N, 36°28'22"E, 1432 m, on humus rich soil under *Populus* sp., 13.05.2007, K. 4658.

81. *Psathyrella candelleana* (Fr.) Maire

Mehmetbey village, 38°05'43"N, 36°28'15"E, 1395 m, under *Populus* sp., 07.05.2006, K. 3713; Küçüksu village, 38°03'21"N, 36°38'51"E, 1320 m, on plant remains, 27.10.2007, K. 4733.

82. *Psathyrella marcescibilis* (Britzelm.) Singer

Göksun, town centre, 38°01'09"N, 36°29'26"E, 1354 m, on soil under *Populus* sp., 06.05.2006, K. 3685.

83. *Psathyrella prona* f. *cana* Kits van Wav.

Mehmetbey village, 38°05'47"N, 36°28'15"E, 1403 m, in woody debris, 21.10.2006, K. 3871.

84. *Psathyrella prona* f. *prona* (Fr.) Gillet
Kireç village, 37°59'41"N, 36°29'47"E, 1342 m, on leaf litter in stream basin, 21.10.2006, K. 3851.
85. *Psathyrella pseudogracilis* (Romagn.) M.M.Moser
Mehmetbey village, 38°05'46"N, 36°28'15"E, 1403 m, in woody debris, 21.10.2006, K. 3870.
86. *Psathyrella tephrophylla* (Romagn.) M.M.Moser
Çağlayan village, 38°02'45"N, 36°27'42"E, 1365 m, roadside, in pastures, 22.10.2006, K.3885.
- Russulaceae**
87. *Lactarius controversus* (Pers.) Pers.
Gölpınar village, 37°57'56"N, 36°29'48"E, 1368 m, in grass under *Populus* sp., 15.10.2005, K. 2770.
88. *Lactarius deliciosus* (L.) Gray
Soğukpınar village, 38°03'52"N, 36°25'10"E, 1677 m, in *Abies cilicica* and *Pinus nigra* forest, 10.11.2007, K. 4811.
89. *Russula xerampelina* (Schaeff.) Fr.
Fındıklıkojak village, 37°56'04"N, 36°25'23"E, 1674 m, in *Pinus nigra* forest, 29.10.2005, K. 2901.
- Schizophyllaceae**
90. *Schizophyllum commune* Fr.
Göksun, town centre, 38°01'38"N, 36°29'27"E, 1355 m, on *Populus* sp. stump, 15.10.2007, K. 2801.
- Stereaceae**
91. *Stereum hirsutum* (Willd.) Pers.
Gölpınar village, 37°57'54"N, 36°29'49"E, 1370 m, on *Salix* sp. stump, 15.10.2007, K. 2778.
- Strophariaceae**
92. *Galerina marginata* (Batsch) Kühner
Soğukpınar village, 38°03'52"N, 36°25'10"E, 1677 m, in *Abies* sp. and *Pinus nigra* forest, 10.11.2007, K. 4812.
93. *Hebeloma populinum* Romagn.
Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, under *Populus* sp. trees, 07.05.2006, K. 3723.
94. *Pholiota aurivella* (Batsch) P.Kumm.
Gölpınar village, 37°57'54"N, 36°29'47"E, on *Salix* sp., 15.10.2007, K. 2772; Göksun, town centre, 38°01'38"N, 36°29'27"E, 1355 m, on *Salix* sp., 15.10.2007, K. 2799; Taşoluk village, 37°57'16"E, 36°27'34"E, 1376 m, on *Salix* sp., 16.10.2005, K. 2809.
95. *Pholiota gummosa* (Lasch) Singer
Mehmetbey village, 38°05'46"N, 36°28'16"E, 1403 m, on *Populus* sp. remains, 21.10.2005, K. 3860.
96. *Pholiota tuberculosa* (Schaeff.) P.Kumm.
Gölpınar village, 37°57'56"N, 36°29'48"E, 1370 m, on *Populus* sp. remains, 15.10.2005, K. 2786; Kireç village, 37°59'40"N, 36°29'48"E, 1342 m, on *Populus* sp. remains, 21.10.2006, K. 3857.
97. *Stropharia coronilla* (Bull.) Quél.
Soğukpınar village, 38°03'52"N, 36°25'08"E, 1792 m, among grass in fir forest, 07.05.2006, K. 3709; Çağlayan village, 38°04'07"N, 36°27'56"E, 1381 m, in grass, 07.05.2006, K. 3731.
98. *Stropharia semiglobata* (Batsch) Quél.
Fındıklıkojak village, 37°55'51"N, 37°26'02"E, 1475 m, on cow dung, K. 4652.
99. *Tubaria conspersa* (Pers.) Fayod
Çağlayan village, 38°02'45"N, 36°27'42"E, 1365 m, on decaying wood remains, 22.10.2006, K. 3884.
- Suillaceae**
100. *Suillus granulatus* (L.) Roussel
Fındık village, 38°03'58"N, 36°42'29"E, 1351 m, in *Pinus nigra* forest, 27.10.2007, K. 4739.
101. *Suillus luteus* (L.) Roussel
Fındıklıkojak, 37°56'04"N, 36°25'23"E, 1674 m, in *Pinus nigra* forest, 28.10.2007, K. 4751.
- Tricholomataceae**
102. *Lepista nuda* (Bull.) Cooke
Fındık village, 38°03'55"N, 36°42'30"E, 1352 m, in *Pinus nigra* forest, 27.10.2007, K. 4735.
103. *Melanoleuca cognata* (Fr.) Konrad & Maubl.
Soğukpınar village, 38°03'26"N, 36°24'34"E, 1768 m, in *Abies cilicica* forest, 07.05.2006, K. 3691.
104. *Melanoleuca excissa* (Fr.) Singer
Soğukpınar village, 38°03'50"N, 36°25'08"E, 1783 m, in grass under *Abies cilicica* forest, 07.05.2006, K. 3712.

105. *Melanoleuca graminicola* (Velen.) Kühner & Maire

Tahirbey village, 38°07'57"N, 36°26'10"E, 1620 m, in *Pinus* sp. forest, 10.11.2007, K. 4806.

106. *Melanoleuca substrictipes* Kühn.

Soğukpınar village, 38°03'26"N, 36°24'34"E, 1768 m, in *Abies cilicica* forest, 07.05.2006, K. 3692.

107. *Tricholoma anatolicum* Doğan & Intini

Soğukpınar village, 38°03'50"N, 36°25'08"E, 1783 m, in *Abies cilicica* forest, 22.10.2006, K. 3875.

108. *Tricholoma batschii* Gulden

Fındıklıkoyak village, 37°56'04"N, 36°25'23"E, 1674 m, in *Pinus nigra* forest, 29.10.2005, K. 2893; Soğukpınar village, 38°03'45"N, 36°25'40"E, 1680 m, in *Pinus nigra* forest, 22.10.2006, K. 3882.

109. *Tricholoma myomyces* (Pers.) J.E.Lange

Fındıklıkoyak village, 37°56'04"N, 36°25'23"E, 1674 m, in *Pinus nigra* forest, 29.11.2005, K. 2896.

110. *Tricholoma populinum* J.E.Lange

Gölpınar village, 37°57'56"N, 36°29'49"E, 1370 m, on soil under *Populus* sp., 15.10.2007, K. 2771; Taşoluk II village, 37°56'51"N, 36°27'31"E, 1366 m, under *Populus* sp., 16.10.2005, K. 2812; Aslanbey village, 37°59'56"N, 36°32'14"E, 1335 m, in grass under *Populus* sp., 14.10.2006, K. 3830.

Discussion

In all, 110 macrofungi taxa belonging to 33 families and 70 genera in *Ascomycetes* and *Basidiomycetes* were identified. There have been similar studies conducted in

the neighbouring regions; İsliloğlu and Öder (1995), İsliloğlu (1997), Kaşık et al (2003), Kaya (2005), and Kaya (2006). This is the first study in Göksun district. There are some similarities between the findings of the present study and those of previous studies. *Agaricaceae*, *Tricholomataceae*, *Polyporaceae*, *Psathyrellaceae*, and *Bolbitiaceae* are usually the 5 most crowded families in all these regions. The number of identical taxa and percentages of similarity between our study and those of neighbouring regions are given in the Table. These similarities could be due to the similarities in the habitats and flora of these regions.

Among the 110 taxa, 47 are edible, but only *Agaricus campestris*, *Pleurotus eryngii*, *P. ostreatus*, *Tricholoma anatolicum*, *T. batschii*, and *T. populinum* are eaten by the local population. In all, 13.6% (15 species) of the taxa are poisonous and 45.5% (50 species) are inedible, but none are known by the local population. No incidents of poisoning were recorded in the area. Four species, *Morchella deliciosa*, *M. elata* M. *rigida*, and *T. anatolicum*, are of economic importance in the area. During spring, members of *Morchella* are collected by some villagers and sold to export companies. Likewise, the fruit bodies of *T. anatolicum* are collected during autumn for the same purpose.

Acknowledgements

We would like to thank TÜBİTAK (The Scientific and Technological Research Council of Turkey) for financially supporting this research (TBAG-104T285).

Table. Percentages of similarity reported in studies conducted in regions neighbouring Göksun district.

	Number of Identical Taxa	Total Taxa	Percentage of Similarity (%)
İşiloğlu & Öder (1995)	31	54	57.40
İşiloğlu (1997)	21	44	47.70
Kaşık et al. (2003)	44	93	47.30
Kaya et al. (2004)	39	56	69.90
Kaya (2005)	45	76	59.20
Kaya (2006)	54	131	41.20

References

- Akman Y (1999). *İklim ve Biyoiklim*. Ankara: Kariyer Matbacılık Ltd.
- Antonin V & Noordeloos ME (1997). *A Monograph of Marasmius, Collybia and Related Genera in Europe*. München: Ihw-Verlag.
- Bessette AE, Bessette AR & Fischer WD (1997). *Mushrooms of Northeastern North America*. Hong Kong: Syracuse University Press.
- Breitenbach J & Kränzlin F (1984-2005). *Fungi of Switzerland*. Luzern: Verlag Mykologia.
- Buczacki S (1992). *Mushrooms and Toadstools of Britain and Europe*. London: W Collins Sons & Co Ltd.
- Candusso M & Lanzoni G (1990). *Lepiota*. Saronno: Libreria editrice Biella Giovanna.
- İşiloğlu M & Öder N (1995). Malatya yörenesinin makrofungalıları. *Turk J Bot* 19: 321-324.
- İşiloğlu M (1997). Macrofungi of Sarıçek yaylası (Malatya). *Turk J Bot* 21: 63-65.
- Jordan M (1995). *The Encyclopedia of Fungi of Britain and Europe*. Devon: David & Charles Book Co.
- Kaşık G, ÖzTÜRK C, Türkoğlu A & Doğan H H (2003). Macrofungi of Yahyalı (Kayseri) province. *Turk J Bot* 27: 453-462.
- Kaya A (2005). Macrofungi Determined in Gölbaşı (Adiyaman) District. *Turk J Bot* 29: 45-50.
- Kaya A (2006). Macrofungi Determined in Andırın District. *Turk J Bot* 30: 85-93.
- Kaya A, Akan Z & Demirel K (2004). A Checklist of Macrofungi of Besni (Adiyaman) District. *Turk J Bot* 28: 247-251.
- Miller OK & Miller HH (1988). *Gasteromycetes*. Eureka: Mad River Press.
- Moser M (1983). *Keys to Agarics and Boleti*. Stuttgart: Gustav Fischer.
- Pegler DN, Laessoe T & Spooner BM (1995). *British Puffballs, Earthstars and Stinkhorns*. Kew: Royal Botanic Garden.
- Phillips R (1981). *Mushrooms and Other Fungi of Great Britain & Europe*. London: Pan Books.