

Contribution to the macrofungal diversity of Yozgat Province (Turkey)

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ABSTRACT — In this study, samples of microfungi collected from Yozgat (Turkey) between 2010-2014 were examined. A total of 195 taxa belonging to 45 families were identified, of which 20 represent *Ascomycota* and 175 represent *Basidiomycota*.

KEY WORDS — biodiversity, macromycetes, *Ascomycota*, *Basidiomycota*

Introduction

Macrofungi are one of the most widely distributed organisms in ecosystems. They have commercial importance which are used in various fields such as pharmacology, food industry and biodegradation (Stojchev et al. 1998). Approximately 70 000 species of fungi have been introduced to the literature however 1.5 million species are estimated to exist in nature (Hawksworth et al. 1995). The macromycota of Turkey have become popular, so that many studies have been conducted recently (Sesli 2014, Uzun et al. 2014, Akata & Doğan 2015, Akata & Heluta 2015, Doğan & Öztürk 2015, Güngör et al. 2015a, b, Kaya 2015, Kaya & Uzun 2015, Kaya et al. 2015, 2016, Sesli & Moreau 2015, Sesli et al. 2015a, b, 2016, Türkoğlu et al. 2015, Vizzini et al. 2015). The current macrofungal diversity of Turkey which is represented by 2158 species Sesli & Denchev (2008).

Yozgat Province is located in the middle of Turkey surrounded by Kayseri and Nevşehir in the south; Amasya, Çorum and Tokat in the north; Sivas in the east, and Kırıkkale and Kırşehir in the west (FIG. 1). Yozgat is generally under the influence of the semidry terrestrial climate. The average temperature is 9-10°C and rainfall is 578,71 kg/m² annually (Anonymous 2015). In general steppe vegetation is dominant through the province with local forest areas. Some of the plants common in the region are: *Pinus sylvestris* L., *Crataegus oxyacantha* L., *Populus tremula* L., *Pyrus elaeagnifolia* Pall., *Quercus cerris* L., *Acer campestre* L. subsp. *campestre.*, *Frangula alnus* Mill., *Cerasus mahaleb* (L.) Mil. subsp. *mahaleb* (Tamer et al. 2012).

Materials & methods

Macrofungi samples were collected from the area in Yozgat province between 2010 and 2014. Morphological and ecological characteristics of the specimens were recorded

and they were photographed at their natural habitats. After mushrooms were brought to the laboratory their spore prints were obtained and they were dried. Species identifications were performed by measuring macroscopic and microscopic features of the specimens. The following literature were used for identification; Phillips (1981), Moser (1983), Breitenbach & Kränzlin (1984–2000), Watling & Gregory (1987), Bon (1987), Buczacki (1989), Bresinsky & Besl (1990), Ellis & Ellis (1990), Jordan (1995), and Clémençon (2009). The identified fungi specimens are deposited in Fungarium of Biology Department of Gaziosmanpaşa University.

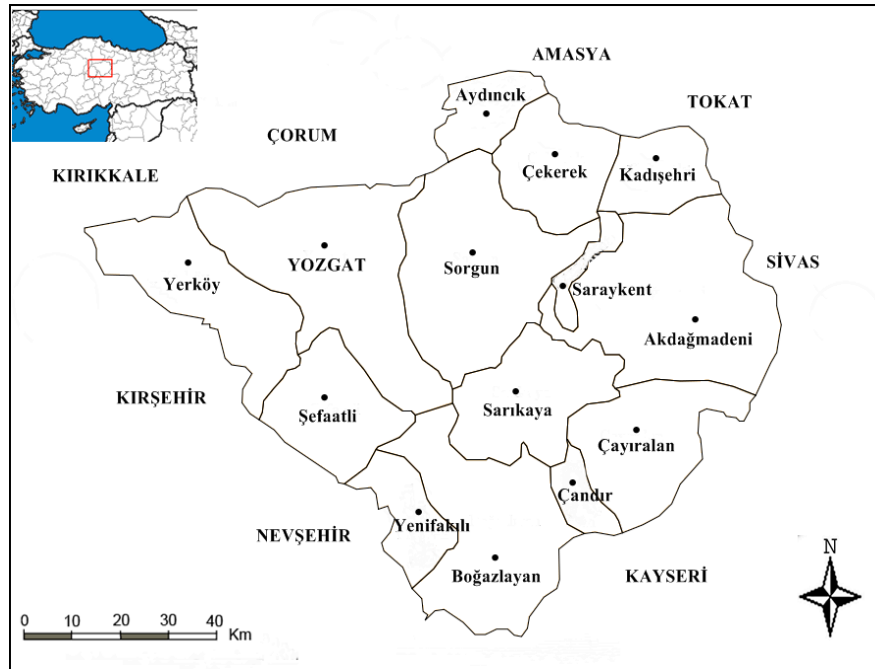


FIGURE 1. Macrofungi collection sites

Results

As a result of field and laboratory studies, 195 taxa belonging to 2 divisions and 45 families were identified. Among them, 20 taxa belong to *Ascomycota* and 175 taxa belong to *Basidiomycota*. The taxa have been identified with the specimens' according to the habitat, locality, collection date, and accession numbers and any of taxon were listed in alphabetical order. The systematics of the taxa are accordance with Index Fungorum (www.speciesfungorum.org; accessed 21 September 2015).

Ascomycota Caval. Sm.

Diatrypaceae Nitschke

1-*Diatrype disciformis* (Hoffm.) Fr.

On dead branches of deciduous trees, 17.06.2013, locality 49, ISIK 365; on the dead branch of mixed forest, 01.05.2014, locality 19, ISIK 477.

Discinaceae Benedix

2-*Discina perlata* (Pers.) Sacc.

In coniferous areas, 04.06.2011, locality 3, ISIK 57.

3-*Gyromitra esculenta* (Pers.) Fr.

In coniferous and deciduous woods, 27.05.2012, locality 7, ISIK 139; deciduous woods, 20.04.2014, locality 6, ISIK 479.

Helotiaceae Rehm

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

On the dead branch of broad leaved trees, 16.06.2013, locality 2, ISIK 342.

Helvellaceae Fr.

5-*Helvella acetabulum* (L.) Quél.

Amongst leaf litter in woods usually on calcareous soil, 27.05.2012, locality 10, ISIK 165; among needle and leaf litters in coniferous, 10.06.2014, locality 18, ISIK 645.

6-*Helvella lacunosa* Afzel.

In mixed woodland and orchards especially on burnt ground, 02.06.2012, locality 14, ISIK 185.

7- *Helvella leucomelaena* (Pers.) Nannf.

Open ground in woodland, 01.05.2014, locality 18, ISIK 473.

8- *Paxina queletii* (Bres.) Stangl

Amongst leaf litter in woods usually on calcareous soil, 17.06.2014, locality 6, ISIK 714.

Morchellaceae Rchb.

9-*Morchella angusticeps* Peck

Under *Populus* sp., 20.04.2014, locality 6, ISIK 469.

10-*Morchella costata* J.C. Schmidt & Kunze

In open scrub or woodland or on waste ground, 27.05.2012, locality 7, ISIK 90.

11-*Morchella elata* Fr.

Among grasses in *Pinus sylvestris* forest, 02.06.2012, locality 2, ISIK 187.

12- *Morchella esculenta* (L.) Pers.

In the open area of *Pinus sylvestris* forest, 20.04.2014, locality 6, ISIK 461.

Pezizaceae Dumort.

13-*Peziza arvernensis* Rose & Boud.

On open clay banks or paths, 03.05.2014, locality 18, ISIK 498.

14-*Peziza badia* Pers.

On open clay banks and paths, 27.05.2012, locality 4, ISIK 132; on the soil in *Quercus* sp., forest, 12.05.2014, locality 52, ISIK 539.

15- *Peziza fimeti* (Fuckel) Seaver

Among needle litters in *Pinus sylvestris* forest, 27.05.2012, locality 10, ISIK 133.

16- *Peziza phyllogena* Cooke

Among grasses in the open area of mixed forest, 20.04.2014, locality 9, ISIK 465.

17-*Peziza succosa* Berk.

On damp soil in woods, 02.06.2012, locality 14, ISIK 183.

18-*Sarcosphaera coronaria* (Jacq.) J. Schröt.

In clusters under coniferous and deciduous trees., 10.06.2012, locality 10, ISIK 227; among leaf litters in *Pinus sylvestris* forest, 01.05.2014, locality 18, ISIK 479.

Pyronemataceae Corda

19- *Geopora sumneriana* (Cooke) M. Torre

Under cedars, 03.05.2014, locality 18, ISIK 486.

Xylariaceae Tul. & C. Tul.

20- *Xylaria hypoxylon* (L.) Grev.

On the dead branch of tree, 06.11.2010, locality 10, ISIK 19.

Basidiomycota R.T. Moore

Agaricaceae Chevall.

- 21-*Agaricus arvensis*** Schaeff.
Among grasses in the open area of mixed forest, 27.05.2012, locality 9, ISIK 99; among grasses in the open area, 14.06.2014, locality 18, ISIK 687.
- 22-*Agaricus benesii*** (Pilát) Pilát
On animal dung, 27.05.2012, locality 17, ISIK 97.
- 23-*Agaricus bisporus*** (J.E. Lange) Imbach
In pastureland, 12.05.2014, locality 52, ISIK 540; in grass and pastureland, 18.05.2014, locality 5, ISIK 549; in grass and pastureland, 11.05.2014, locality 51, ISIK 536.
- 24-*Agaricus campestris*** L.
In pastureland, 17.06.2014, locality 6, ISIK 712; among grasses, 19.10.2014, locality 30, ISIK 738; in grass and pastureland, 11.05.2014, locality 34, ISIK 513; among grasses, 11.05.2015, locality 33, ISIK 507.
- 25- *Agaricus langei*** (F.H. Møller) F.H. Møller
Among grasses under *Quercus* sp., 14.06.2014, locality 18, ISIK 685.
- 26- *Agaricus moelleri*** Wasser
Among needle litters, 10.06.2014, locality 22, ISIK 623.
- 27- *Agaricus silvicola*** (Vittad.) Peck
Among grasses in the open area, 02.06.2012, locality 2, ISIK 186.
- 28- *Agaricus urinascens*** (Jul. Schäff. & F.H. Møller) Singer
Among leaf litters in mixed forest, 27.05.2012, locality 9, ISIK 121.
- 29-*Agaricus xanthodermus*** Genev.
In woods, meadows, 01.06.2014, locality 5, ISIK 602.
- 30-*Bovista nigrescens*** Pers.
In grass, 27.05.2012, locality 11, ISIK 134; among grasses in the open area of forest, 11.05.2014, locality 43, ISIK 512; among grass, 14.06.2014, locality 18, ISIK 673.
- 31- *Bovista plumbea*** Pers.
In grass and pastureland, 27.05.2012, locality 7, ISIK 136; in grass, 11.10.2013, locality 21, ISIK 428; in grass and pastureland, 17.06.2014; locality 10, ISIK 704.
- 32- *Coprinus comatus*** (O.F. Müll.) Pers.
Roadside in forest, 17.06.2013, locality 32, ISIK 360; among grasses 17.06.2013, locality 31, ISIK 359; in large numbers on roadsides, 11.05.2014, locality 34, ISIK 534; among rotten leaf litters, locality 38, ISIK 571; among leaf litters, 19.05.2014, locality 40, ISIK 555.

- 33-*Cyathus olla*** (Batsch) Pers.
Twigs and other organic debris, 06.11.2010, locality 10, ISIK 7.
- 34-*Cystoderma amianthinum*** (Scop.) Fayod
In coniferous woodland, 06.11.2010, locality 10, ISIK 10; among grasses in *Pinus sylvestris* forest, 17.06.2014, locality 6, ISIK 725.
- 35-*Cystoderma cinnabarinum*** (Alb. & Schwein.) Fayod
In coniferous forest, 17.06.2014, locality 6, ISIK 703.
- 36- *Echinoderma asperum*** (Pers.) Bon
Among leaf litters in mixed forest, 19.10.2014, locality 18, ISIK 751.
- 37-*Lepiota clypeolaria*** (Bull.) P. Kumm.
In mixed forest, 27.05.2012, locality 9, ISIK 98; in small groups in mixed woods, 02.06.2012, locality 2, ISIK 199.
- 38-*Lepiota cristata*** (Bolton) P. Kumm.
In woods, 06.11.2010, locality 4, ISIK 8; among grasses, 10.10.2013, locality 24, ISIK 442.
- 39- *Lepiota erminea*** (Fr.) P. Kumm.
In dense clusters in fields, 10.06.2012, locality 11, ISIK 236.
- 40-*Lepiota magnispora*** Murrill
Among leaf litters in mixed forest, 27.05.2012, locality 9, ISIK 122.
- 41-*Leucoagaricus leucothites*** (Vittad.) Wasser
Among grasses, 19.10.2014, locality 29, ISIK 754.
- 42-*Lycoperdon molle*** Velen.
Among needle litters, 06.11.2010, locality 10, ISIK 11.
- 43-*Lycoperdon nigrescens*** Wahlenb.
Among needle litters in mixed forest, 27.05.2012, locality 9, ISIK
- 44-*Lycoperdon perlatum*** Pers.
Woodland, 02.06.2012, locality 14, ISIK 197; woodland, 14.06.2014, locality 18, ISIK 672.
- 45-*Lycoperdon pratense*** Pers.
In grass and pastureland, 01.06.2014, locality 5, ISIK 598.
- 46-*Lycoperdon utriforme*** Bull.
Among needle litters, 16.10.2011, locality 10, ISIK 45; in grass and pastureland, 27.05.2012, locality 9, ISIK 104.
- 47-*Macrolepiota konradii*** (Huijsman ex P.D. Orton) M.M. Moser

Among leaf litters in mixed forest, 06.11.2010, locality 4, ISIK 16.

48-*Macrolepiota phaeodisca* Bellù

In mixed forest, 19.10.2014, locality 44, ISIK 747.

49-*Macrolepiota procera* (Scop.) Gray

In mixed forest, 17.06.2013, locality 49, ISIK 361; on the soil in *Quercus* sp. forest, 11.05.2014, locality 38, ISIK 537; on the soil in *Pinus sylvestris* forest, 10.06.2014, locality 31, ISIK 651; compost heaps, 19.10.2014, locality 40, ISIK 758; in the mixed forest, 14.06.2014, locality 18, ISIK 683.

50-*Panaeolus foeniseeii* (Pers.) J. Schröt

In pastureland, 03.05.2014, locality 18, ISIK 501; in pastureland, 07.05.2013, locality 45, ISIK 300.

51-*Panaeolus sphinctrinus* (Fr.) Quéf.

Among grasses in the place rich with dunk, 27.05.2012, locality 4, ISIK 125.

52-*Tulostoma brumale* Bertero

In sandy calcareous soil or dunes usually amongst moss, locality 18, ISIK 460.

Auriculariaceae Fr. ex Lindau

52-*Auricularia auricula-judae* (Bull.) J. Schröt.

In branches of frondose trees, 18.05.2013, locality 27, ISIK 326; on branches of frondose trees, 18.05.2014, locality 12, ISIK 550.

53-*Auricularia mesenterica* (Dicks.) Pers.

On stumps and logs of deciduous trees, 03.05.2014, locality 18, ISIK 505.

54-*Exidia glandulosa* (Bull.) Fr.

On dead wood of deciduous trees, 03.05.2014, locality 19, ISIK 500; on dead wood of deciduous trees, 18.05.2014, locality 54, ISIK 545.

55-*Exidia recisa* (Ditmar) Fr.

On dead wood of deciduous trees, 18.05.2013, locality 22, ISIK 324; on dead wood of *Quercus* sp., 01.05.2014, locality 19, ISIK 480.

Auriscalpiaceae Maas Geest

56-*Auriscalpium vulgare* Gray

On buried decaying pine cones, 06.11.2010, locality 9, ISIK 3; on buried decaying pine cones, 12.05.2013, locality 35, ISIK 313; on buried decaying pine cones, 10.10.2013, locality 27, ISIK 446.

Bankeraceae Donk

57-*Sarcodon imbricatum* (L.) P. Karst.

Coniferous woods, 16.06.2013, locality 2, ISIK 341; in mixed forest, 13.06.2011, locality 41, ISIK 45.

Boletaceae Chevall.

58-*Boletus edulis* Bull.

In mixed woodland, 01.06.2014, locality 15, ISIK 581; in mixed forest, 14.06.2014, locality 20, ISIK 680.

59-*Boletus luridus* Viv.

In mixed forest, 27.05.2012, locality 9, ISIK 109; among leaf litters in *Quercus* sp. forest, 18.05.2014, locality 12, ISIK 551.

60-*Boletus subtomentosus* L.

Among grasses under the tree in mixed forest, 27.05.2012, locality 9, ISIK 127; in broad-leaved and mixed woods, 14.06.2014, locality 18, ISIK 688.

61-*Leccinum aurantiacum* (Bull.) Gray

In broad-leaved and mixed woods, 10.06.2014, locality 30, ISIK 640.

62-*Leccinum scabrum* (Bull.) Gray

In grassy oak woods, 10.06.2012, locality 1, ISIK 228; in mixed forest, 12.05.2013, locality 35, ISIK 316.

63-*Xerocomellus chrysenteron* (Bull.) Šutara

With broad-leaved trees, 27.05.2012, locality 7, ISIK 129; in *Pinus nigra* forest, 18.05.2014, locality 54, ISIK 547.

Amanitaceae R. Heim ex Pouzar

64-*Amanita pantherina* (DC.) Krombh.

In coniferous or deciduous woodland especially beech. 14.06.2014, locality 19, ISIK 686.

65-*Amanita rubescens* Pers.

In coniferous and deciduous woodland, 16.06.2013, locality 16, ISIK 258.

66-*Amanita vaginata* (Bull.) Lam.

In deciduous woods, or on heaths, 27.05.2012, locality 7, ISIK 119; mixed forest, 29.05.2014, locality 37, ISIK 577; among leaf litters under *Quercus* sp., 14.06.2014, locality 18, ISIK 67.

Bolbitiaceae Singer

67-*Bolbitius titubans* (Bull.) Fr.

Among leaf litters in the open area of mixed forest, 03.05.2014, locality 18, ISIK 497.

68-*Conocybe pubescens* (Gillet) Kühner

On lawns, roadsides, sawdust and sand-dunes, 10.06.2014, locality 24, ISIK 641.

69-*Conocybe rickenii* (Jul. Schäff.) Kühner

On rich soil, compost heaps or dung, 16.06.2013, locality 23, ISIK 340.

Clavariaceae Chevall.

70-*Clavaria acuta* Sowerby

Among needle litters in *Pinus nigra* forest, 29.05.2014, locality 37, ISIK 561

Clavulinaceae Donk

71-*Clavulina cristata* (Holmsk.) J. Schröt.

Terrestrial in frondose and coniferous woods, 10.06.2012, locality 10, ISIK 222.

72-*Clavulina rugosa* (Bull.) J. Schröt.

Terrestrial, in woods, 17.06.2014, locality 4, ISIK 701.

Cortinariaceae R. HeimexPouzar

73-*Cortinarius biformis* Fr.

Among leaf litters, 06.11.2010, locality 10, ISIK 11.

74-*Cortinarius croceus* (Schaeff.) Gray

Under beech, 27.05.2012, locality 7, ISIK 121; among needle litters in *Pinus sylvestris* forest, 02.06.2012, locality 14, ISIK 209.

75-*Cortinarius decipiens* var. *decipiens* (Pers.) Fr.

In conifer woods, 06.11.2010, locality 10, ISIK 29.

76-*Cortinarius trivialis* J.E. Lange

In mixed forest, 29.05.2014, locality 37, ISIK 558; among leaf litters, 10.06.2014, locality 21, ISIK 614; on the soil in the mixed forest, 14.06.2014, locality 18, ISIK 683.

77-*Cortinarius uraceus* Fr.

Deciduous woods, 17.06.2014, locality 6, ISIK 709.

Diplocystaceae Kreisel

78-*Astraeus hygrometricus* (Pers.) Morgan

Sandy soil in woods, 27.05.2012, locality 10, ISIK 123; on the sandy soil in *Quercus* sp. forest, 01.05.2014, locality 20, ISIK 471.

Geastraceae Corda

79-*Geastrum coronatum* Pers.

On the soil, 06.11.2010, locality 10, ISIK 14.

80-*Geastrum triplex* Jungh.

Among leaf litters in mixed forest, 14.05.2011, locality 34, ISIK 38; in mixed forest, 06.11.2010, locality 9, ISIK 17.

Gomphaceae Donk

81-*Ramaria flava* (Schaeff.) Quél.

In mixed forest, 27.05.2012, locality 10, ISIK 108; in mixed forest, 10.10.2013, locality 27, ISIK 429.

Gomphidiaceae Maire ex Jülich

82-*Chroogomphus rutilus* (Schaeff.) O.K. Mill.

In moss under conifers, 27.05.2012, locality 8, ISIK 115; among needle litters in *Pinus sylvestris* forest, 03.05.2014, locality 18, ISIK 497.

83-*Gomphidius glutinosus* (Schaeff.) Fr.

Among leaf litters in mixed forest, 06.11.2010, locality 9, ISIK 12.

Hydnaceae Chevall.

84-*Hydnum repandum* L.

Among leaf litters in mixed forest, 14.05.2011, locality 34, ISIK 39; in mixed forest, 05.10.2013, locality 9, ISIK 418.

Hydnangiaceae Gäum. & C.W. Dodge

85-*Laccaria bicolor* (Maire) P.D. Orton

Among shrubs in *Pinus nigra* forest, 29.05.2014, locality 54, ISIK 565.

86-*Laccaria laccata* (Scop.) Cooke

Among leaf litters in mixed forest, 27.05.2012, locality 9, ISIK 94; mixed woods, 02.06.2012, locality 16, ISIK 180; roadside in *Pinus sylvestris* forest, 10.06.2014, locality 29, ISIK 633.

Hygrophoraceae Lotsy

87-*Hygrocybe acutoconica* (Clem.) Singer

Among grasses in mixed forest, 10.10.2013, locality 24, ISIK 450; among grasses, 01.06.2014, locality 15, ISIK 608.

88-*Hygrocybe conica* (Schaeff.) P. Kumm.

Among grasses in the open area of mixed forest, 14.05.2011, locality 42, ISIK 33; among grasses, 27.05.2012, locality 9, ISIK 95.

89-*Hygrophorus eburneus* (Bull.) Fr.

Among leaf litters in *Pinus sylvestris* forest, 14.06.2014, locality 18, ISIK 682.

90-*Hygrophorus persoonii* Arnolds

Amongst grass on lawns, 17.06.2013, locality 49, ISIK 410; among leaf litters, 01.05.2014, locality 18, ISIK 475.

Hymenochaetaceae Imazeki & Toki

91-*Coltricia perennis* (L.) Murrill

In coniferous woods, 02.06.2012, locality 6, ISIK 177.

Hymenogastraceae Vittad.

92-*Galerina marginata* (Batsch) Kühner

On dead pine stump, 18.05.2013, locality 21, ISIK 322; on dead pine stump 13.06.2011, locality 36, ISIK 53.

93-*Hebeloma bruchetii* Bon

Among bushes in mixed forest, locality 9, ISIK 6; roadside among leaf litter in *Quercus* sp. forest, 01.06.2014, locality 15, ISIK 593.

94-*Hebeloma crustuliniforme* (Bull.) Quél.

Among needle and cone litters in *Pinus sylvestris* forest, 02.06.2012, locality 14, ISIK 176; in the bushes area, 14.06.2014, locality 18, ISIK 675; under trees, 10.06.2014, locality 30, ISIK 627.

95-*Hebeloma mesophaeum* (Pers.) Quél.

Damp woodland, 16.01.2012, locality 7, ISIK 55; in the open area of *Pinus sylvestris* forest, 10.06.2014, locality 30, ISIK 638.

96-*Hebeloma laterinum* (Batsch) Vesterh.

In deciduous and mixed woods, 11.05.2014, locality 54, ISIK 516; among tree litters in *Pinus sylvestris* forest, 10.06.2014, locality 30, ISIK 639.

97-*Hebeloma sinapizans* (Paulet) Gillet

In deciduous and mixed woods, 14.05.2011, locality 12, ISIK 31; in deciduous and mixed woods, 11.05.2014, locality 43, ISIK 532.

98-*Hebeloma sordescens* Vesterh.

Grassy coniferous woods, 02.06.2012, locality 2, ISIK 175; mixed woods, 10.06.2014, locality 29, ISIK 642; mixed woods 07.05.2013, locality 46, ISIK 308.

Incertae Sedis

99-*Panaeolus foeniseii* J. Schröt

In pastureland, 03.05.2014, locality 18, ISIK 501; in pastureland, 07.05.2013, locality 45, ISIK 300.

100-*Panaeolus sphinctrinus* (Fr.) Quél.

Among grasses in the place rich with dunk, 27.05.2012, locality 4, ISIK 125.

Inocybaceae Jülich

101-*Inocybe bongardii* (Weinm.) Quél.

Coniferous and deciduous woods, 11.05.2014, locality 28, ISIK 533.

102-*Inocybe nitidiuscula* (Britzelm.) Lapl.

Mixed woods, 27.05.2012, locality 5, ISIK 64; in damp deciduous, 02.06.2012, locality 6, ISIK 167.

103-*Inocybe pallida* Velen.

In deciduous woods, 29.05.2014, locality 37, ISIK 580; in deciduous woods, 10.10.2013, locality 24, ISIK 424.

104-*Inocybe praetervisa* Quél.

Mixed woods and often under beech, 16.06.2013, locality 2, ISIK 357; mixed woods, 10.06.2014, locality 29, ISIK 630.

105-*Phaeomarasmium erinaceus* (Fr.) Scherff. ex Romagn

On rotten branch of *Quercus* in mixed forest, 06.11.2010, locality 9, ISIK 23.

Marasmiaceae Roze ex Kühner

106-*Marasmius oreades* (Bolton) Fr.

Among grasses, 02.06.2012, locality 3, ISIK 178; among grasses in the open area of *Pinus sylvestris* forest, 03.05.2014, locality 19, ISIK 493; in grass and pastureland, 10.06.2014, locality 29, ISIK 626; among grasses, 18.05.2014, locality 58, ISIK 554.

107-*Marasmius rotula* (Scop.) Fr.

Gregarious on dead twigs and roots, 03.05.2014, locality 18, ISIK 491; on rotten tree litter in mixed forest, 27.05.2012, locality 9, ISIK 102.

108-*Marasmius wynneae* Berk. & Broome

On mosses, 06.11.2010, locality 10, ISIK 20; among grasses, 07.5.2013, locality 45, ISIK 340.

Mycenaceae Overeem**109-*Hemimycena pseudocrispula*** (Kühner) Singer

Among grasses in the open area of mixed forest, locality 9, ISIK 157.

110-*Mycena atroalba* (Bolton) Gray

On the soils in mixed forest, 06.11.2010, locality 9, ISIK 36; among leaf litter in *Quercus* sp. forest, 19.10.2014, locality 20, ISIK 772.

111-*Mycena epipterygia* (Scop.) Gray

Among needle litters, 06.11.2010, locality 10, ISIK 29; among leaf litters in mixed forest, 05.10.2013, locality 9, ISIK 415.

112-*Mycena filopes* J.E. Lange

In mixed woodland, 18.05.2014, locality 54, ISIK 548.

113-*Mycena galericulata* (Scop.) Gray

In fallen branches of broad-leaved trees, 03.05.2014, locality 18, ISIK 489; on rotten stump in *Quercus* sp. forest, 19.10.2014, locality 20, ISIK 767.

114-*Mycena galopus* (Pers.) P. Kumm.

On needle and cone litters in mixed forest, 27.05.2012, locality 9, ISIK 103; on needle and cone litters in mixed forest, 11.05.2014, locality 54, ISIK 528.

115-*Mycena inclinata* (Fr.) Quéf.

On tree litter, 27.05.2012, locality 9, ISIK 93; in dense tufts on oak stumps, 10.10.2013, locality 12, ISIK 422; on oak stumps, 03.05.2014, locality 19, ISIK 488; in beech litter, 07.05.2013, locality 45, ISIK 298.

116-*Mycena pura* (Pers.) P. Kumm.

Among needle and cone litters, 27.05.2012, locality 7, ISIK 107; in beech litter, 02.06.2012, locality 6, ISIK 214; in mixed forest, 10.10.2013, locality 24, ISIK 451.

117-*Xeromphalina caudicinalis* (Fr.) Kühner & Maire

Among needle litters, 06.11.2010, locality 10, ISIK 13; on conifer debris, 10.06.2014, locality 30, ISIK 631.

Omphalotaceae Bresinsky**118-*Gymnopus androsaceus*** (L.) Della Maggiora & Trassinelli

On twigs, needles, leaves, 14.06.2014, locality 18, ISIK 663.

119-*Gymnopus dryophilus* (Bull.) Murrill

Among leaf litters in mixed forest, 27.05.2012, locality 9, ISIK 131; in mixed forest, 13.06.2011, locality 36, ISIK 49; in lawns and pastureland,

10.06.2014, locality 29, ISIK 612; in mixed forest, 17.06.2014, locality 12, ISIK 689.

120-*Collybia butyracea* var. *asema* (Fr.) Cetto

On leaf litters in mixed forest, 14.06.2014, locality 18, ISIK 662.

121-*Gymnopus ocior* (Pers.) Antonín & Noordel.

In mixed woodlands, 17.06.2014, locality 6, ISIK 727.

Paxillaceae Lotsy

122-*Paxillus involutus* (Batsch) Fr.

In broad-leaved woodland, 10.06.2012, locality 10, ISIK 223; in broad-leaved woodland, 10.06.2014, locality 30, ISIK 655.

Physalacriaceae Corner

123-*Armillaria mellea* (Vahl) P. Kumm.

On rotten stump in mixed forest, 06.11.2010, locality 9, ISIK 42; on rotten stump, 13.06.2011, locality 37, ISIK 43.

124-*Flammulina velutipes* (Curtis) Singer

On rotten stump in mixed forest, 06.11.2010, locality 9, ISIK 27.

125-*Hymenopellis radicata* (Relhan) R.H. Petersen

Near the beech, 14.05.2011, locality 42, ISIK 35; in mixed forest, 03.05.2014, locality 18, ISIK 490; on rotten stump in mixed forest 13.06.2011, locality 36, ISIK 54.

126-*Strobilurus tenacellus* (Pers.) Singer

Pleurotaceae Kühner

127-*Pleurotus eryngii* (DC.) Qué.

On roots and decaying remains of umbellifers, especially *Eryngium*, 06.11.2010, locality 9, ISIK 47; decaying remains of *Eryngium*, 19.10.2014, locality 29, ISIK 771.

128-*Pleurotus ostreatus* (Jacq.) P. Kumm.

On the stump, 06.11.2010, locality 10, ISIK 15; in large clusters on stumps, 10.10.2013, locality 25, ISIK 441; in large clusters on stumps, 19.10.2014, locality 29, ISIK 760.

Pluteaceae Kotl. & Pouzar

129-*Pluteus cervinus* (Schaeff.) P. Kumm.

On the pine stump in mixed forest, 01.06.2014, locality 9, ISIK 607.

130-*Pluteus petasatus* (Fr.) Gillet

On the pine stump in *Pinus nigra* forest, 11.05.2014, locality 54, ISIK 524.

131-*Pluteus phlebophorus* (Ditmar) P. Kumm.

On the tree stump, 03.05.2014, locality 18, ISIK 494.

132-*Pluteus romellii* (Britzelm.) Sacc.

On deciduous wood., 27.05.2012, locality 11, ISIK 141.

133-*Volvopluteus gloiocephalus* (DC.) Vizzini, Contu & Justo

Dead frondose trees, 10.06.2014, locality 29, ISIK 622.

Polyporaceae Fr. ex Corda

134-*Dichomitus campestris* (Quél.) Domanski & Orlicz

On dead branch of *Pinus nigra*, 11.05.2014, locality 54, ISIK 531.

135-*Lentinus brumalis* (Pers.) Zmitr.

On dead branch of *Quercus* sp., 10.10.2013, locality, 39 ISIK 419; in mixed forest, 13.06.2011, locality 41, ISIK 51; on dead branch, 01.05.2014, locality 18, ISIK 481; on branch of tree in mixed forest, 20.04.2014, locality 9, ISIK 464.

136-*Polyporus squamosus* (Huds.) Fr.

On rotten stump in *Quercus* sp., 18.05.2014, locality 12, ISIK 546; on poplar stump, locality 18, ISIK 582; on poplar stump, 12.05.2014, locality 53, ISIK 542.

137-*Pycnoporus cinnabarinus* (Jacq.) P. Karst.

On dead branch, 06.11.2010, locality 9, ISIK 43; on dead branch in *Quercus* sp, 19.10.2014, locality 44, ISIK 773.

138-*Trametes versicolor* (L.) Lloyd

On deciduous wood, 13.06.2011, locality 41, ISIK 44; on deciduous wood, 03.05.2014, locality 18, ISIK 509; on rotten branch of tree, 11.05.2014, locality 38, ISIK 525; on deciduous wood, 01.05.2014, locality 33, ISIK 478.

Psathyrellaceae Vilgalys, Moncalvo & Redhead

139-*Coprinellus micaceus* (Bull.) Vilgalys

In dense tufts around stumps, 27.05.2012, locality 10, ISIK 106; around the tree stump, 10.10.2013, locality 24, ISIK 432; around the tree stump,

11.05.2014, locality 56, ISIK 521; near rotten stump, locality 55,
29.05.2014, ISIK 572.

140-*Coprinopsis atramentaria* (Bull.) Redhead

In clusters on the ground near rotting, 02.06.2012, locality 14, ISIK 160; in
pastureland, 13.06.2011, locality 36, ISIK 46; oburied wood, 10.06.2014,
locality 29, ISIK 636.

141-*Coprinopsis lagopus* (Fr.) Redhead

In leaf litter in shady woods, 27.05.2012, locality 9, ISIK 105; in shady
woods, 10.06.2014, locality 29, ISIK 613.

142-*Coprinopsis nivea* (Pers.) Redhead

On dunk in the grass area, 03.05.2014, locality 18, ISIK 495.

143-*Coprinopsis picacea* (Bull.) Redhead

On alkaline soil and in beech woods, 17.06.2013, locality 49, ISIK 411; in
beech woods, 19.10.2014, locality 29, ISIK 763.

144-*Parasola plicatilis* Redhead, Vilgaley & Hople

In the place rich with dunk, 19.10.2014, locality 29, ISIK 757; among leaf
litters in grasses area under trees, 19.05.2014, locality 40, ISIK 556.

145-*Psathyrella candolleana* (Fr.) Maire

Near deciduous trees, 10.06.2012, locality 4, ISIK 235; in pastureland,
10.10.2013, locality 26, ISIK 427; in manured places, 20.04.2014, locality
9, ISIK 472; among the tree litter, 29.05.2014, locality 54, ISIK 567.

146-*Psathyrella spadiceogrisea* (Schaeff.) Maire

Near deciduous trees, 18.05.2014, locality 37, ISIK 552.

Rhizopogonaceae Gäum. & C.W. Dodge

147-*Rhizopogon luteolus* Krombh.

Sandy conifer woods, 11.05.2014, locality 54, ISIK 515; sandy conifer
woods, 01.06.2014, locality 18, ISIK 584; sandy conifer woods,
07.05.2013, locality 46, ISIK 307.

148-*Rhizopogon roseolus* (Corda) Th. Fr.

Under conifers and under pine, 27.05.2012, locality 7, ISIK 111; under
conifers and under pine, 01.05.2014, locality 18, ISIK 476.

Russulaceae Lotsy

149-*Lactarius acerrimus* Britzelm

Mixed deciduous and coniferous woods, 10.10.2013, locality 38, ISIK 450; coniferous woods, 10.06.2014, locality 44, ISIK 616; in mixed forest, 07.05.2013, locality 45, ISIK 312.

150-*Lactarius deliciosus* (L.) Gray

Under pines and spruce, 13.06.2011, locality 41, ISIK 47; under pines, 18.05.2013, locality 23, ISIK 328; under pines and spruce, 27.05.2012, locality 10, ISIK 114; among shrubs in *Pinus nigra* forest, 29.05.2014, locality 54, ISIK 578.

151-*Lactarius sanguifluus* (Paulet) Fr.

On the soil in *Pinus sylvestris* forest, 10.06.2014, locality 29, ISIK 617; among leaf litters in *Quercus* sp. forest, 14.06.2014, locality 18, ISIK 670; among leaf litters in *Quercus* sp. forest, 17.06.2014, locality 12, ISIK 690.

152-*Lactarius semisanguifluus* R. Heim & Leclair

On the soil in *Pinus sylvestris* forest, 10.06.2014, locality 29, ISIK 650.

153-*Lactarius zonarius* (Bull.) Fr.

Deciduous woods and with oak, 10.10.2013, locality 39, ISIK 437; deciduous woods, especially with oak, 01.05.2014, locality 25, ISIK 451; deciduous woods, 07.05.2013, locality 46, ISIK 311.

154-*Russula albonigra* (Krombh.) Fr.

On the soil in *Quercus* sp. forest, 14.06.2014, locality 18, ISIK 658; among pine needle in *Pinus sylvestris* forest, 17.06.2014, locality 6, ISIK 711.

155-*Russula aurea* Pers.

On the soil in *Pinus sylvestris* forest, 10.06.2012, locality 13, ISIK 234.

156-*Russula claroflava* Grove

Among leaf litters in *Pinus sylvestris* forest, 14.06.2014, locality 18, ISIK 677; in broad-leaved woods, 12.05.2013, locality 25, ISIK 315.

157-*Russula emetica* (Schaeff.) Pers.

In broad-leaved woods, 27.05.2012, locality 11, ISIK 96; in broad-leaved woods, 10.06.2014, locality 39, ISIK 618.

158-*Russula exalbicans* (Krapf) Melzer

In broad-leaved woods, 27.05.2012, locality 13, ISIK 117.

159-*Russula maculata* Quél. & Roze

Among pine litters in *Pinus sylvestris* forest, 27.05.2012, locality 29, ISIK 124; roadside on the soil in *Pinus sylvestris* forest, 14.06.2014, locality 18, ISIK 678.

160-*Russula rosea* Kill.

Under conifers, 14.05.2011, locality 34, ISIK 30; in mixed forest, 02.06.2012, locality 14, ISIK 189; in mixed forest, 14.06.2014, locality 18, ISIK 667.

161-*Russula vinosa* Lindblad

Under beech, 27.05.2012, locality 7, ISIK 112; in mixed forest, 02.06.2012, locality 14, ISIK 218.

Schizophyllaceae Quéf.

162-*Schizophyllum commune* Fr.

On dead branch of broadleaved trees in *Quercus* sp., 10.10.2013, locality 26, ISIK 425; on the rotten tree stump, 17.06.2013, locality 49, ISIK 362; on the tree stump, 01.05.2014, locality 18, ISIK 474; on the rotten tree stump, 12.05.2014, locality 52, ISIK 538; on the tree stump, 19.05.2014, locality 58, ISIK 557.

Sclerodermataceae Corda

163-*Pisolithus arhizus* (Scop.) Rauschert

Roadside on sandy soil, 06.11.2010, locality 9, ISIK 13; roadside on sandy soil, 18.05.2013, locality 22, ISIK 321; roadside on stony and sandy soil, 19.10.2014, locality 29, ISIK 766.

Stereaceae Pilát

164-*Stereum hirsutum* (Willd.) Pers.

On rotten stump, 10.10.2013, locality 39, ISIK 445; on the stump, 01.05.2014, locality 18, ISIK 483; on dead branch in *Quercus* sp. forest, 01.05.2014, locality 23, ISIK 484; on the stump, 12.05.2013, locality 35, ISIK 314; on the stump, 29.05.2014, locality 54, ISIK 568.

Strophariaceae Singer & A.H. Sm.

165-*Cyclocybe aegerita* (V. Brig.) Vizzini

On *Populus* sp. stump, 04.11.2012, locality 6, ISIK 246; on the rotten tree stump, 07.05.2013, locality 46, ISIK 309.

166-*Agrocybe pediades* (Fr.) Fayod

Among grass, 03.05.2014, locality 18, ISIK 504; among grass in *Pinus sylvestris* forest, 11.05.2014, locality 43, ISIK 530.

167-*Agrocybe praecox* (Pers.) Fayod

Amongst grass, 27.05.2012, locality 8, ISIK 118; in shady places, 01.06.2014, locality 5, ISIK 601.

168-*Agrocybe vervacti* (Fr.) Singer

In marshy meadows, 02.06.2012, locality 6, ISIK 201; amongst grass, 01.06.2014, locality 5, ISIK 592.

169-*Hypholoma capnoides* (Fr.) P. Kumm.

Conifer stumps, 06.11.2010, locality 9, ISIK 5.

170-*Hypholoma fasciculare* (Huds.) P. Kumm.

In dense clusters on stumps of deciduous, 06.11.2010, locality 13, ISIK 1; conifer stumps, 02.06.2012, locality 2, ISIK 202; in mixed forest, 10.10.2013, locality 27, ISIK 433.

171-*Hypholoma lateritium* (Schaeff.) P. Kumm.

On tree stump in *Pinus sylvestris* forest, 14.06.2014, locality 18, ISIK 676.

172-*Pholiota lucifera* (Lasch) Quél.

In dense clusters on stumps, 06.11.2010, locality 9, ISIK 26.

173-*Stropharia aeruginosa* (Curtis) Quél.

Woods and pastures, locality 10, ISIK 92; mixed forest, 10.06.2014, locality 29, ISIK 621; in mixed forest, 10.10.2013, locality 27, ISIK 436.

174-*Stropharia coronilla* (Bull.) Quél

Lawns and pasture, 18.05.2013, locality 21, ISIK 331; among grasses, 03.05.2014, locality 18, ISIK 499; among grasses in the open area, 11.05.2014, locality 54, ISIK 517.

Suillaceae (Singer) Besl & Bresinsky**175-*Suillus granulatus*** (L.) Roussel

With conifers, 14.05.2011, locality 10, ISIK 51; among leaf litters in *Pinus sylvestris* forest, 03.05.2014, locality 18, ISIK 511.

176-*Suillus luteus* (L.) Roussel

Among needle litters in *Pinus sylvestris* forest, 14.05.2011, locality 11, ISIK 36; under *Pinus sylvestris*, 04.06.2011, locality 3, ISIK 58; with conifers, 11.05.2014, locality 54, ISIK 514; in mixed forest, 07.05.2013, locality 46, ISIK 306.

Thelephoraceae Chevall.**177-*Thelephora caryophyllea*** (Schaeff.) Pers.

On the ground in hardwood forests, 27.05.2012, locality 17, ISIK 142; on the ground in hardwood forests, 02.06.2012, locality 2, ISIK 203.

Tremellaceae Fr.

178-*Tremella mesenterica* Retz.

On dead deciduous branches, 27.05.2012, locality 7, ISIK 113; on dead deciduous branches, 12.05.2013, locality 25, ISIK 319; on dead deciduous branches, 01.05.2014, locality 25, ISIK 444.

Tricholomataceae R. Heim

179-*Arrhenia spathulata* (Fr.) Redhead

On damp mossy ground, 10.10.2013, locality 27, ISIK 423; on damp mossy ground, 17.06.2014, locality 6, ISIK 722.

180-*Atractosporocybe inornata* (Sowerby) P. Alvarado, G. Moreno & Vizzini

Among leaf litters in *Quercus* sp. forest, 19.10.2014, locality 22, ISIK 753.

181-*Bonomyces sinopicus* (Fr.) Vizzini

In coniferous woods, 27.05.2012, locality 7, ISIK 101; in mixed forest, 07.05.2013, locality 45, ISIK 302.

182-*Clitocybe odora* (Bull.) P. Kumm.

Among bushes in mixed forest, 06.11.2010, locality, ISIK 9; in mixed forest, 18.05.2013, locality 22, ISIK 329; among leaf litters in *Quercus* sp. forest, 19.10.2014, locality 44, ISIK 761; on leaf litter under oak, 17.06.2014, locality 20, ISIK 699.

183-*Infundibulicybe geotropa* (Bull.) Harmaja

In open deciduous and mixed woodland, 17.06.2013, locality 49, ISIK 412; among bushes in *Quercus* sp. forest, 19.10.2014, locality 29, ISIK 743.

184-*Lepista irina* (Fr.) H.E. Bigelow

In open woodland, 11.05.2014, locality 43, ISIK 529; among grasses in the open area of *Pinus sylvestris* forest, 14.06.2014, locality 18, ISIK 664.

185-*Lepista nuda* (Bull.) Cooke

In woodland, 14.05.2011, locality 10, ISIK 38; among bushes in mixed forest, 27.05.2012, locality 9, ISIK 116; in coniferous woods, 10.10.2013, locality 36, ISIK 420; in coniferous woods, 19.10.2014, locality 27, ISIK 774; under *Populus* sp., 18.05.2013, locality 25, ISIK 330.

186-*Leucopaxillus gentianeus* (Qué.) Kotl.

Under conifers, 10.06.2012, locality 10, ISIK 224; under conifers, 10.06.2016, locality 21, ISIK 644.

187-*Melanoleuca graminicola* (Velen.) Kühner & Mair

Among grasses, 06.11.2010, locality 10, ISIK 2.

188-*Melanoleuca melaleuca* (Pers.) Murrill

Deciduous woods, 03.05.2014, locality 18, ISIK 502.

189-*Melanoleuca paedida* (Fr.) Kühner & Maire

Amongst grass in open woodland, 18.05.2014, locality 54, ISIK 543.

190-*Tricholoma evenosum* (Sacc.) Rea

Among needle litters, 06.11.2010, locality 10, ISIK 18.

191-*Tricholoma fracticum* (Britzelm.) Kreisel

In deciduous and mixed woods, 02.06.2012, locality 2, ISIK 143; in

deciduous and mixed woods, 11.05.2014, locality 54, ISIK 522.

192-*Tricholoma sculpturatum* (Fr.) Quél.

In pine or beech woods, 10.06.2012, locality 10, ISIK 226.

193-*Tricholoma terreum* (Schaeff.) P. Kumm.

Under conifers, 14.05.2011, locality 42, ISIK 37; under conifers, 27.05.2012, locality 7, ISIK 126; in woods, especially with conifers, 11.05.2014, locality 43, ISIK 535; under conifers 12.05.2013, locality 35, ISIK 318; under conifers, 07.05.2013, locality 46, ISIK 310.

194-*Tricholoma ustale* (Fr.) P. Kumm.

Deciduous woods, especially beech, 18.05.2013, locality 27, ISIK 323; in mixed forest, 03.05.2014, locality 18, ISIK 506; deciduous woods, especially beech, 18.05.2014, locality 54, ISIK 544.

195-*Tricholomopsis rutilans* (Schaeff.) Singer

Around conifer stumps, 02.06.2012, locality 6, ISIK 208.

Discussion

In the present study totally 195 taxa belonging to 45 families were identified (FIG. 2). Most of the determined species belong to the families *Agaricaceae* (15.3%), *Tricholomataceae* (12.8%), *Strophariaceae* (8.7%) and *Russulaceae* (7.1%). *Morchella angusticeps*, *Morchella conica*, *Morchella costata*, *Morchella elata*, *Morchella vulgaris*, *Agaricus bisporus*, *Agaricus campestris*, *Macrolepiota procera*, *Amanita vaginata*, *Marasmius oreades*, *Lepista nuda*, *Boletus edulis*, *Suillus luteus*, *Ramaria flava*, *Lactarius deliciosus* are known and consumed by the local people in the region. Among these taxa, *Morchella conica*, *Morchella elata* and *Morchella esculenta* are the most popular one, which are also exported.

Similarities between our results and those of the other studies around Yozgat province were presented in the TABLE 1. Most probably the common climate and vegetation in the region brings about this kind of similarity.

In this study, the macrofungal diversity of the region was determined as well as contributions to the knowledge of macromycota of Turkey were made.

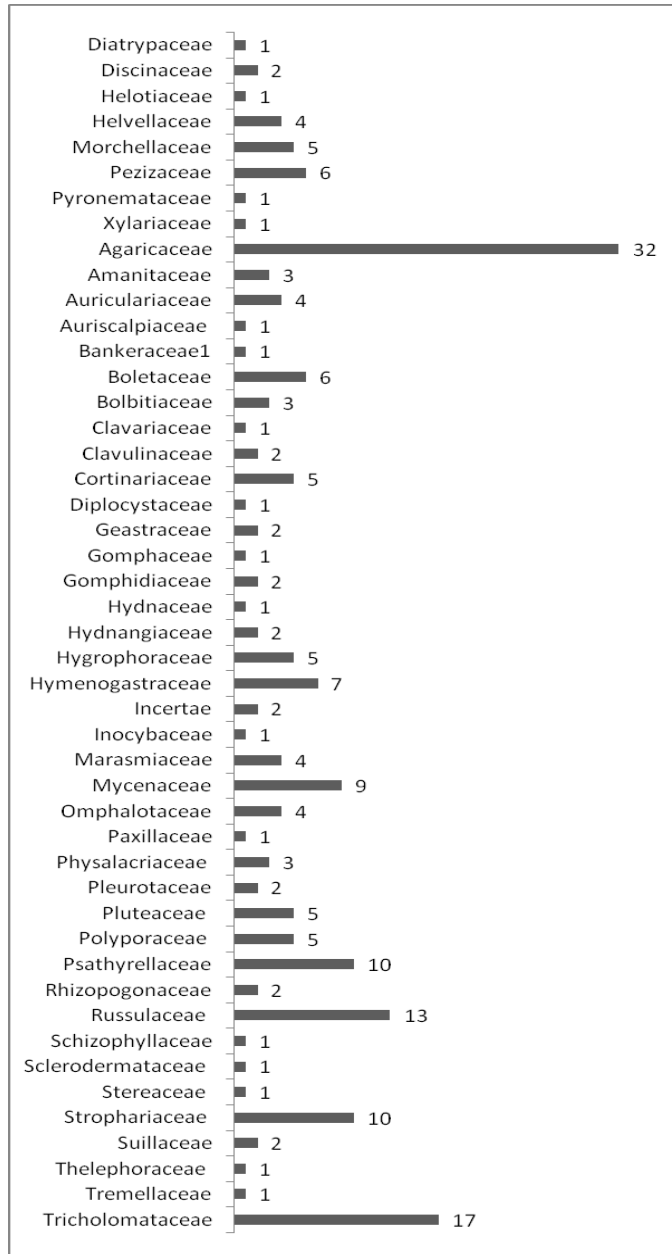


FIGURE 2. The distribution of the taxa and their families

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TABLE 1. Similarity percentages of neighboring studies with Yozgat basin

References	Number of identical taxa	Total taxa	Similarity percentage (%)
Öztürk & Kaşık 1996	10	20	50,0%
Hüseyinov et al. 2001	16	68	23,5%
Kaşık et al. 2002a	26	53	49,0%
Kaşık et al. 2002b	22	46	47,8%
Türkecul 2003a	35	59	59,3%
Kaşık et al. 2003a	20	54	37,0%
Doğan & Türkoğlu 2006c	16	36	44,4%
Türkecul et al. 2010	33	51	64,7%
Kırış et al. 2012	16	30	53,3%
Kaşık et al. 2011	19	53	35,8%
Kaya & Atila 2013	24	54	44,4%
Güler et al. 2013	20	38	52,6%

TABLE 2. Macrofungi collection localities

NO	LOCALITIES	ALTITUDES	COORDINATES
1	Akdağmadeni, Başçatak village 1	1638 m	39°33'N-35°53'E
2	Akdağmadeni, -Başçatak village 2	1780 m	39°34'N-35°48'E
3	Akdağmadeni, Bozhüyük village	1735 m	39°35'N-36°02'E
4	Akdağmadeni center area 1	1562 m	39°39'N-35°56'E
5	Akdağmadeni center area 2	1635 m	39°37'N-35°51'E
6	Akdağmadeni, Davulbaz village	1580 m	39°36'N-35°53'E
7	Akdağmadeni, Evcı village	1714 m	39°41'N-35°58'E
8	Akdağmadeni, Evcı village	1591 m	39°42'N-35°58'E
9	Akdağmadeni, Hayran village	1472 m	39°46'N-35°59'E
10	Akdağmadeni, Kadınpinarı village	1572 m	39°39'N-35°55'E
11	Akdağmadeni, Karapir village	1550 m	39°40'N-35°55'E

12	Akdağmadeni, Oluközü village	1376 m	39°40'N-35°48'E
13	Akdağmadeni, Ortaköy village	1370 m	39°40'N-35°59'E
14	Akdağmadeni, Özer village	1703 m	39°36'N-35°50'E
15	Akdağmadeni, Sağıroğlu village	994 m	39°53'N-35°53'E
16	Akdağmadeni, Tekkegüney village	1422 m	39°38'N-35°49'E
17	Akdağmadeni, Yukarıçulhalı village	1550 m	39°38'N-35°57'E
18	Aydıncık, Ağıllı village	1323 m	40°05'N-35°18'E
19	Aydıncık, Baştürk village	1300 m	40°06'N-35°20'E
20	Aydıncık center	1365 m	40°05'N-35°19'E
21	Aydıncık, Dereçiftlik village 1	1048m	40°06'N-35°13'E
22	Aydıncık, Dereçiftlik village 2	1040m	40°06'N-35°12'E
23	Aydıncık, Kıyıkışla village	1053m	40°07'N-35°19'E
24	Aydıncık, Kıyıkışla village	998m	40°07'N-35°18'E
25	Aydıncık, Kuşsaray villag	1101m	40°06'N-35°12'E
26	Aydıncık, Yaylalık villag	1498m	40°04'N-35°15'E
27	Aydıncık, Yaylalık villag	1477m	40°04'N-35°14'E
28	Çayıralan, Avşaralanı village,	1706 m	39°23'N-35°47'E
29	Çayıralan, Derekemal village	1516 m	39°23'N-35°44'E
30	Çayıralan, Güzelyayla village	1819 m	39°23'N-35°48'E
31	Çayıralan, Yukarıyahasaray village	1435 m	39°33'N-35°47'E
32	Çayıralan, Söbeçimen village	1681m	39°19'N-35°47'E
33	Çekerek, Bazlambaç village	957 m	40°08'N-35°25'E
34	Çekerek, Arpaç Village	961m	39°58'N-35°28'E
35	Çekerek, Başalan village 1	1098m	40°08'N-35°25'E
36	Çekerek, Başalan village 2	1132m	40°07'N-35°27'E
37	Çekerek, Beyyurdu Village 1	1265 m	39°58'N-35°23'E
38	Çekerek, Beyyurdu village 2	1255 m	39°57'N-35°24'E
39	Çekerek, Çayırözü village	1277m	40°06'N-35°23'E
40	Çekerek, Fakıdağı village	1352 m	40°03'N-35°38'E
41	Çekerek, İlbeyli	1338m	40°01'N-35°18'E
42	Çekerek, Kavakalanı village	1132m	39°59'N-35°26'E
43	Çekerek, Tipideresi village	1334 m	39°57'N-35°24'E
44	Kadışehir center 1	1275 m	40°01'N-35°45'E
45	Kadışehir, center 2	1342m	40°01'N-35°47'E
46	Kadışehir, Çamsaray village	1332m	40°03'N-35°47'E
47	Kadışehir, Hanözü village 1	1246 m	40°05'N-35°48'E

48	Saraykent, Kamberli village	1213 m	39°45'N-35°30'E
49	Saraykent, Sarayözü village	1230 m	39°47'N-35°32'E
50	Sorgun, Gökiniş village 1	1454 m	39°55'N-35°19'E
51	Sorgun, Gökiniş village 2	1290 m	39°54'N-35°18'E
52	Sorgun, Karalık village 1	1457 m	39°54'N-35°21'E
53	Sorgun, Karalık village 2	1383 m	39°52'N-35°24'E
54	Yozgat, Çamlık National Park	1336 m	39°48'N-34°48'E
55	Yozgat, Derbent village	1266 m	39°59'N-34°40'E
56	Yozgat, Kirazlı dam	1378 m	39°51'N-34°49'E
57	Yozgat, Kırım village	1572 m	39°51'N-34°51'E
58	Yozgat, Topaç village	1103 m	39°48'N-34°39'E

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