



## Macromycetes determined in Çamlı (Of-Trabzon) village and its environs

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### Çamlı (Of-Trabzon) mahallesi ve çevresinde belirlenen makromantarlar

**Abstract:** The study was carried out on the macrofungi samples collected from Çamlı (Of-Trabzon) district and its close environs. As a result, 118 macrofungi species within 63 genera, 38 families, 8 orders and 3 classes belonging to *Ascomycota* and *Basidiomycota* were determined. Ten of the determined species belong to *Ascomycota* while 108 belong to *Basidiomycota*. In the region, the most crowded order is *Agaricales*, the most crowded families are *Inocybaceae* and *Psathyrellaceae*, and the most crowded genus is *Inocybe* in terms of taxa number. The determined species are listed together with their localities, habitats/substrates, geographical position, collection date and voucher numbers.

**Key words:** Biodiversity, macrofungi, Trabzon, Türkiye

**Özet:** Çalışma, Çamlı mahallesi (Of-Trabzon) ve yakın çevresinden toplanan makromantar örnekleri üzerinde gerçekleştirilmiştir. Sonuçta *Ascomycota* ve *Basidiomycota* bölümlerine ait 3 sınıf, 8 takım, 38 familya ve 63 cins içinde dağılım gösteren 118 makromantar türü belirlenmiştir. Belirlenen türlerden 10 tanesi *Ascomycota*, 108 tanesi ise *Basidiomycota* bölümüne aittir. Bölgede tür çeşitliliği bağlamında en kalabalık takım *Agaricales*, en kalabalık familyalar *Inocybaceae* ve *Psathyrellaceae*, en kalabalık cins ise *Inocybe*'dir. Yörede belirlenen türler, lokalitesi, habitatı/substratı, toplandığı coğrafi koordinat, toplanma tarihi ve toplayıcı numaraları ile birlikte listelenmiştir.

**Anahtar Kelimeler:** Biyoçeşitlilik, makromantarlar, Trabzon, Türkiye

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## 1. Introduction

A study on macrofungal biodiversity of Çamlı and the surrounding villages (Dumlusu, İrfanlı, Kiraz, Yemişalan, Çamlıtepe) within Of district of Trabzon province was performed between 2018 and 2021. The area is situated between 40°52'-40°57' northern latitudes and 40°14'-40°17' eastern longitudes, and covers about %20 of the surface area of district Of (Fig. 1). Phytogeographically the research area falls in Colchis sector of the Euro-Siberian floristic area within Holarctic flora kingdom (Davis, 1965). According to meteorologic data of Trabzon meteorological station, the region has an annual average temperature of 14.8°C, and a rainfall of 828 mm. Members of *Alnus* Mill., *Carpinus* L., *Castanea* Mill., *Fagus* L., *Fraxinus* L., *Buxus* L., *Larix* Mill., *Pinus* L., *Rhododendron* L. and *Tilia* L. are the main components of forest vegetation of the region.

Some local lists (Sesli 1993, Keleş et al., 2014; Oruç et al., 2021; Uzun and Kaya, 2022) were presented within the boundaries of Rize and Trabzon provinces, and some new records were also presented from the region (Keleş, 2019a) and the neighboring regions (Keleş, 2019b, 2020; Sesli 2021, 2022, 2023; Keleş et al., 2022; Yeşilyurt et al., 2023). However, the current checklists (Sesli et al., 2020; Uzun, 2023) and the contributory studies, presented after checklists, indicate that the area is among the unstudied regions of Türkiye in terms of macrofungal biodiversity. The study aims to determine the macrofungal composition of the region, and to make a contribution to the mycobiota of Türkiye.

## 2. Materials and Method

Macromycete samples were collected from Çamlı and neighboring villages (Dumlusu, Yemişalan, Kiraz, Çamlıtepe, İrfanlı), including Of central district, during periodic field trips between 2018 and 2021. During field studies, available habitats were traced and upon finding the fruit bodies, necessary data related to macromorphology and ecology were noted and they were photographed at their natural habitats. Then some of them were collected and transferred to the fungarium in paper boxes. After drying, the samples were put in zip lock polyethylene bags as fungarium materials. Micromorphological data was obtained from the dry samples upon the investigations carried out under a light microscope. Twenty to 25 measurements were performed to obtain an average size of micromorphologic structures. Then the samples were identified by comparing the accumulated data with the relevant literature (Phillips, 1981; Breitenbach and Kränzlin, 1984-2000; Bresinsky and Besl, 1990; Hansen and Knudsen, 1992, 2000; Jordan, 1995; Bessette et al., 1997, 2007; Kränzlin, 2005; Bessette and Bessette, 2006; Antonin and Noordeloos, 2010; Beug et al., 2014; Siegel and Schwarz, 2016). The specimens are kept at Yüzüncü Yıl University.

## 3. Results

The determined taxa are listed in alphabetical order. Current names of the species are in accordance with IndexFungorum (2023).

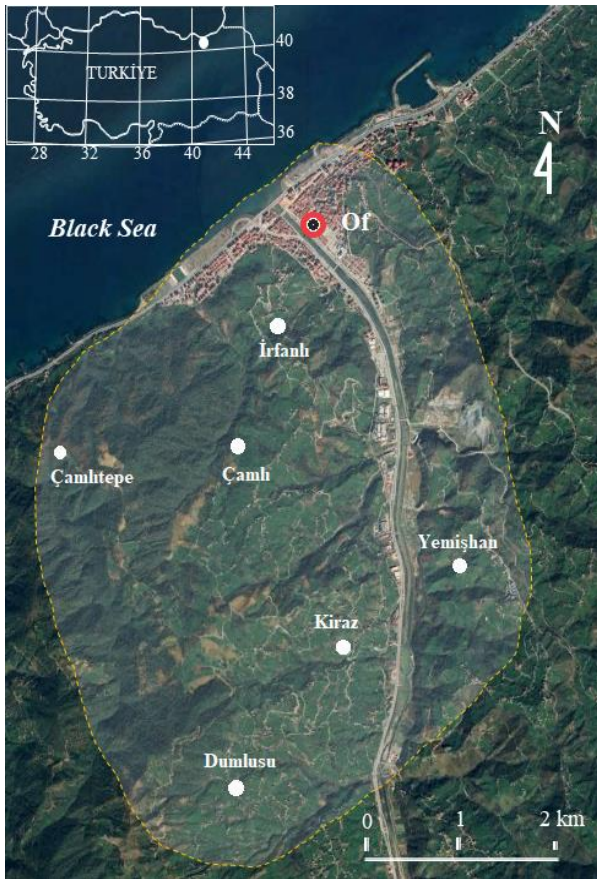


Figure 1. Macrofungi collection sites.

**Ascomycota** Whittaker

**Pezizales** J. Schröt.

**Helvellaceae** Fr.

1. *Dissingia leucomelaena* (Pers.) K. Hansen & X.H. Wang

Çamlı village, aronud highways nursing station, among needle litter under *Pinus* sp., 40°55'N-40°16'E, 20 m, 12.10.2021, AK 5802.

2. *Helvella compressa* (Snyder) N.S. Weber

Yemişalan village, cemetery, under deciduous wood, 40°54'N-40°17'E, 174 m, 23.10.2021, AK 5828.

3. *Helvella crispa* (Scop.) Fr.

İrfanlı village, around Ulusoy residences, under *Larix* sp., 40°56'N-40°15'E, 80 m, 12.10.2019, AK 5592.

4. *Helvella elastica* Bull.

İrfanlı village, around Ulusoy residences, under *Actinidia Lindl.* sp., 40°56'N-40°15'E, 80 m., 16.11.2019, AK 5517; aronud highways nursing station, under *Pinus* sp., 40°55'N-40°16'E, 20 m, 16.09.2019, AK 5799; 23.10.2021, AK. 5843; Kiraz village, under *Pinus* sp., 40°54'N-40°15'E, 245 m., 16.11.2020, AK 5816; Çamlı village, Of Çay factory garden, under *Larix* sp., 40°55'N-40°16'E, 18 m, 07.12.2021, AK 5875.

5. *Helvella latispora* Boud.

İrfanlı village, around Ulusoy residences, under *Populus L.* sp., 40°56'N-40°15'E, 80 m, 28.10.2018, AK 5504.

6. *Helvella macropus* (Pers.) P. Karst.

Çamlı village, Of Çay factory garden, under *Larix* sp., 40°55'N-40°16'E, 18 m, 07.11.2019, AK 5661.

**Pezizaceae** Dumort.

7. *Peziza repanda* Wahlenb. Ex Fr.

İrfanlı village, Ulusoy Multi-Program Anatolian Vocational High School garden, on decaying hardboards, 40°56'N-40°16'E, 8 m, 13.05.2021, AK 5751.

**Pyronemataceae** Corda

8. *Aleuria aurantia* (Pers.) Fuckel

Dumlusu village, roadside, on soil, 40°53'N-40°16'E, 203 m, 24.10.2021, AK. 5860.

**Sarcoscyphaceae** Le Gal ex Eckblad

9. *Sarcoscypha coccinea* (Jacq.) Lambotte

İrfanlı village, Ulusoy Multi-Program Anatolian Vocational High School garden, on soil, 40°56'N-40°16'E, 8 m, 13.05.2021, AK 5756.

**Sordariomycetes** O.E. Erikss. & Winka

**Xylariales** Nannf.

**Xylariaceae** Tul. & C. Tul.

10. *Xylaria polymorpha* (Pers.) Grev.

Çamlı village, *Corylus L.* sp. garden, on decaying stump, 40°55'N-40°16'E, 148 m, 23.10.2021, AK 5661.

**Basidiomycota** R.T. Moore

**Agaricales** Underw.

**Agaricaceae** Chevall.

11. *Agaricus moelleri* Wasser

İrfanlı village, Ulusoy Multi-Program Anatolian Vocational High School garden, under *Larix* sp., 40°56'N-40°16'E, 8 m, 07.11.2021, AK 5681;

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

Kiraz village, among grass in *Corylus* sp. garden, 40°54'N-40°15'E, 245 m, 07.07.2018, AK 5424.

13. *Leucocoprinus cepistipes* (Sowerby) Pat.

Dumlusu village, on processed dry tea remains, 40°53'N-40°16'E, 50 m, 12.10.2019, AK. 5574.

**Amanitaceae** E.-J. Gilbert

14. *Amanita caesarea* (Scop.) Pers.

İrfanlı village, around Ulusoy residences, under *Larix* sp., 40°56'N-40°15'E, 80 m, 28.10.2018, AK 5490.

15. *Amanita citrina* Pers.

İrfanlı village, around Ulusoy residences, meadow 40°56'N-40°15'E, 80 m., 12.10.2021, AK 5798; İrfanlı village, around İrfaniye mosque, under deciduous forest, 40°56'N-40°15'E, 140 m, 28.10.2018, AK 5509.

16. *Amanita mairei* Foley

Çamlı village, among grass in *Corylus* sp. garden, 40°55'N-40°16'E, 148 m., 12.10.2021, AK 5810.

17. *Amanita muscaria* (L.) Lam.

Yemişalan village, around flour mill, under *Carpinus* sp., 40°55'N-40°17'E, 169 m, 18.08.2020, AK 5714.

18. *Amanita rubescens* Pers.

Çamlı village, cemetery, on soil under *Pinus* sp., 40°55'N-40°15'E, 217 m, 07.07.2018, AK 5453.

19. *Amanita vaginata* (Bull.) Lam.

Çamlı village, among grass in *Corylus* sp. garden, 40°55'N-40°16'E, 148 m, 12.10.2021, AK 251, 5816.

#### **Bolbitiaceae** Singer

20. *Conocybe tenera* (Schaeff.) Kühner

Dumlu village, among grass in *Corylus* sp. garden, 40°52'N-40°16'E, 323 m, 16.10.2020, AK. 5718.

21. *Conocybe rickenii* (Jul. Schaff.) Kühner

Çamlı village, among grass under *Pinus* sp., 40°55'N-40°16'E, 20 m., 06.04.2019, AK 5536.

#### **Cortinariaceae** Singer

22. *Cortinarius cinnamoviolaceus* M.M. Moser

Çamlı village, Of Çay factory garden, on soil among needle litter, 40°55'N-40°16'E, 18 m, 07.11.2019, AK 5663.

23. *Galerina heterocystis* (G.F. Atk.) A.H. Sm. & Singer

Çamlı village, around highways nursing station, among grass under *Pinus* sp., 40°55'N-40°16'E, 20 m, 01.01.2021, AK 5743.

#### **Entolomataceae** Kotl. & Pouzar

24. *Entoloma ameides* (Berk. & Broome) Sacc.

Yemişalan village, under deciduous forest, 40°54'N-40°17'E, 174 m, 18.10.2021, AK 5777.

25. *Entoloma conferendum* (Britzelm.) Noordel.

Çamlı village, Engineering Faculty garden, meadow, 40°55'N-40°16'E, 15 m, 21.07.2019, AK 5571.

26. *Entoloma rhodopolium* (Fr.) P. Kumm.

Dumlu village, among grass in *Corylus* sp. garden, 40°53'N-40°16'E, 90 m, 24.10.2021, AK 5869.

27. *Entoloma subradiatum* (Kühner & Romagn.) M.M. Moser

Yemişalan village, among grass in *Corylus* sp. garden, 40°54'N-40°16'E, 149 m, 23.10.2021, AK 5820.

#### **Hydnangiaceae** Gäum. & C.W. Dodge

28. *Laccaria laccata* (Scop.) Cooke

Yemişalan village, cemetery, under *Larix* sp., çayırılık, 40°54'N-40°17'E, 180 m, 23.10.2021, AK 5830; Çamlı village, under *Pinus* sp., 40°55'N-40°16'E, 20 m, 23.10.2021, AK: 5841; 07.12.2021, AK. 5874.

#### **Hygrophoraceae** Lotsy

29. *Hygrocybe citrina* (Rea) J.E. Lange

Yemişalan village, around Mimar Sinan mosque, under deciduous forest, 40°54'N-40°17'E, 174 m, 18.09.2021, AK 5766.

30. *Hygrocybe conica* (Schaeff.) P. Kumm.

İrfanlı village, around İrfaniye mosque, under deciduous forest, 40°56'N-40°15'E, 140 m, 16.11.2018, AK 5524.

31. *Hygrocybe punicea* (Fr.) P. Kumm.

Çamlı village, Engineering Faculty garden, meadow, 40°55'N-40°16'E, 15 m, 21.07.2019, AK, 5572.

#### **Incertae sedis**

32. *Clitocybe fragrans* (With.) P. Kumm.

İrfanlı village, cemetery, among needle litter under *Pinus* sp., 40°56'N-40°15'E, 71 m, 07.07.2018, AK. 5428.

33. *Clitocybe phyllophila* (Pers.) P. Kumm.

Çamlı village, around highways nursing station, under *Pinus* sp., 40°55'N-40°16'E, 20 m, 16.11.2018, AK 5515.

34. *Crucibulum laeve* (Huds.) Kambly

İrfanlı village, cemetery, on decaying herb remains, 40°56'N-40°15'E, 71 m, 07.07.2018, AK 5439; around Ulusoy residences, on decaying twigs, 40°56'N-40°15'E, 80 m, 28.10.2018, AK 5798.

35. *Cyathus olla* (Batsch) Pers.

Çamlı village, on woody remains in meadow, 40°55'N-40°16'E, 148 m, 21.07.2019, AK, 5568.

#### **Inocybaceae** Jülich

36. *Inocybe bresadolae* Masee

İrfanlı village, around Ulusoy Multi-Program Anatolian Vocational High School, under deciduous forest, 40°56'N-40°16'E, 8 m, 17.07.2019, AK 5551.

37. *Inocybe dulcamara* (Pers.) P. Kumm.

Çamlı village, around highways nursing station, under *Pinus* sp., 40°55'N-40°16'E, 20 m, 16.11.2018, AK 5513; 06.04.2019, AK 5537; İrfanlı village, around Ulusoy Multi-Program Anatolian Vocational High School, deciduous forest, 40°56'N-40°16'E, 8 m, 11.10.2019, AK 5794.

38. *Inocybe geophylla* P. Kumm.

Çamlı village, cemetery, under *Pinus* sp., 40°55'N-40°15'E, 217 m, 06.04.2019, AK 5543.

39. *Inocybe hirtella* Bres.

İrfanlı village, around Ulusoy residences, under *Populus* sp., 40°56'N-40°15'E, 80 m, 28.10.2018, AK 5496.

40. *Inocybe hystrix* (Fr.) P. Karst.

Yemişalan village, around group houses, among grass in *Corylus* sp. garden, 40°54'N-40°17'E, 172 m, 16.11.2020, AK 5827.

41. *Inocybe praetervisa* Quéf.

Yemişalan village, around group houses, under *Pinus* sp., 40°54'N-40°17'E, 172 m, 11.10.2021, AK 5783.

42. *Inocybe queletii* Konrad

Çamlı mah. around highways nursing station, under *Pinus* sp., 40°55'N-40°16'E, 20 m, 16.11.2018, AK 5512.

43. *Inocybe subcarpta* Kühner & Boursier

Dumlu village, among grass in *Corylus* sp. garden, 40°53'N-40°16'E, 203 m, 05.11.2019 AK 5623.

44. *Inocybe taxocystis* (J. Favre & E. Horak) Senn-Irlet

Çamlı village, cemetery, under *Pinus* sp., 40°55'N-40°15'E, 217 m, 06.04.2018, AK 5542.

45. *Inocybe tenebrosa* Quéf.

İrfanlı village, around İrfaniye mosque, under *Pinus* sp., 40°56'N-40°15'E, 140 m, 19.11.2018, AK 5532.

46. *Pseudosperma rimosum* (Bull.) Matheny & Esteve-Rav.

İrfanlı village, among grass in *Corylus* sp. garden, 40°56'N-40°15'E, 24 m, 07.07.2018, AK 5412; Çamlı village, 40°56'N-40°15'E, 24 m, 23.09.2018, AK,5471.

**Lycoperdaceae** Chevall.

47. *Lycoperdon molle* Pers.

İrfanlı village, around Ulusoy Multi-Program Anatolian Vocational High School, under *Larix* sp., 40°56'N-40°16'E, 8 m, 17.07.2019, AK 5557.

48. *Lycoperdon pratense* Pers.

Yemişalan village, around flour mill, meadow, 40°55'N-40°17'E, 191 m, 18.08.2020, AK 5714.

**Macrocytidiaceae** Kühner

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

Çamlı village, among grass in *Corylus* sp. garden, 40°55'N-40°16'E, 148 m, 07.07.2018, AK, 5454.

**Marasmiaceae** Roze ex Kühner

50. *Gerronema nemorale* Har. Takah.

Kiraz village, on decaying twigs in *Corylus* sp. garden, 40°54'N-40°15'E, 245 m, 07.07.2018, AK 5424.

51. *Marasmius bulliardii* Quél.

İrfanlı village, on decaying twigs, 40°56'N-40°15'E, 24 m, 28.10.2018, AK 5489.

52. *Marasmius capillaris* Morgan

İrfanlı village, on *Corylus* sp. remains, 40°56'N-40°15'E, 24 m, 07.07.2018, AK 5410.

53. *Marasmius cohaerens* (Pers.) Cooke & Quél.

Kiraz village, on *Alnus* sp. stump, 40°54'N-40°15'E, 245 m, 07.07.2018, AK. 5421.

54. *Marasmius siccus* (Schwein.) Fr.

İrfanlı village, on *Corylus* sp. remains, 40°56'N-40°15'E, 24 m, 07.07.2018, AK 5409.

**Mycenaceae** Overeem

55. *Atheniella delectabilis* (Peck) Lüderitz & H. Lehmann

İrfanlı village, in *Corylus* sp. garden, 40°56'N-40°15'E, 24 m, 07.07.2018, AK 5411.

56. *Atheniella flavoalba* (Fr.) Redhead, Moncalvo, Vilgalys, Desjardin & BA Perry

İrfanlı village, cemetery, on herb remains, 40°56'N-40°15'E, 71 m, 07.07.2021, AK 5433.

57. *Mycena abramsii* (Murrill) Murrill

İrfanlı village, around İrfaniye mosque, under *Pinus* sp., 40°56'N-40°15'E, 140 m, 12.10.2021, AK 5806.

58. *Mycena flavescens* Velen.

Çamlı village, on decaying *Corylus* sp. twigs, 40°56'N-40°16'E, 148 m, 12.10.2021, AK 5814.

59. *Mycena galericulata* (Scop.) Gray

Yemişalan village, on *Alnus* sp. stump, 40°54'N-40°16'E, 149 m, 23.10.2021, AK 5821.

**Omphalotaceae** Bresinsk

60. *Collybiopsis ramealis* (Bull.) Millsp.

İrfanlı village, cemetery, under *Pinus* sp., 40°56'N-40°15'E, 71 m, 07.07.2018, AK 5436.

61. *Collybiopsis vaillantii* (Pers.) R.H. Petersen

İrfanlı village, cemetery, on decaying *Pinus* sp. branch, 40°56'N-40°15'E, 71 m, 07.07.2018, AK 5432.

62. *Gymnopus dryophilus* (Bull.) Murrill

İrfanlı village, around Ulusoy Multi-Program Anatolian Vocational High School, under *Larix* sp., 40°56'N-40°16'E, 8 m, 17.07.2019, AK 5678.

63. *Gymnopus erythropus* (Pers.) Antonín, Halling & Noordel.

İrfanlı village, among grass in *Corylus* sp. garden, 40°56'N-40°15'E, 24 m, 23.09.2018, AK 5459.

**Physalacriaceae** Corner

64. *Armillaria cepistipes* Velen

Dumlu village, among grass in *Corylus* sp. garden, 40°53'N-40°16'E, 50 m, 12.10.2019, AK 5854.

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

Yemişalan village, on *Corylus* sp. stump, 40°54'N-40°16'E, 149 m, 23.10.2021, AK 367; Dumlu village, 40°53'N-40°16'E, 203 m, 24.10.2021 AK 5605.

66. *Strobilurus trullisatus* (Murrill) Lennox

İrfanlı village, cemetery, among needle litter under *Pinus* sp., 40°56'N-40°15'E, 71 m, 07.07.2018, AK 5417.

**Pluteaceae** Kotl. & Pouzar

67. *Pluteus plautus* (Weinm.) Gillet

Kiraz village, on decaying *Corylus* sp. stump, 40°54'N-40°15'E, 245 m, 07.07.2018, AK 5423.

**Psathyrellaceae** Vilgalys, Moncalvo & Redhead

68. *Britzelmayria multipedata* (Peck) D. Wächt. & A. Melzer

İrfanlı village, on decaying *Corylus* sp. twigs, 40°56'N-40°15'E, 24m., 07.07.2018, AK 5406.

69. *Candolleomyces candolleanus* (Fr.) D. Wächt. & A. Melzer

İrfanlı village, cemetery, on decaying twigs, 40°56'N-40°15'E, 71 m, 07.07.2018, AK 5430; Çamlı village, cemetery, among herb remains, 40°55'N-40°15'E, 217 m, 07.07.2018, AK 5452; İrfanlı village, around Ulusoy Multi-Program Anatolian Vocational High School, around decaying stump, 40°56'N-40°16'E, 8 m, 21.07.2019, AK 5579.

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

İrfanlı village, around Ulusoy residences, on damp soil under deciduous forest, 40°56'N-40°15'E, 80 m, 12.10.2021, AK 5802; Çamlı village, Engineering Faculty garden, 40°55'N-40°16'E, 20 m, kütük üzeri, 11.10.2021, AK, 5796.

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

Yemişalan village, around flour mill, roadside, among grass under deciduous trees, 40°55'N-40°17'E, 160 m, 07.11.2019, AK 5672.

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

İrfanlı village, around Ulusoy Multi-Program Anatolian Vocational High School, around *Platanus* sp. stump, 40°56'N-40°16'E, 8 m, 07.11.2021, AK 5682.

73. *Coprinopsis echinospora* (Buller) Redhead, Vilgalys & Moncalvo

İrfanlı village, around Ulusoy Multi-Program Anatolian Vocational High School, kütük üzeri, 40°56'N-40°16'E, 8 m, 09.09.2021, AK 5782.

74. *Coprinopsis urticicola* (Berk. & Broome) Redhead, Vilgalys & Moncalvo

İrfanlı village, cemetery, on decaying *Urtica* sp. remains, 40°56'N-40°15'E, 71 m, 07.07.2021, AK 5458.

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

Yemişalan village, around Mimar Sinan mosque, on soil with woody remains, 40°54'N-40°17'E, 174 m, 18.09.2021, AK 5762.

76. *Psathyrella piluliformis* (Bull.) P.D. Orton

Dumlu village, mountain road, on *Alnus* sp. stump, 40°52'N-40°16'E, 335 m, 05.11.2019, AK 5629.

77. *Psathyrella pygmaea* (Bull.) Singer

İrfanlı village, on decaying *Corylus* sp. twigs, 40°56'N-40°15'E, 24 m, 07.07.2018, AK 5405.

78. *Psathyrella spadiceogrisea* (Schaeff.) Maire

İrfanlı village, cemetery, among grass under *Pinus* sp., 40°56'N-40°15'E, 71 m, 07.07.2018, AK 5430.

**Schizophyllaceae** Quéf.

79. *Schizophyllum commune* Fr.

Yemişalan village, around flour mill, on decaying stump, 40°55'N-40°17'E, 160 m, 07.11.2019, AK 5670.

**Strophariaceae** Singer & A.H. Sm.

80. *Agrocybe dura* (Bolton) Singer

İrfanlı village, around Ulusoy Multi-Program Anatolian Vocational High School, among grass under *Platanus* sp., 40°56'N-40°16'E, 8 m, 20.04.2021, AK 5751.

81. *Hypholoma fasciculare* (Huds.) P. Kumm.,

Dumlu village, mountain road, around *Alnus* sp. stump, 40°52'N-40°16'E, 335 m, 16.11.2020, AK 5715.

**Tricholomataceae** R. Heim ex Pouzar

82. *Tricholoma terreum* (Schaeff.) P. Kumm.

Çamlı village, around highways nursing station, among needle litter under *Pinus* sp., 40°55'N-40°16'E, 20 m, 07.12.2021, AK 5876.

**Tubariaceae** Vizzini

83. *Cyclocybe cylindracea* (DC.) Vizzini & Angelini

Çamlı village, around *Corylus* sp. stump, 40°55'N-40°16'E, 148 m, 23.09.2018, AK 5475; İrfanlı village, around Ulusoy Multi-Program Anatolian Vocational High School, 40°56'N-40°16'E, 8 m, 17.07.2019, AK 5446.

84. *Tubaria conspersa* (Pers.) Fayod

Kiraz village, among woody debris, 40°54'N-40°15'E, 245 m, 07.07.2018, AK 5434.

**Boletales** E.-J. Gilbert

**Boletaceae** Chevall

85. *Leccinum holopus* (Rostk.) Watling

Çamlı village, among grass in *Corylus* sp. garden, 40°55'N-40°16'E, 148 m, 23.09.2018, AK, 5482.

86. *Xerocomellus chrysenteron* (Bull.) Šutara

İrfanlı village, around Ulusoy Multi-Program Anatolian Vocational High School, under *Larix* sp., 40°56'N-40°16'E, 8 m, 17.07.2019, AK 5550.

87. *Xerocomus subtomentosus* (L.) Quéf.

Çamlı village, among grass in *Corylus* sp. garden, 40°55'N-40°16'E, 148 m, 23.09.2018, AK, 5469.

**Diplocystidiaceae** Kreisel

88. *Astraeus hygrometricus* (Pers.) Morgan

Çamlı village, around highways nursing station, under *Pinus* sp., 40°55'N-40°16'E, 20 m, 23.10.2021, AK 5840.

**Paxillaceae** Lotsy

89. *Gyrodon lividus* (Bull.) Sacc.

Yemişalan village, under deciduous trees, 40°54'N-40°17'E, 174 m, 18.09.2021, AK 5781.

90. *Paxillus involutus* (Batsch) Fr.

Yemişalan village, among grass under *Alnus* sp., 40°54'N-40°17'E, 180 m, 18.09.2021, AK 5771.

91. *Paxillus rubicundulus* P.D. Orton

Yemişalan village, around Mimar Sinan mosque, under *Larix* sp., 40°54'N-40°17'E, 174 m, 23.10.2021, AK 5829.

**Sclerodermataceae** Corda

92. *Scleroderma citrinum* Pers.

Dumlu village, roadside, on soil, 40°53'N-40°16'E, 203 m, 24.10.2021 AK. 5859.

**Suillaceae** Besl & Bresinsky

93. *Suillus americanus* (Peck) Snell

Çamlı village, around highways nursing station, under *Pinus* sp., 40°55'N-40°16'E, 20 m, 23.10.2021, AK 5514.

94. *Suillus flavidus* (Fr.) J. Presl

Dumlu village, around mountain road, under *Pinus* sp., 40°52'N-40°16'E, 349 m, 16.10.2020, AK. 5808.

**Cantharellales** Gäum.

**Cantharellaceae** J. Schröt.

95. *Cantharellus cibarius* Fr.

Yemişalan village, under deciduous trees, 40°54'N-40°17'E, 174 m, 18.09.2021, AK 5768.

96. *Clavulina cinerea* (Bull.) J. Schröt.

Dumlu village, Kıbrıs place, among woody debris, 40°53'N-40°16'E, 90 m, 24.10.2020, AK 5851.

97. *Craterellus tubaeformis* (Fr.) Quéf.

Dumlu village, Kıbrıs place, among grass in *Corylus* sp. garden, 40°53'N-40°16'E, 90 m, 24.10.2020, AK 5852.

**Hydnaceae** Chevall.

98. *Clavulina coralloides* (L.) J. Schröt.

İrfanlı village, around İrfaniye mosque, on decaying *Pinus* sp. twigs, 40°56'N-40°15'E, 24 m, 07.07.2018, AK 5415; Yemişalan village, under deciduous trees, 40°54'N-40°17'E, 174 m, 23.10.2021, AK 8334.

**Geastrales** K. Hosaka & Castellano

**Geastraceae** Corda

99. *Geastrum fimbriatum* Fr.

Çamlı village, around decaying stump under deciduous trees, 40°55'N-40°17'E, 197 m, 23.10.2021, AK, 5590.

100. *Gastrum rufescens* Pers.

Yemişalan village, cemetery, under deciduous trees, 40°54'N-40°17'E, 175 m, 23.10.2021, AK 382; Yemişalan village, around Mimar Sinan mosque, 40°54'N-40°17'E, 174 m, 23.10.2021, AK 5763.

**Polyporales** Gäum.

**Laetiporaceae** Jülich

101. *Laetiporus sulphureus* (Bull.) Murrill

Çamlıtepe village, on *Salix* sp. stump, 40°54'N-40°15'E, 245 m, 16.11.2020, AK 5726.

**Polyporaceae** Fr. ex Corda

102. *Cerioporus squamosus* (Huds.) Quél.

Yemişalan village, around Mimar Sinan mosque, on *Morus* sp. stump, 40°54'N-40°17'E, 174 m, 20.04.2020, AK 5713.

103. *Ganoderma adspersum* (Schulzer) Donk

Kiraz village, on *Corylus* sp. stump, 40°54'N-40°15'E, 245 m, 16.11.2020, AK 5814.

104. *Trametes hirsuta* (Wulfen) Lloyd

Dumlusu village, mountain road, on decaying *Carpinus* sp. twigs, 40°52'N-40°16'E, 335 m, 16.10.2020, AK 5723.

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

İrfanlı village, on decaying *Corylus* sp. twigs, 40°56'N-40°15'E, 24 m, 07.07.2018, AK 5402.

106. *Trametes pubescens* (Schumach.) Pilát

Dumlusu village, on decaying *Alnus* sp. branch, 40°52'N-40°16'E, 349 m, 05.11.2019, AK 5637.

107. *Trametes versicolor* (L) Lloyd

Çamlı village, on decaying *Alnus* sp. branch 40°55'N-40°16'E, 148 m, 23.09.2018, AK 5478.

**Russulales** Kreisel ex P.M. Kirk, P.F. Cannon & J.C. David

**Auriscalpiaceae** Maas Geest.

108. *Auriscalpium vulgare* Gray

İrfanlı village, around İrfaniye mosque, on decaying pine cone, 40°56'N-40°15'E, 174 m, 19.11.2019, AK 5526.

**Russulaceae** Lotsy

109. *Lactarius chrysorrheus* Fr.

Dumlusu village, among grass in *Corylus* sp. garden, 40°53'N-40°16'E, 50 m, 12.10.2019, AK 5604.

110. *Lactarius flavidus* Boud.

İrfanlı village, around İrfaniye mosque, among needle litter under *Pinus* sp., 40°56'N-40°15'E, 174 m, 19.11.2019, AK 5518.

111. *Lactarius glycosmus* (Fr.) Fr.

Dumlusu village, Kibris place, among grass in *Corylus* sp. garden, 40°53'N-40°16'E, 90 m, 11.10.2021, AK. 5788.

112. *Lactarius salmonicolor* R. Heim & Leclair

Çamlı village, aronud highways nursing station, under *Pinus* sp., 40°55'N-40°16'E, 20 m, 16.10.2020, AK 5733.

113. *Lactarius semisanguifluus* R. Heim & Leclair

Çamlı village, aronud highways nursing station, under *Pinus* sp., 40°55'N-40°16'E, 217 m, 16.11.2020, AK 5736.

114. *Russula cavipes* Britzelm.

İrfanlı village, around İrfaniye mosque, under *Pinus* sp., 40°56'N-40°15'E, 174 m, 16.11.2018, AK 5520, 5521.

115. *Russula cyanoxantha* (Schaeff.) Fr.

Kiraz village, around *Corylus* sp. stump, 40°54'N-40°15'E, 245 m, 07.07.2018, AK 5435.

116. *Russula medullata* Romagn.

Çamlı village, cemetery, among grass, 40°55'N-40°15'E, 217 m, 07.07.2018, AK 5427.

117. *Russula melzeri* Zvára

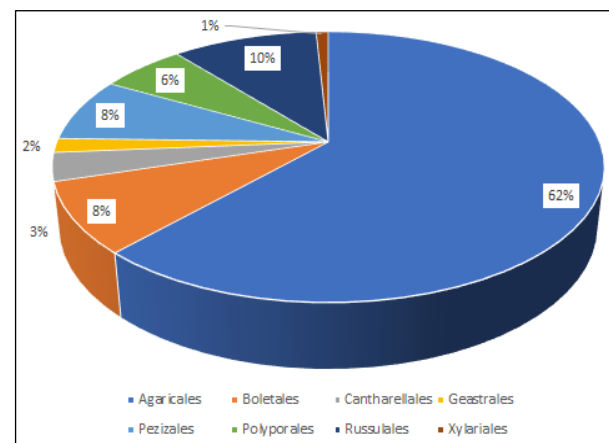
İrfanlı village, under deciduous trees, 40°56'N-40°15'E, 149 m, 07.07.2018, AK 5440.

118. *Russula paludosa* Britzelm.

Çamlı village, aronud highways nursing station, under *Pinus* sp., 40°55'N-40°16'E, 20 m, 07.07.2018, AK 5511.

#### 4. Discussions

One hundred and eighteen macromycete species were determined from the research area. Ten of the determined taxa (%8.5) belong to *Ascomycota* and 108 (%91.5) to *Basidiomycota*. The taxa are distributed in 3 classes (*Agaricomycetes* 108, *Pezizomycetes* 9, *Sordariomycetes* 1) and 8 orders. The order-wise distribution of the determined taxa is presented in Figure 2.



**Figure 2.** Orderwise distribution of the determined taxa.

The taxa are distributed in 38 families and 63 genera. Four of the determined 118 species are currently in *Incertae sedis* position. *Inocybaceae* and *Psathyrellaceae* are the most crowded families, each with 11 taxa while *Russulaceae* is the second with 10 taxa. *Amanitaceae*, *Helvellaceae* and *Polyporaceae* follow it, each with 6 taxa. *Marasmiaceae* and *Mycenaceae* comprise 5 taxa while *Entolomataceae* and *Omphalotaceae* comprise 4 taxa. In the region six families (*Agaricaceae*, *Boletaceae*, *Cantharellaceae*, *Hygrophoraceae*, *Paxillaceae*, *Physalacriaceae*) are represented with three taxa, seven families (*Bolbitiaceae*, *Cortinariaceae*, *Geastraceae*, *Lycoperdaceae*, *Strophariaceae*, *Suillaceae*, *Tubariaceae*) are represented with two taxa, while the rest of 14 families are represented with only one taxon.

The genus *Inocybe* was found to be the most crowded genus with 10 taxa. It is followed by *Amanita* with 6 taxa. *Helvella*, *Lactarius* and *Russula* are represented with 5

taxa, while *Entoloma*, *Marasmius* and *Trametes* are represented with 4 taxa. Four of the genera (*Coprinellus*, *Hygrocybe*, *Mycena*, *Psathyrella*) are represented with 3 taxa, and 12 of them (*Armillaria*, *Atheniella*, *Clavulina*,

*Clitocybe*, *Collybiopsis*, *Conocybe*, *Coprinopsis*, *Gastrum*, *Gymnopus*, *Lycoperdon*, *Paxillus*) are represented with 2 taxa while the other 39 genera are represented in the region with only one taxon.

**Table 1.** Similarity percentages of Çamlı village with the studies performed in neighboring regions

Neighboring study	# of Identical taxa	Total taxa	Similarity (%)
Sesli (1993)	11	64	17.19
Demirel et al. (2010)	17	126	13.49
Akata et al. (2014)	28	216	12.96
Keleş et al. (2014)	23	126	18.25
Akata and Uzun (2017)	42	212	19.81
Oruç et al. (2021)	43	109	39.45

Except *Mycena ustalis* (Keleş, 2019a), all of the determined species are new for the research area.

Thirty four of the taxa are edible, 72 are inedible while 12 are more or less poisonous. Local people generally have a suspicious attitude towards naturally growing mushrooms. Tough %28.33 of the determined taxa are edible, none of them are collected and consumed by the locals. The first author's expressions are also in the same way, as being a resident of the region.

The determined taxa were compared with the studies carried out in neighboring regions and some similarities were observed (Table 1). The reason for this similarity and

dissimilarity may be the common climate, vegetation and sampling period.

#### Conflict of Interest

Authors have declared no conflict of interest.

#### Authors' Contributions

The authors contributed equally.

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