

# Macrofungi and Their Distribution in Karaman Province, Turkey

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**Abstract:** Herein, macrofungi specimens that were collected from different locations in Karaman province, Turkey between 1999 and 2001 are reported. As a result of field and laboratory studies, 202 taxa belonging to 2 classes and 41 families were identified. Of them, 11 taxa belonged to *Ascomycetes* and 191 to *Basidiomycetes*. The most common families were *Tricholomataceae*, with 36 species; *Bolbitiaceae*, with 16 species; *Agaricaceae* and *Cortinariaceae*, with 15 species each; *Coprinaceae*, with 13 species; and *Hymenochaetaceae*, with 12 species.

**Key Words:** Macrofungi, Karaman, Turkey

## Karaman Yöresi Makrofunguslarının Dağılımı

**Özet:** Bu çalışmanın materyali 1999-2001 yıllarında Karaman yöresinden farklı lokalitelerden toplanan makromantar örneklerinden oluşmaktadır. Laboratuvar ve arazi çalışmaları sonucu iki sınıf ve 41 familyaya ait 202 takson belirlenmiştir. Bunlardan, 11 takson *Ascomycetes* ve 191 takson da *Basidiomycetes*'e aittir. En yaygın familyalar sırasıyla, 36 türle *Tricholomataceae*, 16 türle *Bolbitiaceae*, 15'er türle *Agaricaceae* ve *Cortinariaceae*, 13 türle *Coprinaceae* ve 12 türle *Hymenochaetaceae* dir.

**Anahtar Sözcükler:** Makrofunguslar, Karaman, Türkiye

## Introduction

Numerous studies of the fungi of Turkey have been conducted (Mat, 2000; Doğan et al., 2005; Sesli & Denchev, 2005). These studies have contributed to the record of macrofungi species in Turkey; however, the study of the distribution of macrofungi in Turkey has yet to be completed as there are many regions of the country that have not been studied.

To date, Kaşık et al. (2000) and Öztürk et al. (2001) conducted investigations in the region of Ermenek, in Karaman province, and identified 28 species and 60 species of macrofungi, respectively. Doğan et al. (2003) and Öztürk et al. (2003) also reported some new records from Karaman province. Nevertheless, the full extent of macrofungi distribution in Karaman province has not yet been determined. The present study, which is part of Dogan's PhD thesis, has significantly advanced the record of macrofungal distribution in the research area.

Karaman encompasses 9590 km<sup>2</sup> (Figure 1). It is bordered by Konya to the north and north-west, Mersin to the south-east, and Antalya to the south-west. Karaman has a continental climate that is warm and dry in summer, while it is cold and rainy in autumn (Akman, 1999). The vegetation of Karaman generally consists of coniferous forests, which are mainly represented by 2 species, *Pinus brutia* Ten. and *Pinus nigra* J.F.Arnold subsp. *nigra* var. *caramanica* (Loudon) R.Businsk. The highland plants consist mainly of *Cedrus libani* A.Rich., *Abies cilicica* (Ant. & Kotschy) Carr. subsp. *isaurica* Coode & Cullen, *Juniperus excelsa* M.Bieb. and *J. foetidissima* Willd. Other common plants are *Quercus cerris* L. var. *cerris*, *Q. ithaburensis* Decne subsp. *macrolepis* (Kotschy) Hedge & Yaltirik, *Q. coccifera* L., *Salix alba* L., *Populus* L. spp., *Tamarix* L. spp. and *Platanus orientalis* L.

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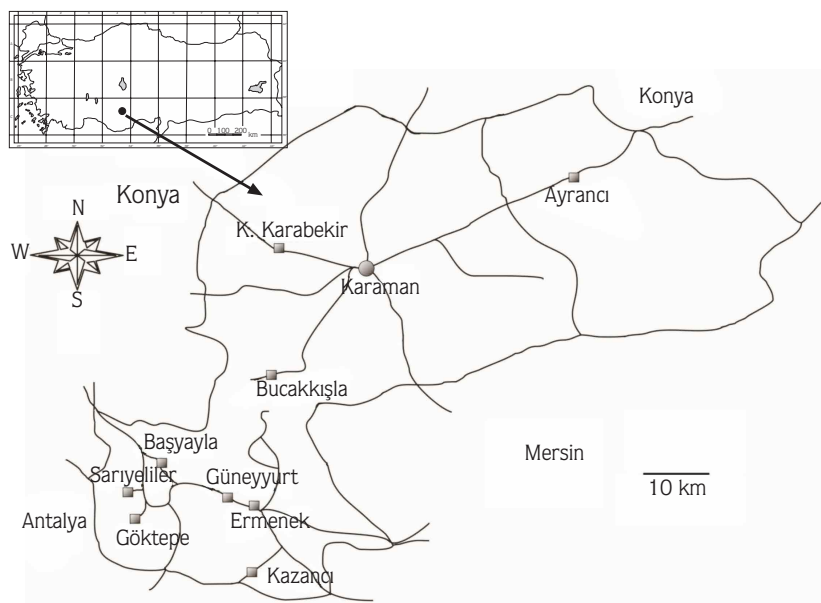


Figure 1. Map of Karaman Province.

## Materials and Methods

The search for and collection of fungal specimens was performed between 1999 and 2001. The field studies were conducted mostly in the autumn and spring, since during these periods the climatic conditions are most suitable for carpophore formation.

A microscope and reagents (Melzer's reagent, 5% KOH, cotton blue, sulphovanillin, etc.) were used for the identification of fungi. The identification of the recorded species was accomplished during the field trips, or afterwards, in the mycological laboratory. The local consumption of mushrooms and their local names were recorded by interviewing villagers about their use of fungi. Poisonous macrofungi were identified according to Bresinsky & Besl (1990). For the identification of samples, the following literature were used: Breitenbach & Kränzlin (1984-2000); Dähncke (1988 & 1993); Ellis & Ellis (1990); Gerhardt (1997); Grünert & Grünert (1984 & 1991); Hawksworth et al. (1996); Jordan (1996); Michael et al. (1983-1987); Moser (1983); Pace (1998); Pacioni (1993); Pegler (1987); Phillips (1981); Riva (1988); Smith & Smith (1996); Watling & Gregory (1989); and Watling (1973). The higher-level taxonomy is in accordance with Kirk et al. (2001). The names of authors of fungal species are abbreviated according to Kirk & Ansell (1992). After macrofungi samples were

identified and dried, they were preserved in polythene bags containing 5 g of thymol crystals.

All macrofungi samples are kept at Selçuk University, Fungarium of Mushroom Application and Research Centre, in Konya.

## Results

### Ascomycetes

#### Helotiales

##### Hyaloscyphaceae

#### 1. *Lachnellula subtilissima* (Cooke) Dennis

Bucakkışla-Bayır village, Tozlu district, on black pine branch, 1650 m, 30.04.2000, *D 526*.

#### Hypocreales

##### Nectriaceae

#### 2. *Nectria cinnabarina* (Tode) Fr.

Başayla-Katranlı Plateau, on cedar branch, 1770 m, 29.10.2000, *D 1015*.

#### Pezizales

##### Helvellaceae

#### 3. *Helvella acetabulum* (L.) Quél.

Bucakkışla-İhsaniye village, Şekerpinarı district, among poplars, 1550 m, 10.06.2000, *D 910*.

4. *Helvella queletii* Bres.

Bucakkışla-İhsaniye village, Şekerpınarı district, in black pine forest, 1550 m, 10.06.2000, *D 901*.

5. *Helvella spadicea* Schaeff.

Bucakkışla-Göksu, near the bridge among poplars, 500 m, 29.05.1999, *D 190*. Sarıveliler-Civandere, among poplar, 1450 m, 24.04.2001, *D 1157*.

## Morchellaceae

6. *Mitrophora semilibera* (DC.) Lév.

Sarıveliler-Civandere, near the bridge among poplars, 1250 m, 24.04.2001, *D 1152*.

7. *Morchella esculenta* (L.:Fr.) Pers. var. *umbrina* (Boud.) S.Imai

Sarıveliler-Civandere Kumluçukur district, in cedar forest, 1750 m, 23.04.1999, *D 172*.

## Pyronemataceae

8. *Caloscypha fulgens* (Pers.) Boud.

Sarıveliler-Civandere Kumluçukur district, in fir forest, 1700 m, 23.04.1999, *D 165*.

9. *Geopora arenicola* (Lév.) Kers

Sarıveliler-Kumluçukur district, in fir forest, 1700 m, 23.04.1999, *D 163*. Başyayla-Katranlı Plateau, in fir forest, 1700 m, 15.06.1999, *D 212*. Bucakkışla-Bayır village, Tozlu district, in black pine forest, 1600 m, 14.05.2000, *D 602*.

10. *Scutellinia scutellata* (L.) Lambotte

Bucakkışla-İhsaniye village, Şekerpınarı district, on poplar branch, 1550 m, 31.05.2000, *D 812*.

## Terfeziaceae

11. *Terfezia boudieri* Chatin

Karaman-Kılbasan village, with *Helianthemum* sp., 1250 m, 29.05.1999, *D 208*. Karaman-Mara district, with *Helianthemum* sp., 1500 m, 08.04.2001, *D 1145*.

## Basidiomycetes

## Agaricales

## Agaricaceae

12. *Agaricus arvensis* Schaeff.

Bucakkışla-İhsaniye village, Kerimpınarı district, on grass in black pine forest, 1550 m, 31.05.2000, *D 795*.

13. *Agaricus campestris* L.

Bucakkışla-Bayır village, Keklikseki district, on goat dung, 1450 m, 30.04.2000, *D 536*.

14. *Agaricus langei* (F.H.Møller & Jul.Schäff.) Maire

Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 29.10.2000, *D 1026, 1027*.

15. *Agaricus pampeanus* Speng.

Bucakkışla-Bayır village, Tozlu district, in black pine forest, 1700 m, 10.06.2000, *D 880, 947*. Bucakkışla-İhsaniye village, Köprücek district, in black pine forest, 1700 m, 10.06.2000, *D 884*.

16. *Agaricus romagnesii* Wasser

Bucakkışla-Yumrutepe district, on grass, 1150 m, 31.05.2000, *D 768*.

17. *Lepiota clypeolaria* (Bull.) Quéf.

Karaman-Kızılkaya village, on leaf remains in oak forest, 1500 m, 19.05.2000, *D 631*.

18. *Lepiota cristata* (Bolton) P.Kumm.

Bucakkışla-İhsaniye village, Şekerpınarı district, in black pine forest, 1550 m, 10.06.2000, *D 907*.

19. *Lepiota erminea* (Fr.) P.Kumm.

Karaman-Kızılkaya village, on leaf remains in oak forest, 1500 m, 19.05.2000, *D 632, 27.10.2000, D 956*. Bucakkışla-Bostanözü Yumrutepe district, on grass in black pine forest, 1250 m, 31.05.2000, *D 767*.

20. *Lepiota oreadiformis* Velen.

Karaman-Bucakkışla road, Kervangedik district, on leaf remains in oak forest, 1350 m, 13.05.2000, *D 567*. Karaman-Kızılkaya village, on leaf remains in oak forest, 1500 m, 19.05.2000, *D 631*.

21. *Leucoagaricus badhamii* (Berk. & Broome) Singer

Bucakkışla-Göksu, near the bridge, on the nutrient soil, 450 m, 27.10.2000, *D 968*.

22. *Leucoagaricus holosericeus* (Fr.) M.M.Moser

Bucakkışla-İhsaniye village, Şekerpınarı district, in black pine forest 1550 m, 31.05.2000, *D 802*. Bucakkışla-İhsaniye village, Köprücek district, on grass in black pine forest, 1650 m, 10.06.2000, *D 895*.

23. *Leucoagaricus pudicus* (Bull.) Bon

Sariveliler-Civandere near the stream, in black pine forest, 1550 m, 19.05.2000, *D 636*. Bucakkışla-İhsaniye village, Şekerpınarı district, on grass in black pine forest, 1550 m, 31.05.2000, *D 801*, 10.06.2000, *D 906*.

24. *Macrolepiota excoriata* (Schaeff.) M.M.Moser

Bucakkışla-İhsaniye village, on grass in black pine forest, 1600 m, 30.05.1999, *D 193*. Başyayla-Katranlı Plateau, on grass in cedar forest, 1700 m, 29.10.2000, *D 1025*.

25. *Macrolepiota gracilentata* (Krombh.) Wasser

Bucakkışla-İhsaniye village, on grass in black pine forest, 1700 m, 30.05.2000, *D 192*.

26. *Macrolepiota procera* (Scop.) Singer

Bucakkışla-İhsaniye village, Köprücek district, in black pine forest, 1700 m, 10.06.2000, *D 887*.

**Bolbitiaceae**

27. *Agrocybe cylindracea* (DC.) Gillet

Karaman-Pınarbaşı village, on willow trees, 1250 m, 24.11.2000, *D 1036*.

28. *Agrocybe molesta* (Lasch) Singer

Bucakkışla-İhsaniye village, Şekerpınarı district, on grass, 1550 m, 31.05.2000, *D 817*.

29. *Agrocybe paludosa* (J.E.Lange.) Kühner & Romagn.

Bucakkışla-İhsaniye village, Şekerpınarı district, on grass in black pine forest, 1550 m, 31.05.2000, *D 779*, *800*. Sariveliler-Civandere, on grass, 1500 m, 02.06.2000, *D 861*.

30. *Agrocybe pediades* (Fr.) Fayod

Bucakkışla-İhsaniye village, Şekerpınarı district, on grass in black pine forest, 1550 m, 30.04.2000, *D 518*. Bucakkışla-İhsaniye village, Gökçeseki district, on grass in black pine forest, 1650 m, 13.05.2000, *D 591*. Köprücek district, on grass in black pine forest, 1750 m, 19.05.2000, *D 653*. Bucakkışla-Kırk Yatırlar tomb, on grass, 1400 m, 31.05.2000, *D 761*.

31. *Agrocybe praecox* (Pers.) Fayod

Bucakkışla-İhsaniye village, Şekerpınarı district, among poplar, 1650 m, 30.05.1999, *D 199*, 19.05.2000, *D 677*, 31.05.2000, *D 804*, 10.6.2000, *D 891*.

32. *Agrocybe vervacti* (Fr.) Singer

Bucakkışla-İhsaniye village, Şekerpınarı district, on grass among poplars, 1550 m, 17.04.1999, *D 154*, 15.04.2000, *D 463*, 19.05.2000, *D 659*, 30.04.2000, *D 519*. Sariveliler-Civandere, on grass among willows, 1600 m, 02.06.2000, *D 859*.

33. *Conocybe rickenii* (Jul.Schäff.) Kühner

Bucakkışla-İhsaniye village, on grass in black pine forest, 1550 m, 31.05.2000, *D 789*.

34. *Hebeloma crustuliniforme* (Bull.) Quél.

Bucakkışla-İhsaniye village, Şekerpınarı district, on plant remains, 1550 m, 10.06.2000, *D 914*.

35. *Hebeloma mesophaeum* (Pers.) Fr.

Bucakkışla-Gökçepınar Tozlu Terası, on needle litter in black pine forest, 1500 m, 13.05.2000, *D 584*, *586*, *606*. Bucakkışla-İhsaniye village, Köprücek district, on needle litter in black pine forest, 1750 m, 19.05.2000, *D 652,686*, 31.05.2000, *D 783*. Bucakkışla-İhsaniye village, Şekerpınarı district, in black pine forest, 1550 m, 27.10.2000, *D 977*. Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 02.06.2000, *D 845*.

36. *Panaeolus ater* (J.E.Lange) Kühner & Romagn.

Sariveliler-Civandere Kumluçukur district, on grass in black pine forest, 1700, 22.11.1998, *D 47*. Bucakkışla-İhsaniye village, Şekerpınarı district, on grass, 1550 m, 17.04.1999, *D 149*. Bucakkışla-İhsaniye village, Gökçeseki district, on grass in black pine forest, 1600, 13.05.2000, *D 589*.

37. *Panaeolus fimicola* (Pers.) Gillet

Bucakkışla-Bostanözü village, on grass, 550 m, 31.10.1998, *D 28*. Bucakkışla-Yumrutepe district, on grass in black pine forest, 1250 m, 31.05.2000, *D 765*.

38. *Panaeolus olivaceus* F.H.Møller

Sariveliler-Civandere, near the stream on plant remains, 1450 m, 02.06.2000, *D 847*.

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

Karaman-Bucakkışla, near the first bridge on the way, on manure, 1000 m, 13.05.2000, *D 564*.

40. *Panaeolus semiovatus* (Sowerby) S.Lundell & Nannf.

Bucakkışla-Kerimpınarı district, on donkey manure, 1650 m, 31.05.2000, *D 792*.

41. *Panaeolus sphinctrinus* (Fr.) Quél.

Bucakkışla-Bostanözü village, on grass, 550 m, 31.10.1998, *D 29*; 22.04.2000, *D 476*. Bucakkışla-Bayır village, Tozlu district, on grass, 1600 m, 10.06.2000, *D 880*. Köprücek district, on grass, 1700 m, 10.06.2000, *D 883*.

42. *Panaeolus subbalteatus* (Berk. & Broome) Sacc.

Bucakkışla-Bayır village, Keklikseki district, on grass, 1550 m, 30.04.2000, *D 537*. İhsaniye village, Şekerpınarı district, on grass, 1550 m, 31.05.2000, *D 815*.

**Coprinaceae**

43. *Coprinus atramentarius* (Bull.) Fr.

Bucakkışla-Göksu, on leaf remains, 450 m, 31.10.1998, *D 03*. Sarıveliler-between Civandere Civler, near the stream, 1250 m, 29.04.2000, *D 513*. Karaman-Pınarbaşı village, near the stream, 1550 m, 27.10.2000, *D 963*.

44. *Coprinus auricomus* Pat.

Bucakkışla-Yumrutepe district, on leaf remains of poplar trees, 1250 m, 31.10.1998, *D 15*. Bucakkışla-near the Göksu River, on leaf remains of willow trees, 450 m, 19.05.2000, *D 641*. Karaman-Pınarbaşı village entrance, near the stream, on leaf remains of poplar trees, 1250 m, 24.11.2000, *D 1035*.

45. *Coprinus comatus* (O.F.Müll.) Gray

Sarıveliler-Civandere village, near the bridge, on soil, 1550 m, 27.10.1999, *D 225*. Bucakkışla-Düzler village, on soil, 1000 m, 13.05.2000, *D 565*. Bucakkışla, on the way to Gökçeşepinar Road, on soil, 1550 m, 13.05.2000, *D 582*.

46. *Coprinus disseminatus* (Pers.) Gray

Bucakkışla-İhsaniye village, Selaldım Stream, on poplar stump, 1500 m, 29.05.1999, *D 195*. Sarıveliler-between Civandere and Civler roads, on poplar stump, 1600 m, 28.04.2000, *D 514*. Bucakkışla-near the Göksu River, on poplar stump, 450 m, 13.05.2000, *D 570*. Karaman-Pınarbaşı village, near the stream, on poplar stump, 1550 m, 27.10.2000, *D 960*.

47. *Coprinus domesticus* (Bolton) Gray

Bucakkışla, near the Göksu River, on poplar remains, 450 m, 13.05.2000, *D 573*.

48. *Coprinus micaceus* (Bull.) Fr.

Bucakkışla, near the Göksu River, on poplar stump, 450 m, 19.05.2000, *D 645*. İhsaniye village, Tozlu district, on willow stump, 1650 m, 31.05.2000, *D 781*. Sarıveliler-Civandere, near the stream on poplar stump, 1450 m, 02.05.2000, *D 851*. Karaman-Pınarbaşı village, on willow remains, 1550 m, 27.10.2000, *D 962*.

49. *Coprinus niveus* (Pers.) Fr.

Karaman-Bayır village, Keklikseki district, on goat manure, 1450 m, 30.04.2000, *D 535*.

50. *Coprinus plicatilis* (Curtis) Fr.

Bucakkışla-Nunu district, near the Göksu River on grass, 500 m, 31.10.1998, *D 22*. Bucakkışla-İhsaniye village, Şekerpınarı district, on grass, 1550 m, 30.05.1999, *D 201, 202*.

51. *Coprinus sterquilinus* (Fr.) Fr.

Bucakkışla-Bostanözü village, Yumrutepe district, on grass, 1250 m, 18.04.1999, *D 162*.

52. *Psathyrella artemisiae* (Pass.) Konrad & Maubl. var. *artemisiae*

Bucakkışla-İhsaniye village, Şekerpınarı district, near the stream on grass, 1550 m, 30.05.1999, *D 203*.

53. *Psathyrella candolleana* (Fr.) Maire

Bucakkışla-Bostanözü village, on grass, 500 m, 31.10.1998, *D 24, 26, 27*. Sarıveliler-Civandere, near the bridge on plant remains, 1250 m, 22.11.1998, *D 33*. İhsaniye village, Kerimpınarı district, near the stream on plant remains, 1650 m, 17.04.1999, *D 159, 30.05.1999, D 206*. İhsaniye village, Kalaba Plateau, near the stream on plant remains, 1500 m, 30.05.1999, *D 191*. Göksu, near the bridge on grass, 450 m, 19.05.2000, *D 647*. İhsaniye village, Şekerpınarı district, 1650 m, 19.05.2000, *D 660, 10.06.2000, D 898*.

54. *Psathyrella spadicea* (Schaeff.) Singer

Bucakkışla-İhsaniye village, Şekerpınarı district, on poplar remains, 1550 m, 17.04.1999, *D 154, 156*.

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

Bucakkışla-İhsaniye village, Şekerpınarı district, near the stream on plant remains, 17.04.1999, *D 151, 16.04.*

2000, *D 462*. Sarıveliler-Civandere, Kumluçukur district, on plant remains, 1650 m, 23.04.1999, *D 171*. Karaman-Düzler village, near the bridge on plant remains, 1000 m, 13.05.2000, *D 566*. Bucakkışla-Göksu, near the bridge on plant remains, 450 m, 13.05.2000, *D 568*. Bucakkışla-Bayır village, Tozlu district, on grass, 1300 m, 13.05.2000, *D 581*.

#### Cortinariaceae

##### 56. *Cortinarius elegantior* (Fr.) Fr.

Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 50, 67*, 29.10.2000, *D 1006*.

##### 57. *Cortinarius psittacinus* M.M.Moser

Başyayla-Katranlı Plateau, in mixed oak and black pine forest, 1700 m, 30.10.1999, *D 228*. Sarıveliler-Civandere, in black pine forest, 1550 m, 02.06.2000, *D 848*.

##### 58. *Cortinarius splendens* Rob. Henry subsp. *meinhardii* (Bon) Brandrud & Melot

Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 61*, 28.10.2000, *D 983*.

##### 59. *Cortinarius subvalidus* Rob. Henry

Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 60*, 26.11.2000, *D 1053*.

##### 60. *Cortinarius sulphurinus* Qué.

Sarıveliler-Civandere village, Kumluçukur district, in pine forest, 1700 m, 22.11.1998, *D 38*. Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 78*.

##### 61. *Galerina clavata* (Velen.) Kühner

Bucakkışla, near the Göksu River in pine forest, 500 m, 31.10.1998, *D 04*.

##### 62. *Galerina marginata* (Batsch) Kühner

Bucakkışla-İhsaniye village, Şekerpınarı district, on black pine stump, 1550 m, 16.04.2000, *D 464*.

##### 63. *Inocybe abietis* Kühner

Bucakkışla-Bayır village, Tozlu district, in mixed black pine and cedar forest, 1600 m, 14.05.2000, *D 605*. Karaman-Kızılkaya village, in oak forest, 1500 m, 19.05.2000, *D 637*.

##### 64. *Inocybe dulcamara* (Alb. & Schwein.) P.Kumm.

Bucakkışla-Göksu, near the bridge among willows,

1500 m, 29.05.1999, *D 189*. Bucakkışla-İhsaniye village, Şekerpınarı district, in black pine forest, 1500 m, 30.05.1999, *D 198*, 31.05.2000, *D 803*, 10.06.2000, *D 905*. Bucakkışla-Göksu, near the bridge among willows, 500 m, 19.05.2000, *D 649*. Bucakkışla-Bayır village, Tozlu district, in black pine forest, 1600 m, 19.05.2000, *D 687*. Sarıveliler-Civandere near the stream among willows, 1450 m, 02.06.2000, *D 866*.

##### 65. *Inocybe fuscomarginata* Kühner

Bucakkışla-Bayır village, Tozlu Terası, in black pine forest, 1500 m, 13.05.2000, *D 588*.

##### 66. *Inocybe lacera* (Fr.) P.Kumm.

Bucakkışla-Gökçepınar Tozlu Terası, in black pine forest, 1500 m, 13.05.2000, *D 585*. Bucakkışla-Yumrutepe district, in black pine forest, 1150 m, 31.05.2000, *D 769*.

##### 67. *Inocybe muricellata* Bres.

Bucakkışla-İhsaniye village, Köprücek district, in cedar forest, 1700 m, 19.05.2000, *D 673, 682*.

##### 68. *Inocybe queletii* Konrad

Bucakkışla-İhsaniye village, Şekerpınarı district, in black pine forest, 1600 m, 10.06.2000, *D 893*.

##### 69. *Inocybe rimosa* (Bull.) P.Kumm.

Bucakkışla-Bayır village, Tozlu district, in cedar and black pine forest 1600 m, 14.05.2000, *D 601*.

##### 70. *Tubaria hiemalis* Romagn. ex Bon

Başyayla-Katranlı Plateau, on cedar tree remains, 1700 m, 05.12.1998, *D 76*. Bucakkışla-İhsaniye village, Şekerpınarı district, on plant remains, 1600 m, 14.11.1999, *D 310, 313*, 27.10.2000, *D 978*. Bucakkışla-İhsaniye village, Kerimpınarı district, on plant remains, 24.11.2000, *D 1044*.

#### Entolomataceae

##### 71. *Entoloma cetratum* (Fr.) M.M.Moser

Bucakkışla-İhsaniye village, Köprücek district, on grass in black pine forest, 1700 m, 10.06.2000, *D 900*.

##### 72. *Entoloma saepium* (Noulet & Dass.) Richon & Roze

Sarıveliler-Civandere village, among poplar trees, 1500 m, 02.06.2000, *D 856*. Bucakkışla-İhsaniye village, Şekerpınarı district, among willow trees, 1550 m, 10.06.2000, *D 886*.

73. *Entoloma sinuatum* (Bull.) P.Kumm.

Bucakkışla-Şekerpınarı district, among willow and poplar trees in black pine forest, 1650 m, 19.05.2000, *D 664*. Bucakkışla Köprücek district, in black pine forest, 1700 m, 10.06.2000, *D 885*.

## Lycoperdaceae

74. *Bovista plumbea* Pers.

Bucakkışla-Yumrutepe district, on grass in black pine forest, 1150 m, 31.05.2000, *D 774*. Bucakkışla-Köprücek district, on grass in black pine forest, 1700 m, 10.06.2000, *D 888*.

75. *Handkea utrififormis* (Bull.) Pers.

Bucakkışla-Bostanözü village, on grass, 500 m, 31.10.1998, *D 23*. Bucakkışla-Bayır village, Tozlu district, on grass in black pine forest, 1600 m, 19.05.2000, *D 683*.

76. *Langermannia gigantea* (Batsch) Rostk.

Karaman-Ayrancı, on grass in *Juniper* forest, 1250 m, 22.06.2000, *D 948*.

77. *Lycoperdon lividum* Pers.

Bucakkışla-Bayır village, Kerimpınarı district, in black pine forest, 1550 m, 30.04.2000, *D 528*. Tozlu district, in black pine forest, 1550 m, 31.05.2000, *D 794*.

78. *Lycoperdon nigrescens* Wahlenb.

Bucakkışla-İhsaniye village Köprücek district, in black pine forest, 1750 m, 19.05.2000, *D 671*.

79. *Lycoperdon perlatum* Pers.

Sariveliler, in cedar forest, 1550 m, 15.05.2000, *D 627*. Bucakkışla-Bostanözü village, Yumrutepe district, in black pine forest, 1150 m, 31.05.2000, *D 772, 778*.

80. *Lycoperdon umbrinum* Pers.

Bucakkışla-Bostanözü Yumrutepe district, in black pine forest, 1100 m, 13.05.2000, *D 579*.

81. *Vascellum pratense* (Pers.) Kreisel

Bucakkışla-Bostanözü village, in black pine forest, 550 m, 31.10.1998, *D 06*.

## Marasmiaceae

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

Sariveliler, near the stream on walnut trees, 1250 m, 22.11.1998, *D 30*.

83. *Micromphale foetidum* (Sowerby) Singer

Başyayla-Katranlı district, on cedar branch, 1750 m, 01.06.2000, *D 826*.

84. *Strobilurus stephanocystis* (Kühner & Romagn. ex Hora) Singer

Bucakkışla-İhsaniye village, Şekerpınarı district, on black and red pine cones, 1550 m, 17.04.1999, *D 148*, 15.04.2000, *D 461*, 30.04.2000, *D 534*. Kerimpınarı district, on black pine cone, 17.04.1999, *D 142*.

85. *Xerula longipes* (P.Kumm.) Maire

Başyayla-Katranlı Plateau, in fir forest, 1750 m, 05.12.1998, *D 80*.

86. *Xerula melanotricha* Dörfelt

Sariveliler-Civandere, Kumluçukur district, in fir forest, 1700 m, 22.11.1998, *D 36*. Başyayla-Katranlı Plateau, in fir forest, 1700 m, 12.11.1999, *D 284*, 29.10.2000, *D 1024*.

## Pleurotaceae

87. *Hohenbuehelia atrocoerulea* (Fr.) Singer

Bucakkışla-Köprücek district, in black pine forest, 1750 m, 19.05.2000, *D 674*.

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

Bucakkışla-İhsaniye village, Şekerpınarı district, on poplar, 1550 m, 30.05.1999, *D 204*; 14.11.1999, *D 311*; 30.04.2000, *D 523*; 27.10.2000, *D 979*; 24.11.2000, *D 1042*. Sariveliler-between Civandere and Civler, near the bridge on willow, 1550 m, 08.11.1999, *D 277, 278*.

89. *Pleurotus pulmonarius* (Fr.) Quél.

Bucakkışla-İhsaniye village, Şekerpınarı district, on willow, 1550 m, 17.04.1999, *D 155*; 30.04.2000, *D 522*.

## Pluteaceae

90. *Amanita alba* Pers.

Bucakkışla-Köprücek district, in black pine forest, 1700 m, 10.06.2000, *D 894*.

91. *Amanita ovoidea* (Bull.) Link

Bucakkışla-Tozlu district, in black pine forest, 1650 m, 19.05.2000, *D 690*.

92. *Pluteus romelli* (Britzelm.) Lapl.

Bucakkışla-Nunu district, on poplar and willow

branches, 500 m, 31.10.1998, *D 17*. Bucakkışla-Göksu, near the bridge on poplar branch, 450 m, 13.05.2000, *D 576*.

93. *Pluteus satur* Kühner & Romagn.

Bucakkışla-Sariveliler village, Kazdibi district, on black pine stump, 1500 m, 13.05.2000, *D 580*.

94. *Volvariella media* (Schumach.) Singer

Bucakkışla-Göksu, near the bridge on grass among willow and poplar trees, 500 m, 27.10.2000, *D 966*.

**Schizophyllaceae**

95. *Schizophyllum commune* Fr.

Bucakkışla-Şeytan Deresi district, on black pine stump, 1700 m, 31.10.1998, *D 07*. Bucakkışla-Bostanözü Yumrutepe district, on black pine stump, 1250 m, 22.04.2000, *D 472*. Bucakkışla-Göksu, near the bridge on black pine stump, 450 m, 12.05.2000, *D 644*, 24.11.2000, *D 1039*.

**Strophariaceae**

96. *Hypholoma fasciculare* (Huds.) Quél.

Bucakkışla-İhsaniye village, Şekerpinarı district, on poplar trees, 1550 m, 19.05.2000, *D 676*, 31.05.2000, *D 797*. Karaman-Pınarbaşı village, near the stream on poplar trees, 1550 m, 27.10.2000, *D 957*, 24.11.2000, *D 1031*, *1033*.

97. *Pholiota conissans* (J.Favre) M.M.Moser

Bucakkışla-İhsaniye village, Şekerpinarı district, on poplar stump, 1550 m, 10.06.2000, *D 913*.

98. *Pholiota gummosa* (Lasch) Singer

Bucakkışla-İhsaniye village, Şekerpinarı, on poplar trees in black pine forest, 1550 m, 14.11.1999, *D 309*.

99. *Pholiota spumosa* (Fr.) Singer

Bucakkışla-İhsaniye village, Tozlu district, under *Juniper* tree, 1550 m, 31.05.2000, *D 779*.

100. *Pholiota squarrosa* (Weigel) P.Kumm.

Bucakkışla-İhsaniye village, in black pine forest, 1500 m, 13.05.2000, *D 592*. Bucakkışla-İhsaniye village, Şekerpinarı district, 1600 m, 10.06.2000, *D 912*.

101. *Pholiota tuberculosa* (Schaeff.) P.Kumm.

Sariveliler-Civandere Civler near the bridge on willow, 1600 m, 29.04.2000, *D 515*. Bucakkışla-Göksu, near the bridge on willow, 500 m, 27.10.2000, *D 969*.

102. *Stropharia aeruginosa* (Curtis) Quél.

Sariveliler, in black pine forest, 1550 m, 15.05.2000, *D 628*.

103. *Stropharia coronilla* (Bull.) Fr.

Bucakkışla-Bostanözü village, Yumrutepe district, on grass, 1250 m, 13.05.2000, *D 577*. Bucakkışla-İhsaniye village, Kerimpınarı district, on grass, 1550 m, 31.05.2000, *D 793*.

104. *Stropharia semiglobata* (Batsch) Quél.

Bucakkışla-İhsaniye village, in garden on donkey dung, 1600 m, 30.05.1999, *D 208*. Bucakkışla-İhsaniye village, Köprücek district, on grass, 1700 m, 10.06.2000, *D 882*.

**Tricholomataceae**

105. *Clitocybe bresadoliana* Singer

Bucakkışla-Bayır village, Tozlu district, on meadow in black pine forest, 1550 m, 31.05.2000, *D 784*.

106. *Clitocybe clavipes* (Pers.) P.Kumm.

Bucakkışla-İhsaniye village, Köprücek district, in black pine forest, 1750 m, 19.05.2000, *D 661*, *679*; 10.06.2000, *D 889*.

107. *Clitocybe dryadicola* (J.Favre) Harmaja

Sariveliler-Civandere, near the stream among poplars, 1450 m, 02.06.2000, *D 863*.

108. *Collybia cookei* (Bres.) J.D.Arnold

Karaman-Kızılkaya village, on oak remains, 1500 m, 19.05.2000, *D 639*.

109. *Gymnopus dryophilus* (Bull.) Murrill

Karaman-Kızılkaya village, on oak remains, 1500 m, 19.05.2000, *D 633*. Karaman-Bucakkışla in Kırkyatırlar Tomb, on oak remains, 1250 m, 31.05.2000, *D 762*. Sariveliler, in oak forest, 1250 m, 02.06.2000, *D 858*. Bucakkışla-İhsaniye village, Şekerpinarı district, in black pine forest 1550 m, 10.06.2000, *D 911*.

110. *Gymnopus fusipes* (Bull.) Gray

Karaman-Kızılkaya village, in oak forest, 1500 m, 19.05.2000, *D 634*.

111. *Gymnopus hariolorum* (Bull.) Antonin, Halling & Noordel.

Bucakkışla-Yumrutepe district, in mixed red pine and oak forest, 700 m, 31.05.2000, *D 775*.



112. *Hygrophorus marzuolus* (Fr.) Bres.  
Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 66*.
113. *Lepista nuda* (Bull.) Cooke  
Başyayla-Katranlı Plateau, on meadows in cedar forest, 1700 m, 05.12.1998, *D 62*.
114. *Melanoleuca cognata* (Fr.) Konrad & Maubl. var. *cognata* Kühner  
Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 15.05.2000, *D 617*.
115. *Melanoleuca excissa* (Fr.) Singer  
Sariveliler-Civandere, Kumluçukur district, in black pine forest, 1700 m, 23.04.1999, *D 167*. Bucakkışla-İhsaniye village, Köprücek district, in black pine forest, 1700 m, 19.05.2000, *D 669*; 10.06.2000, *D 892*. Şekerpinarı district, in black pine forest, 1550 m, 31.05.2000, *D 813*. Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 02.06.2000, *D 844*.
116. *Melanoleuca humilis* (Pers.) Pat.  
Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 56*, 15.05.2000, *D 615*, 29.10.2000, *D 1005*.
117. *Melanoleuca langei* (Boekhout) Bon  
Bucakkışla-İhsaniye village, Tozlu district, on meadow, 1650 m, 17.04.1999, *D 147*.
118. *Melanoleuca luteosperma* (Britzelm.) Singer  
Sariveliler-Civandere, Kumluçukur district, in mixed fir and cedar forest, 1700 m, 23.04.1999, *D 174*.
119. *Melanoleuca melaleuca* (Pers.) Murrill  
Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 51*, 15.05.2000, *D 615*.
120. *Melanoleuca paedida* (Fr.) Kühner & Maire  
Başyayla-Katranlı Plateau, in cedar forest, 1750 m, 05.12.1998, *D 57*.
121. *Melanoleuca polioleuca* (Fr.) G.Moreno  
Sariveliler-Civandere, Kumluçukur district, in cedar forest, 1700 m, 23.04.1999, *D 164*. Bucakkışla-İhsaniye village, Köprücek district, in black pine forest, 1750 m, 19.05.2000, *D 672*.
122. *Melanoleuca schumacheri* (Fr.) Singer  
Bucakkışla-İhsaniye village, Kerimpınarı district, on meadow in black pine forest, 1700 m, 17.04.1999, *D 145, 146*.
123. *Melanoleuca stridula* (Fr.) Singer  
Sariveliler-Kumluçukur district, in black pine forest, 1700 m, 23.04.1999, *D 166*. Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 29.04.2000, *D 510*.
124. *Melanoleuca subalpina* (Britzelm.) Bresinsky & Stangl  
Bucakkışla-İhsaniye village, Kerimpınarı district, in black pine forest, 1550 m, 15.04.2000, *D 468*, 30.05.2000, *D 529*.
125. *Melanoleuca substrictipes* Kühner  
Bucakkışla-İhsaniye village, Kerimpınarı district, on meadow in black pine forest, 1500 m, 17.04.1999, *D 143, 144*, 30.04.2000, *D 530*, 31.05.2000, *D 791*. Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 29.04.2000, *D 511*. Bucakkışla-Bayır village, Tozlu district, in black pine forest, 1700 m, 10.06.2000, *D 877*.
126. *Mycena metata* (Secr. ex Fr.) Quél.  
Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 68*.
127. *Mycena silvae-nigrae* Maas Geest. & Schwöbel  
Başyayla-Katranlı Plateau, on cedar remains, 1700 m, 05.12.1998, *D 58, 68, 70*.
128. *Omphalina oniscus* (Fr.) Quél.  
Başyayla-Katranlı Plateau, in cedar forest, 1450 m, 05.12.1998, *D 65*.
129. *Tricholoma album* (Schaeff.) P.Kumm.  
Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 63*.
130. *Tricholoma equestre* (L.) P.Kumm.  
Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 29.10.2000, *D 1008*.
131. *Tricholoma imbricatum* (Fr.) P.Kumm.  
Bucakkışla-İhsaniye village, Köprücek district, in black pine forest, 1650 m, 31.05.2000, *D 816*.
132. *Tricholoma orirubens* Quél.  
Başyayla-Katranlı Plateau, Kum Ocağı district, in cedar forest, 1700 m, 30.10.1999, *D 238*. Bucakkışla-İhsaniye village, Şekerpinarı district, in black pine forest, 1600 m, 19.05.2000, *D 688*.

133. *Tricholoma populinum* J.E.Lange

Bucakkışla-İhsaniye village, Şekerpınarı district, among poplar in black pine forest, 1550 m, 24.11.2000, *D 1041*.

134. *Tricholoma pardalotum* Herink & Kotl.

Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 72*.

135. *Tricholoma portentosum* (Fr.) Quél.

Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 29.10.2000, *D 1002*.

136. *Tricholoma scalpturatum* (Fr.) Quél.

Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 71*; 29.10.2000, *D 1003*, 26.11.2000, *D 1062*. Sariveliler, in oak forest, 1550 m, 02.06.2000, *D 857*.

137. *Tricholoma stans* (Fr.) Sacc.

Sariveliler-Civandere, Kumluçukur district, in mixed cedar and black pine forest, 1650 m, 22.11.1998, *D 37*.

138. *Tricholoma terreum* (Schaeff.) Quél.

Bucakkışla-İhsaniye village, Şekerpınarı district, in black pine forest, 1550 m, 30.04.2000, *D 532*. Gökçepınar Tozlu Terası, in black pine forest, 1500 m, 13.05.2000, *D 583*. Köprücek, in black pine forest, 1750 m, 19.05.2000, *D 654, 655*; 19.05.2000, *D 684*. Tozlu district, in black pine forest 1650 m, 10.06.2000, *D 881*.

139. *Tricholoma virgatum* (Fr.) P.Kumm.

Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 59*. Bucakkışla-Bayır village, Tozlu district, in black pine forest, 1600 m, 14.05.2000, *D 610*.

140. *Xeromphalina campanella* (Batsch) Maire

Bucakkışla-İhsaniye village, Köprücek district, on black pine remains, 1700 m, 10.06.2000, *D 899*.

**Tulostomataceae**

141. *Tulostoma fimbriatum* Fr.

Sariveliler-Civandere, Kumluçukur district, in cedar forest, 1700 m, 23.04.1999, *D 170*. Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 29.04.2000, *D 511*, 26.11.2000, *D 1067*.

**Boletales**

**Boletaceae**

142. *Boletus chrysenteron* Bull.

Sariveliler-Civandere, in black pine forest, 1550 m, 02.06.2000, *D 860*.

143. *Boletus queletii* Schulzer

Sariveliler-Civandere, in black pine forest, 1700 m, 02.06.2000, *D 854, 855*.

144. *Boletus impolitus* Fr.

Sariveliler-Civandere, in oak forest, 1550 m, 02.06.2000, *D 853*

145. *Boletus pulverulentus* Opat.

Karaman-Kızılkaya village, in oak forest, 1500 m, 19.05.2000 *D 635*. Bucakkışla-Bayır village, Tozlu district, in mixed oak and black pine forest, 1650 m, 19.05.2000, *D 689*.

146. *Boletus subtomentosus* L.

Bucakkışla-Bayır village, Kazıklı Mezar district, in black pine forest, 1500 m, 10.06.2000, *D 868*.

**Gomphidiaceae**

147. *Chroogomphus rutilus* (Schaeff.) O.K.Mill.

Bucakkışla-İhsaniye village, Köprücek district, in black pine forest, 1700 m, 19.05.2000, *D 658, 662*. Bucakkışla-Bostanözü, Yumrutepe district, in black pine forest, 1150 m, 31.05.2000, *D 766*. Bucakkışla-İhsaniye village, Şekerpınarı district, in black pine forest, 1550 m, 10.06.2000, *D 890*.

**Paxillaceae**

148. *Paxillus involutus* (Batsch) Fr.

Bucakkışla-İhsaniye village, Şekerpınarı district, near the stream in black pine forest, 1550 m, 27.10.2000, *D 976*, 24.11.2000, *D 1040*.

**Rhizopogonaceae**

149. *Rhizopogon roseolus* (Corda) Th.Fr.

Bucakkışla-Bostanözü, Yumrutepe district, in black pine forest, 1250 m, 22.04.2000, *D 477*.

**Sclerodermataceae**

150. *Astraeus hygrometricus* (Pers.) Morgan

Bucakkışla-İhsaniye village, Köprücek district, in black pine forest, 1700 m, 31.10.1998, *D 08*.

## Suillaceae

151. *Suillus granulatus* (L.) Snell

Bucakkışla-Bayır village, Keklikpınarı district, in black pine forest, 1550 m, 30.04.2000, *D 531*. Bucakkışla-İhsaniye village, Köprücek district, in black pine forest, 1750 m, 14.05.2000, *D 600*.

152. *Suillus grevillei* (Klotzsch) Singer

Bucakkışla-Bayır village, Tozlu district, in black pine forest, 1600 m, 14.05.2000, *D 604*.

153. *Suillus luteus* (L.) Gray

Bucakkışla-Bayır village, Keklikpınarı district, in black pine forest, 1550 m, 30.04.2000, *D 524*. Bucakkışla-İhsaniye village, Kazdibi district, in black pine forest, 13.05.2000, *D 578*. Bucakkışla-Bayır village, Tozlu district, in black pine forest, 1600 m, 13.05.2000, *D 603*.

## Dacrymycetales

## Dacrymycetaceae

154. *Dacrymyces variisporus* McNabb

Başyayla-Katranlı Plateau, on fir branch, 1700 m, 23.10.1999, *D 222*. Bucakkışla-İhsaniye village, Şekerpınarı district, on black pine branch, 1550 m, 30.04.200, *D 527*.

## Hymenochaetales

## Hymenochaetaceae

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

Sariveliler, on walnut tree, 1600 m, 22.11.1998, *D 32*.

156. *Inonotus radiatus* (Sowerby) P.Karst.

Sariveliler-Civandere, Kumluçukur district, on cedar, 1700 m, 22.11.1998, *D 35*.

157. *Inonotus rheades* (Pers.) Bondartsev & Singer

Karaman-Pınarbaşı village, on poplar, 1250 m, 27.10.2000, *D 958*; 24.11.2000, *D 1030*.

158. *Inonotus tamaricis* (Pat.) Maire

Karaman-Bucakkışla, Near the Göksu River, on *Tamarix* sp., 500 m, 29.05.1999, *D 188*.

159. *Phellinus hartigii* (Allesh. & Schnabl) Pat.

Bucakkışla-İhsaniye village, Köprücek district, on poplar, 1700 m, 31.10.1998, *D 10*, 17.04.1999, *D 150*.

160. *Phellinus igniarius* (L.) Quél.

Bucakkışla-İhsaniye village, Şekerpınarı district, on poplar, 1550 m, 30.05.1999, *D 196*. Sariveliler-Civandere entrance, near the stream on willow, 1600 m, 31.10.1999, *D 243*. Karaman-Bucakkışla, on poplar, 13.05.2000, *D 563*. Karaman-Pınarbaşı, 1250 m, 24.11.2000, *D 1037*.

161. *Phellinus laevigatus* (Fr.) Bourdot & Galzin

Bucakkışla-Göksu, near the bridge on poplar, 500 m, 13.05.2000, *D 572*.

162. *Phellinus nigricans* (Fr.) P.Karst.

Sariveliler-Civandere village, near the stream on *Platanus* sp., 1600 m, 15.06.1999, *D 209*.

163. *Phellinus pomaceus* (Pers.) Maire

Karaman-Pınarbaşı village entrance, on *Prunus* sp., 1250 m, 24.11.2000, *D 1034*.

164. *Phellinus punctatus* (Fr.) Pilát

Bucakkışla-İhsaniye village, Şekerpınarı district, on willow, 1550 m, 30.05.1999, *D 205*.

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

Bucakkışla-İhsaniye village, Köprücek district, on poplar, 1700 m, 01.11.1998, *D 13*. on the road to Gezende Dam, on poplar, 1500 m, 12.04.1999, *D 127*. Bucakkışla-İhsaniye village, Şekerpınarı district, on poplar, 30.05.1999, *D 197*.

166. *Phellinus vorax* (Harkn.) Cerny

Sariveliler-Civandere, Kumluçukur district, on fir, 1750 m, 22.11.1998, *D 34, 46*. Bucakkışla-Bayır village, Değirmendere district, on fir, 1000 m, 22.04.2000, *D 479*. Başyayla-Katranlı Plateau, on fir, 1700 m, 26.11.2000, *D 1057*.

## Phallales

## Geastraceae

167. *Geastrum fimbriatum* Fr.

Sariveliler-Civandere, Kumluçukur district, in fir forest, 1700 m, 22.11.1998, *D 42*. Başyayla-Katranlı Plateau, in fir forest, 1700 m, 29.10.2000, *D 1019*.

168. *Geastrum pectinatum* Pers.

Bucakkışla-Bayır village, Tozlu district, in black pine forest, 1650 m, 27.10.2000, *D 972, 974*.

169. *Geastrum rufescens* Pers.

Sariveliler-Kumluçukur district, in fir forest, 1750 m, 22.11.1998 *D 41*. Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 74*.

170. *Geastrum schmidelii* Vittad.

Bucakkışla-Bayır village, Tozlu district, in black pine forest, 1600 m, 27.10.2000, *D 973*.

171. *Geastrum triplex* Jungh.

Karaman-İhsaniye village Köprücek district, in black pine forest, 1700 m, 31.10.1998, *D 11*. Sariveliler-Civandere, Kumluçukur district, in fir forest, 1750 m 22.11.1998, *D 40*. Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 75*.

**Gomphaceae**

172. *Gomphus clavatus* (Pers.) Gray

Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 30.10.1999, *D 244*.

**Ramariaceae**

173. *Ramaria flava* (Tourn. ex Battarra) Quéf.

Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 26.11.2000, *D 1065*.

**Polyporales**

**Fomitopsidaceae**

174. *Postia stiptica* (Pers.) Jülich

Bucakkışla-Bostanözü village, Yumrutepe district, on black pine stump, 1150 m, 31.05.2000, *D 770*. Tozlu district, on black pine stump, 1500 m, 10.06.2000, *D 875*.

175. *Postia tephroleuca* (Fr.) Jülich

Sariveliler-Civandere, Kumluçukur district, on cedar, 1700 m, 31.10.1999, *D 247*. Bucakkışla-Bayır village, Gökçepınar district, on black pine stump, 1500 m, 13.05.2000, *D 587*.

**Ganodermataceae**

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

Bucakkışla-Bayır village, Değirmendere district, on poplar stump, 1250 m, 22.04.2000, *D 478*.

**Gloeophyllaceae**

177. *Gloeophyllum sepiarium* (Wulfen) P.Karst.

Bucakkışla-Yumrutepe district, on fir, 1250 m,

22.04.2000, *D 474, 475*. Bucakkışla-Tozlu district, on black pine, 1700 m, 10.06.2000, *D 876*.

178. *Gloeophyllum trabeum* (Pers.) Murrill

Bucakkışla-Tozlu district, on black pine, 1600 m, 19.05.2000, *D 678*.

**Hapalopilaceae**

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

Bucakkışla-İhsaniye village, Şekerpinarı district, on poplar stump, 1550 m, 31.05.2000, *D 798*. Karaman Pınarbaşı village, entrance on poplar stump, 1250 m, 27.10.2000, *D 965*.

**Meruliaceae**

180. *Chondrostereum purpureum* (Pers.) Pouzar

Bucakkışla-Bostanözü village, on poplar stumps, 500 m, 22.04.2000, *D 471*.

**Polyporaceae**

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

Bucakkışla-Göksu, near the bridge on poplar, 500 m, 29.05.1999, *D 196*, 19.05.2000, *D 640*.

182. *Laricifomes officinalis* (Vill.) Kotl. & Pouzar

Başyayla-Katranlı Plateau, Kum Ocağı district, on cedar, 1800 m, 23.10.1999, *D 224*.

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

Bucakkışla-Göksu, near the bridge on poplar, 500 m, 31.10.1998, *D 01,02,16,19,20*; 19.05.2000, *D 642, 648*. Bucakkışla-Bayır village, Değirmendere district, on willow, 950 m, 22.04.2000, *D 481*.

184. *Pyrofomes demidoffii* (Lév.) Kotl. & Pouzar

Sariveliler-Civandere, Kumluçukur district, on *Juniperus excelsa*, 1750 m, 23.10.1999, *D 216*.

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

Karaman-Pınarbaşı village, on poplar stump, 1250 m, 24.11.2000, *D 1038*.

186. *Trametes ochracea* (Pers.) Gilb. & Ryvarden

Karaman-Bucakkışla, Göksu, near the bridge on poplar, 500 m, 19.05.2000, *D 646*. Bucakkışla-İhsaniye village, Şekerpinarı district, on willow, 1550 m, 31.05.2000, *D 808*.

187. *Trametes versicolor* (L.) Lloyd

Bucakkışla-İhsaniye village, Şekerpinarı district, on poplar, 1550 m, 31.05.2000, *D 798*.

188. *Trichaptum abietinum* (Dicks.) Ryvarden

Başyayla-Katranlı Plateau, on fir stump, 1700 m, 23.10.1999, *D 219*. Bucakkışla-Bayır village, Tozlu district, on fir stump, 1650 m, 26.11.1999, *D 250*.

189. *Trichaptum fuscoviolaceum* (Ehrenb.) Ryvarden

Sariveliler-Kumluçukur district, on fir, 1700 m, 23.04.1999, *D 169*.

## Russulales

## Hericiaceae

190. *Hericium cirrhatum* (Pers.) Nikol.

Karaman-Bayır village, Değirmendere district, on willow branch, 950 m, 22.04.2000, *D 480*.

## Russulaceae

191. *Lactarius acerrimus* Britzelm.

Sariveliler, in black pine forest, 1450 m, 02.06.2000, *D 852*.

192. *Lactarius deliciosus* (L.) Gray

Bucakkışla-Bayır village, Tozlu district, in black pine forest, 1550 m, 31.05.2000, *D 782, 786*. Bucakkışla-Kazıklı Mezar district, in black pine forest, 1600 m, 10.06.2000, *D 871, 872, 873*.

193. *Russula chloroides* (Krombh.) Bres.

Sariveliler-Civandere, in mixed oak and black pine forest, 1550 m, 02.06.2000, *D 850*.

194. *Russula emetica* (Schaeff.) Pers.

Bucakkışla-Kazıklı Mezar district, in black pine forest, 1600 m, 10.06.2000, *D 869*.

195. *Russula ochroleuca* (Pers.) Fr.

Bucakkışla-Bayır village, Tozlu district, in black pine forest, 1600 m, 10.06.2000, *D 874*. Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 29.10.2000, *D 1000*, 26.11.2000, *D 1061*.

196. *Russula pallidospora* J.Blum ex Romagn.

Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 23.10.1999, *D 221*.

197. *Russula vesca* Fr.

Bucakkışla-Bayır village, Tozlu district, in black pine forest, 1600 m, 31.05.2000, *D 785*, 10.06.2000, *D 870*.

## Stereaceae

198. *Stereum hirsutum* (Willd.) Pers.

Bucakkışla-Bostanözü village, on poplar branch, 500 m, 22.04.2000, *D 470*.

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

Başyayla-Katranlı Plateau, on fir stump, 1700 m, 23.10.1999, *D 220*. Bucakkışla-Bayır village, Tozlu district, on black pine branch, 1650 m, 27.10.2000, *D 975*.

## Thelephorales

## Bankeraceae

200. *Sarcodon glaucopus* Maas Geest. & Nannf.

Başyayla-Katranlı Plateau, in black pine forest, 1700 m, 30.10.1999, *D 231*. Başyayla, in black pine forest, 1650 m, 26.11.2000, *D 1068*.

201. *Sarcodon imbricatus* (L.) P.Karst.

Sariveliler-Kumluçukur district, in mixed cedar and fir forest, 1700 m, 22.11.1998, *D 44*.

## Thelephoraceae

202. *Boletopsis leucomelaena* (Pers.) Fayod

Sariveliler-Civandere, Kumluçukur district, in cedar forest, 1700 m, 22.11.1998, *D 43*. Başyayla-Katranlı Plateau, in cedar forest, 1700 m, 05.12.1998, *D 48*, 12.11.1999, *D 226, 242, 282*.

## Discussion

In this study, 202 macrofungi taxa belonging to 41 families were identified in Karaman, Turkey. Of those taxa, 5.5% belonged to *Ascomycetes*, while 94.5% belonged to *Basidiomycetes*.

The study area supports an abundantly rich macrofungal flora that grows in various habitats, e.g., pine, cedar, fir, and oak forests. In addition, poplar and willow stands are very suitable for the growth of macrofungi. The most common habitats for macrofungi species were black pine forests (115 species), cedar forests (54 species), poplar stands (50 species), fir forests (27 species), willow stands (24 species), and oak forests (19 species).

Lignicolous parasitic macrofungi represented 18.5% of the species (37 species) in the study area. The most

common taxa were *Stereum*, *Inonotus*, *Phellinus*, *Gloeophyllum*, *Trametes*, *Schizophyllum commune*, and *Fomes fomentarius*. They were cosmopolitan on black pine, cedar, fir, oak, poplar, and willow trees. Nevertheless, some species were specific to certain hosts: *Inonotus tamaricus* on *Tamarix* sp., *Phellinus vorax* on *Abies* sp. and *Cedrus libani*, *Pyrofomes demidoffii* on *Juniperus* sp., *Laricifomes officinalis* on *C. libani*. *Terfezia boudierii* also prefers a special host, *Helianthemum* sp., for mycorrhizal association.

*Laricifomes officinalis* is very important due to its antimicrobial and anti-carcinogenic features. This fungus is now very rare in Turkey, whereas it was quite abundant 1000 years ago (Karadelev & Doğan, 2003). This fungus has been protected in European countries, but data are not available concerning its conservation status in Turkey (Karadelev & Doğan, 2003).

Most members of *Tricholomataceae* and *Coprinaceae* are terricolous, while most *Cortinariaceae* and *Russulaceae* members are mycorrhizal with conifer trees.

Nineteen of the 202 macrofungi species in the area are eaten by local people. The edible species and their local names are: *Mitrophora semilibera* (kuzugöbeği), *Morchella esculenta* var. *umbrina* (kuzugöbeği), *Terfezia boudierii* (Domalan), *Agaricus campestris* (çayır mantarı), *Bovista plumbea* (toz mantarı), *Chroogomphus rutilus*

(geyik mantarı), *Gomphus clavatus* (mor mantarı), *Lactarius deliciosus* (çintar), *Langermannia gigantea* (sünger mantarı), *Lepista nuda* (mor mantarı), *Macrolepiota excoriata* (un mantarı, külahlı mantarı), *Macrolepiota procera* (un mantarı), *Melanoleuca schumacheri* (külahlı mantarı), *Pleurotus ostreatus* (kavak mantarı), *Ramaria flava* (karnıbahar mantarı), *Rhizopogon roseolus* (Patates mantarı), *Tricholoma populinum* (kavak mantarı), *Tricholoma terreum* (çam mantarı), and *Xerula melanotricha* (karabacak). There were also 17 poisonous fungi in the research area: *Boletus pulverulentus*, *Coprinus atramentarius*, *Clitocybe clavipes*, *Entoloma cetratum*, *E. sinuatum*, *Galerina marginata*, *Hebeloma crustuliniforme*, *Hypholoma fasciculare*, *Inocybe dulcamara*, *I. rimosa*, *I. muricellata*, *I. lacera*, *Leucoagaricus badhamii*, *Panaeolus ater*, *Paxillus involutus*, *Russula emetica*, and *Tricholoma pardalotum*.

There are no records of poisonings, while poisonous macrofungi are common in the area and local people do not have sufficient knowledge about poisonous mushrooms.

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