



## Macrofungi of Kazdağı National Park (Turkey) and its close environs

Deniz ALTUNTAŞ<sup>1</sup>, Hakan Allı<sup>1</sup>, Ilgaz AKATA <sup>\*2</sup>

<sup>1</sup> Muğla Sıtkı Koçman University, Faculty of Science, Department of Biology, Kötekli, 48000, Muğla, Turkey

<sup>2</sup> Ankara University, Faculty of Science, Department of Biology, 06100, Tandoğan, Ankara, Turkey

### Abstract

This study was based on macrofungi samples collected from Kazdağı National Park and its close environs between 2014 and 2016. As a result of field and laboratory studies, 207 species belonging to 50 families within the 2 divisions were determined. Among them, 14 species belong to *Ascomycota* and 193 to *Basidiomycota*. All determined species were given with their localities, habitats, collecting dates, fungarium numbers and they are listed in the text.

**Key words:** macrofungi, biodiversity, Kazdağı National Park, Turkey

----- \* -----

### Kazdağı Milli Parkı ve yakın çevresinin makrofungusları

### Özet

Bu çalışma, Kazdağı Milli Parkı ve yakın çevresinden 2014-2016 yılları arasında toplanan makrofungus örneklerine dayanılarak yapılmıştır. Arazi ve laboratuvar çalışmaları sonucunda, 2 bölüm içerisinde yer alan 50 familyaya ait 207 tür tespit edilmiştir. Belirlenen türlerden 14'ü *Ascomycota* ve 193'ü ise *Basidiomycota* içerisinde yer alır. Tespit edilen bütün türler, lokaliteleri, habitatları, toplanma tarihleri, fungaryum numaraları ile birlikte verilmiş ve metin içinde listelenmiştir.

**Anahtar kelimeler:** makrofunguslar, biyoçeşitlilik, Kazdağı Milli Parkı, Türkiye

### 1. Introduction

Kazdağı National Park is situated in Aegean Regions of Turkey within the Edremit district (Balıkesir). (Küçükaykay et al., 2013). The national park covers an area of 21.463 hectares and it is located in a transitional zone of Euro-Siberian and Mediterranean phytogeographical regions (Table 1). The national park is one of the rarest areas of Turkey in terms of its plant diversity that includes approximately 800 natural plant taxa, 30 of them are only indigenous to Kazdağı National Park and 78 of them are red listed (Polat and Satıl, 2012; Şat Güngör, 2011; Uysal, 2010).

The region is situated between Mediterranean and submediterranean regions and the precipitation regime has characteristics of typical Mediterranean type rainy winters. Summers are dry, warm to hot, winters are wet and cool. The annual average temperature is 14.8 °C and the annual rainfall is 655.2 mm. The rainy period is seen between November and December while dry period is June and September (Şat Güngör, 2011).

The forest vegetation of national park is dominated by Kazdağı fir (*Abies nordmanniana* ssp. *equi-trojani* (Asch. & Sint. ex Boiss.) Coode & Cullen), Turkish pine (*Pinus brutia* Ten.), black pine (*Pinus nigra* J.F. Arnold), beech (*Fagus orientalis* Lipsky), hornbeam (*Carpinus betulus* L.), oak (*Quercus infectoria* subsp. *boissieri* Olivier, *Q. ithaburensis* Decne, *Q. pubescens* Willd., *Q. petraea* (Matt.) Liebl., *Q. frainetto* Ten., *Q. coccifera* L., *Q. cerris* L.) and Juniper (*Juniperus communis* subsp. *nana* (Hook.) Syme). Some deciduous trees and maquis elements such as strawberry tree (*Arbutus unedo* L.), terebinth tree (*Pistacia terebinthus* L.), mastic tree (*P.lentiscus* L.), laurel tree (*Laurus nobilis* L.), snowbell bush (*Styrax officinalis* L.), Spanish broom (*Spartium junceum* L.), hairy thorny broom (*Calicotome villosa* (Poir.) Link), green olive tree (*Phillyrea latifolia* L.), wild asparagus (*Asparagus acutifolius* L.),

\* Corresponding author / Haberleşmeden sorumlu yazar: Tel.: +903122126720/1066; Fax.: +903122126720; E-mail: fungus@hotmail.com.tr

Norway maple (*Acer platanoides* L.), chestnut (*Castanea sativa* Mill.), common yew (*Taxus baccata* L.), silver linden (*Tilia argentea* Desf. ex DC), aspen (*Populus tremula* L.), plane (*Platanus orientalis* L.), common hazel (*Corylus avellana* L.), cornelian cherry (*Cornus mas* L.), mountain-ash (*Sorbus aucuparia* L.), wild European apple (*Malus sylvestris* (L.) Mill.), dog-rose (*Rosa canina* L.), elm (*Ulmus glabra* Huds.), service tree (*Sorbus domestica* L. and *S.torminalis* (L.) Crantz), elder (*Sambucus nigra* L.) could also be seen in the study area (Uysal, 2010).

Taxonomic studies on Turkish macrofungi is based on a history of about 100 years. Especially for the last decade, these studies number has increased and some of them are still in progress (Akata et al., 2016; Doğan and Kurt, 2016; Sesli and Topçu Sesli, 2016; Sesli and Denchev, 2008; Sesli et al., 2016; Öztürk et al., 2016). Around the study area, some studies on macrofungal diversity were carried out by Allı et al. (2016), Aşkun and Işıloğlu, (1997), Gücin and Öner (1982), Karamanoğlu and Öder (1973), Solak and Gücin (1992), Solak and Yılmaz (2002), Solak et al. (1999; 2002; 2003), Şen et al (2014), Yılmaz and Işıloğlu (2002), Yılmaz Ersel and Solak (2004), Yılmaz et al. (1997), there is not any detailed taxonomic study on macrofungi in Kazdağı National Park and its environs.

The purpose of this study is to make a contribution to the macrofungal diversity of Turkey.

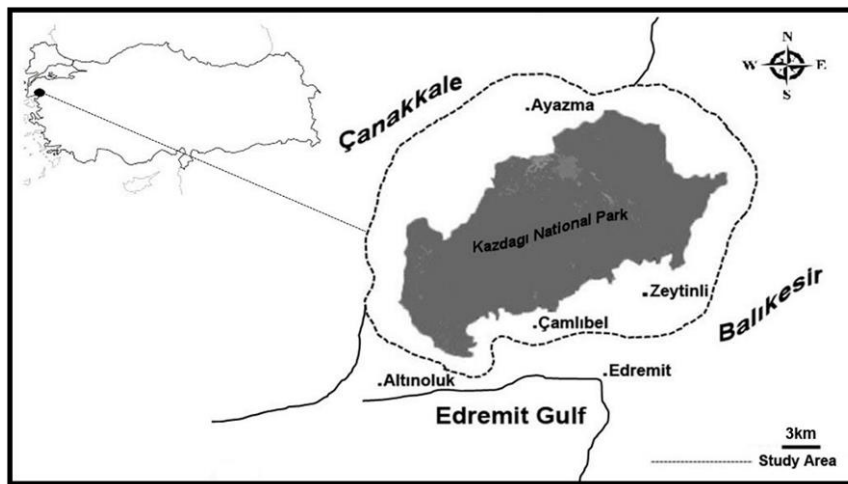


Figure 1. Map of the study area

## 2. Materials and methods

The fungal samples were collected from Kazdağı National Park and its close environs 2014 and 2016. Necessary morphological and ecological characters of samples were noted and they were photographed in their natural habitats. Macroscopic and microscopic studies and micro-chemical reactions were conducted in the laboratory. Some reagents such as distilled water, 5% KOH, H<sub>2</sub>SO<sub>4</sub>, Melzer's reagent, Cotton blue and Congo red etc. were used for microscopic investigations. Identification of the samples was performed according to Breitenbach and Kränzlin (1986–2000), Calonge (1998), Hansen and Knudsen (1992–2000), Heilmann-Clausen et al. (1998), Kränzlin (2005) and Ryvarden and Gilbertson (1993). The identified samples were deposited at the fungarium of Muğla Sıtkı Koçman University.

## 3. Results

As a result of this study, 207 species were listed. The systematics of the taxa are given in accordance with Cannon and Kirk (2007), Kirk et al. (2008), and the Index Fungorum ([www.indexfungorum.org](http://www.indexfungorum.org); accessed 15 December 2016). The species are presented in alphabetical order with locality, notes on habitat, collection date, and accession numbers (Deniz Altuntaş: DNZ).

### Fungi

#### Ascomycota

##### Caloscyphaceae

*Caloscypha fulgens* (Pers.) Boud.: Kazdağı fir observation point, under fir, 1433 m, 16.05.2015, DNZ 514.

##### Discinaceae

*Gyromitra esculenta* (Pers.) Fr.: Kazdağı fir observation point, mixed forest, 1433 m, 16.05.2015, DNZ 518.

##### Helvellaceae

*Helvella elastica* Bull.: Tozlu area, mixed forest, 1410 m, 26.10.2014, DNZ 145; Tahtacı fountain, mixed forest, 1346 m, 04.10.2015, DNZ 617.

*Helvella leucomelaena* (Pers.) Nannf.: Yalama area, mixed forest, 320 m, 28.03.2016, DNZ 919; Yayla çadırı camping area, mixed forest, 800 m, 28.03.2016, DNZ 931.

*Helvella solitaria* P. Karst.: Tahtacı fountain, mixed forest, 1346 m, 04.10.2015, DNZ 614.

**Paxina queletii** (Bres.) Stangl: Yalama area, mixed forest, 320 m, 28.03.2016, DNZ 922.

#### Lachnaceae

**Lachnum virgineum** (Batsch) P. Karst.: Yayla çadırılı camping area, on fallen pine cones, 800 m, 07.03.2015, DNZ 467.

#### Morchellaceae

**Morchella esculenta** (L.) Pers.: Ayı Deresi way, pine forest, 492 m, 28.03.2016, DNZ 924.

#### Pyronemataceae

**Otidea alutacea** (Pers.) Masee: Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 809.

**Otidea cochleata** (L.) Fuckel: Yayla çadırılı camping area, mixed forest, 800 m, 31.10.2015, DNZ 784.

#### Pezizaceae

**Sarcosphaera coronaria** (Jacq.) J. Schröt.: Yalama area, mixed forest, 320 m, 07.03.2015, DNZ 469; Ayı Deresiway, pine forest, 492 m, 28.03.2016, DNZ 926.

#### Xylariaceae

**Annulohyphoxylon multiforme** (Fr.) Y.M. Ju, J.D. Rogers & H.M. Hsieh: Mehmetalan village, on oak branch, 70 m, 15.05.2015, DNZ 510.

**Hypoxylon fragiforme** (Pers.) J. Kickx f.: Ayazma Pınarı Nature Park, on plane branch, 350 m, 04.06.2015, DNZ 556; 27.03.2016, DNZ 900.

**Hypoxylon rubiginosum** (Pers.) Fr.: Mehmetalan village, on common hazel stump, 468 m, 15.05.2015, DNZ 508.

#### Basidiomycota

#### Agaricaceae

**Agaricus arvensis** Schaeff.: Çalışır fountain, mixed forest, 1100 m, 09.11.2014, DNZ 314; Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 824.

**Agaricus impudicus** (Rea) Pilát: Çalışır fountain, pine forest, 1275 m, 09.11.2014, DNZ 301; Mehmetalan village, oak and plane mixed forest, 488 m, 15.10.2015, DNZ 636.

**Agaricus langei** (F.H. Möller) F.H. Möller: Yayla çadırılı camping area, mixed forest, 800 m, 16.11.2015, DNZ 884.

**Agaricus xanthodermus** Genev.: Yayla çadırılı camping area, mixed forest, 800 m, 14.12.2014, DNZ 414.

**Coprinus comatus** (O.F. Müll.) Pers.: Tozlu area, pine forest, 1440 m, 03.10.2015, DNZ 567.

**Cyathus olla** (Batsch) Pers.: Yayla çadırılı camping area, mixed forest, 800 m, 14.12.2014, DNZ 422.

**Cystoderma carcharias** (Pers.) Fayod: Tozlu area, pine forest, 1450 m, 26.10.2014, DNZ 109.

**Cystoderma fallax** A.H. Sm. & Singer: Sarıkız area, mixed forest, 1650 m, 08.11.2014, DNZ 163; Tozlu area, pine forest, 1406 m, 09.11.2014, DNZ 261.

**Cystodermella granulosa** (Batsch) Harmaja: Kazdağı fir observation point, fir forest, 1480 m, 16.10.2015, DNZ 668.

**Lepiota castanea** Quél.: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 384.

**Lepiota clypeolaria** (Bull.) P. Kumm.: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 378; Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 797.

**Lepiota cristata** (Bolton) P. Kumm.: Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 803.

**Lepiota wasseri** Bon: Yayla çadırılı camping area, mixed forest, 800 m, 14.12.2014, DNZ 436, 444; 16.11.2015, DNZ 891.

**Lycoperdon molle** Pers.: Kapıkule area, mixed forest, 1000 m, 25.10.2014, DNZ 017.

**Lycoperdon perlatum** Pers.: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 356, 366; Tahtacı fountain, mixed forest, 1346 m, 17.10.2015, DNZ 706.

**Lycoperdon pyriforme** Schaeff.: Kazdağı fir observation point, fir forest, 1480 m, 08.11.2014, DNZ 209.

**Lycoperdon umbrinum** Pers.: Sarıkız area, mixed forest, 1650 m, 16.10.2015, DNZ 648.

**Macrolepiota excoriata** (Schaeff.) Wasser: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 395.

**Macrolepiota fuliginosa** (Barla) Bon: Yayla çadırılı camping area, mixed forest, 800 m, 16.11.2015, DNZ 886.

**Macrolepiota mastoidea** (Fr.) Singer: Yayla çadırılı camping area, mixed forest, 817 m, 08.11.2014, DNZ 256; 04.10.2015, 625; Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 817.

**Macrolepiota procera** (Scop.) Singer: Kazdağı fir observation point, fir forest, 1480 m, 08.11.2014, DNZ 192; Yayla çadırılı camping area, mixed forest, 817 m, 08.11.2014, DNZ 245; Çalışır fountain, mixed forest, 1189 m, 16.10.2015, DNZ 681.

#### Albatrellaceae

**Scutigera pes-caprae** (Pers.) Bondartsev & Singer: Kazdağı fir observation point, fir forest, 1480 m, 25.10.2014, DNZ 085.

#### Amanitaceae

**Amanita caesarea** (Scop.) Pers.: Yalama area, mixed forest, 320 m, 16.10.2015, DNZ 683; Çalışır fountain around; mixed forest, 1117 m, 30.10.2015, DNZ 726; Yayla çadırılı camping area, mixed forest, 800 m, 31.10.2015, DNZ 783.

**Amanita citrina** Pers.: Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 809.

**Amanita eliae** Quél.: Mehmetalan village, oak and plane mixed forest, on plane branch, 488 m, 15.10.2015, DNZ 637.

**Amanita franchetii** (Boud.) Fayod: Yayla çadırılı camping area, mixed forest, 800 m, 17.10.2015, DNZ 720.

**Amanita fulva** Fr.: Yayla çadırılı camping area, mixed forest, 800 m, 31.10.2015, DNZ 789.

**Amanita gemmata** (Fr.) Bertill.: Ayazma Pınarı Nature Park, mixed forest, 350 m, 27.03.2016, DNZ 906.

**Amanita lividopallescens** (Secr. ex Boud.) Kühner & Romagn.: Tozlu area, plane and pine mixed forest, 1440 m, 17.10.2015, DNZ 692.

**Amanita muscaria** (L.) Lam.: Tozlu area, pine forest, 1470 m, 25.10.2014, DNZ 053; 26.10.2014, DNZ 140; 09.11.2014, DNZ 258; Sarıkız area, mixed forest, 1650 m, 08.11.2014, DNZ 166; Çalışır fountain, pine forest, 1275 m, 09.11.2014, DNZ 304; Kazdağı fir observation point, fir and pine mixed forest, 22 m, 26.10.2014, DNZ 116; 08.11.2014, DNZ 204; 16.11.2015, DNZ 869; Kazdağı fir observation point, pine forest, 16.10.2015, DNZ 651.

**Amanita nivalis** Grev.: Yayla çadırılı camping area, pine mixed forest, 800 m, 16.11.2015, DNZ 874.

**Amanita pantherina** (DC.) Krombh.: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 335; Yayla çadırılı camping area, mixed forest, 800 m, 17.10.2015, DNZ 715; 31.10.2015, DNZ 791.

**Amanita phalloides** (Vaill. ex Fr.) Link: Çalışır fountain, pine forest, 1275 m, 09.11.2014, DNZ 311; Ayazma Pınarı Nature Park, mixed forest, 537 m, 15.11.2015, DNZ 840.

#### Auriculariaceae

**Exidia glandulosa** (Bull.) Fr.: Mehmetalan village, pine and plane forest, on plane stump, 291 m, 26.03.2016, DNZ 897.

**Pseudohydnum gelatinosum** (Scop.) P. Karst.: Kazdağı fir observation point, fir and pine mixed forest, on pine stump, 1433 m, 03.10.2015, DNZ 581

#### Bankeraceae

**Boletopsis leucomelaena** (Pers.) Fayod: Kapıkule area, mixed forest, 1000 m, 25.10.2014, DNZ 009.

**Sarcodon imbricatus** (L.) P. Karst.: Kazdağı fir observation point, fir and pine mixed forest, , 1522 m, 26.10.2014, DNZ 121; Tahtacı fountain, mixed forest, 1328 m, 09.11.2014, DNZ 271.

**Sarcodon leucopus** (Pers.) Maas Geest. & Nannf.: Kapıkule area, mixed forest, 1000 m, 25.10.2014, DNZ 014.

#### Boletaceae

**Boletus edulis** Bull.: Sarıkız area, mixed forest, 1650 m, 08.11.2014, DNZ 164.

**Boletus erythropus** Pers.: Kazdağı fir observation point, fir forest, 1480 m, 16.10.2015, DNZ 666.

**Chalciporus piperatus** (Bull.) Bataille: Tahtacı fountain, mixed forest, 1346 m, 17.10.2015, DNZ 699.

**Xerocomellus chrysenteron** (Bull.) Šutara: Tozlu area, plane and pine mixed forest, 1440 m, 17.10.2015, DNZ 696.

#### Bondarzewiaceae

**Heterobasidion annosum** (Fr.) Bref.: Tozlu area, on pine stump, 1470 m, 25.10.2014, DNZ 022.

#### Cantharellaceae

**Cantharellus cibarius** Fr.: Kazdağı fir observation point, fir forest, 1480 m, 25.10.2014, DNZ 087; Ayazma Pınarı Nature Park, mixed forest, 537 m, 15.11.2015, DNZ 834.

**Craterellus cornucopioides** (L.) Pers.: Tozlu area, pine forest, 1450 m, 26.10.2014, DNZ 095; Ayazma Pınarı Nature Park, mixed forest, 537 m, 15.11.2015, DNZ 835.

#### Clavariadelphaceae

**Clavariadelphus truncatus** Donk: Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 815.

#### Clavulinaceae

**Clavulina cinerea** (Bull.) J. Schröt.: Tozlu area, pine forest, 1440 m, 08.11.2014, DNZ 226, 229.

**Clavulina rugosa** (Bull.) J. Schröt.: Yayla çadırı camping area, mixed forest, 800 m, 14.12.2014, DNZ 429; Kazdağı fir observation point, fir forest, 1480 m, 16.10.2015, DNZ 665.

#### Cortinariaceae

**Cortinarius claricolor** (Fr.) Fr.: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 336.

**Cortinarius croceus** (Schaeff.) Gray: Yayla çadırı camping area, mixed forest, 800 m, 14.12.2014, DNZ 453.

**Cortinarius moenne-loccozii** Bidaud: Yayla çadırı camping area, mixed forest, 800 m, 16.11.2015, DNZ 888.

**Cortinarius varicolor** (Pers.) Fr.: Sarıkız area, mixed forest, 1650 m, 08.11.2014, DNZ 174.

#### Dacrymycetaceae

**Calocera viscosa** (Pers.) Fr.: Tozlu area, pine forest, 1470 m, 25.10.2014, DNZ 045; Kazdağı fir observation point, on pine stump, 1522 m, 26.10.2014, DNZ 130.

**Dacrymyces variisporus** McNabb: Tozlu area, on pine stump, 1406 m, 09.11.2014, DNZ 269.

#### Entolomataceae

**Entoloma chalybeum** (Pers.) Noordel.: Tozlu area, pine forest, 1450 m, 25.10.2014, DNZ 067.

**Entoloma hebes** (Romagn.) Trimbach: Kazdağı fir observation point, fir and pine mixed forest, 1433 m, 16.05.2015, DNZ 519.

**Entoloma hirtipes** (Schumach.) M.M. Moser: Sarıkız area, mixed forest, 1650 m, 16.05.2015, DNZ 513.

**Entoloma incanum** (Fr.) Hesler: Ayazma Pınarı Nature Park, mixed forest, 350 m, 04.06.2015, DNZ 557.

**Entoloma vernum** S. Lundell: Yayla çadırı camping area, mixed forest, 800 m, 14.12.2014, DNZ 424.

#### Fomitopsidaceae

**Antrodia serialis** (Fr.) Donk: Kazdağı fir observation point, fir and pine mixed forest, on pine stump, 1433 m, 03.10.2015, DNZ 585.

**Fomitopsis pinicola** (Sw.) P. Karst. : Kazdağı fir observation point, on fir stump, 1433 m, 16.05.2015, DNZ 520; Kazdağı fir observation point, on fir stump, 1433 m, 16.05.2015, DNZ 521; 03.06.2015, DNZ 535; 03.10.2015, DNZ 595.

**Ischnoderma benzoinum** (Wahlenb.) P. Karst. Yayla çadırı camping area, on pine trunk, 800 m, 17.10.2015, DNZ 716.

**Phaeolus schweinitzii** (Fr.) Pat.: Kapıkule area, on dead pine, 1277 m, 24.04.2015, DNZ 474; Ayazma Pınarı Nature Park, mixed forest, around dead pine, 350 m, 25.04.2015, DNZ 505; 04.06.2015, DNZ 549.

**Postia fragilis** (Fr.) Jülich: Tozlu area, on pine stump, 1470 m, 25.10.2014, DNZ 020.

**Postia undosa** (Peck) Jülich: Yayla çadırı camping area, on pine stump, 800 m, 14.12.2014, DNZ 431.

#### Ganodermataceae

**Ganoderma lucidum** (Curtis) P. Karst.: Mehmetalan village, oak and plane mixed forest, on plane stump, 468 m, 15.05.2015, DNZ 506.

#### Geastraceae

**Geastrum fimbriatum** Fr.: Kazdağı fir observation point, fir and pine mixed forest, 1522 m, 26.10.2014, DNZ 132.

**Geastrum saccatum** Fr.: Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 800.

#### Gomphaceae

**Ramaria botrytis** (Pers.) Ricken: Kazdağı fir observation point, fir and pine mixed forest, 1522 m, 26.10.2014, DNZ 128.

**Ramaria fennica** (P. Karst.) Ricken: Kazdağı fir observation point, fir forest, 1480 m, 08.11.2014, DNZ 183.

**Ramaria flava** (Schaeff.) Qué.: Tozlu area, pine forest, 1470 m, 25.10.2014, DNZ 036; Kazdağı fir observation point, fir forest, 1480 m, 08.11.2014, DNZ 213; Tahtacı fountain, mixed forest, 1328 m, 09.11.2014, DNZ 289; Çalışır fountain, pine forest, 1283 m, 09.11.2014, DNZ 292, 293.

**Ramaria flavescens** (Schaeff.) R.H. Petersen: Tozlu area, pine forest, 1470 m, 25.10.2014, DNZ 061.

- Ramaria obtusissima** (Peck) Corner: Kazdağı fir observation point, fir forest, 1480 m, 25.10.2014, DNZ 080; Yayla çadırırlı camping area, mixed forest, 924 m, 09.11.2014, DNZ 320.
- Gomphidiaceae**
- Chroogomphus rutilus** (Schaeff.) O.K. Mill.: Tozlu area, pine forest, 1470 m, 25.10.2014, DNZ 027; Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 347.
- Hydnaceae**
- Hydnum repandum** L.: Tahtacı fountain, mixed forest, 1328 m, 09.11.2014, DNZ 281.
- Hydnum rufescens** Pers.: Kazdağı fir observation point, fir forest, 1480 m, 25.10.2014, DNZ 086.
- Hydnangiaceae**
- Laccaria laccata** (Scop.) Cooke: Yayla çadırırlı camping area, mixed forest, 800 m, 14.12.2014, DNZ 407.
- Laccaria proxima** (Boud.) Pat.: Sarıkız area, mixed forest, 1650 m, 08.11.2014, DNZ 167.
- Hygrophoraceae**
- Hygrocybe acutoconica** (Clem.) Singer: Tozlu area, pine forest, 1450 m, 26.10.2014, DNZ 094; Tozlu area, plane and pine mixed forest, 17.10.2015, DNZ 686.
- Hygrocybe conica** (Schaeff.) P. Kumm.: Tahtacı fountain, mixed forest, 1328 m, 09.11.2014, DNZ 274; Yayla çadırırlı camping area, mixed forest, 800 m, 16.11.2015, DNZ 876.
- Hygrophorus agathosmus** (Fr.) Fr.: Yayla çadırırlı camping area, mixed forest, 800 m, 14.12.2014, DNZ 457.
- Hygrophorus chrysodon** (Batsch) Fr.: Yayla çadırırlı camping area, mixed forest, 800 m, 14.12.2014, DNZ 406.
- Hygrophoropsidaceae**
- Hygrophoropsis aurantiaca** (Wulfen) Maire: Kapıkule area, mixed forest, 1000 m, 25.10.2014, DNZ 016; Tozlu area, pine forest, 1406 m, 09.11.2014, DNZ 255.
- Hymenochaetaceae**
- Hymenochaete rubiginosa** (Dicks.) Lév.: Ayazma Pınarı Nature Park, mixed forest, 350 m, 27.03.2016, DNZ 911.
- Porodaedalea pini** (Brot.) Murrill: Yayla çadırırlı camping area; on pine stump, 800 m, 07.03.2015, DNZ 466; Kapıkule area, on pine stump, 1277 m, 24.04.2015, DNZ 475; Ayazma Pınarı Nature Park, mixed forest, on pine stump, 350 m, 04.06.2015, DNZ 550.
- Pseudoionotus dryadeus** (Pers.) T. Wagner & M. Fisch.: Kapıkule area, on oak stump, 925 m, 26.10.2016, DNZ 148.
- Hymenogastraceae**
- Galerina badipes** (Pers.) Kühner: Yalama area, mixed forest, on needle litter, 330 m, 14.12.2014, DNZ 358; Yayla çadırırlı camping area, mixed forest, on pine branch, 800 m, 14.12.2014, DNZ 408.
- Galerina marginata** (Batsch) Kühner: Sarıkız area, on juniper branch, 1650 m, 08.11.2014, DNZ 170.
- Galerina stylifera** (G.F. Atk.) A.H. Sm. & Singer: Yayla çadırırlı camping area, mixed forest, on fallen pine cones, 800 m, 14.12.2014, DNZ 458.
- Gymnopilus junonius** (Fr.) P.D. Orton: Sarıkız area, on pine stump, 1650 m, 08.11.2014, DNZ 176.
- Hebeloma crustuliniforme** (Bull.) Qué.: Tozlu area, pine forest, 1450 m, 26.10.2014, DNZ 113; 08.11.2014, DNZ 235.
- Hebeloma hiemale** Bres.: Tozlu area, plane and pine mixed forest, 1440 m, 17.10.2015, DNZ 689.
- Hebeloma mesophaeum** (Pers.) Qué.: Sarıkız area, mixed forest, 1650 m, 16.10.2015, DNZ 650.
- Hebeloma sinapizans** (Paulet) Gillet: Tozlu area, pine forest, 1440 m, 30.10.2015, DNZ 764.
- Incertae sedis.**
- Panaeolus semiovatus** (Sowerby) S. Lundell & Nannf.: Kazdağı fir observation point, fir and pine mixed forest, on dung, 1522 m, 26.10.2014, DNZ 134.
- Trichaptum abietinum** (Dicks.) Ryvarden: Kazdağı fir observation point, on fir stump, 1480 m, 08.11.2014, DNZ 190; 03.06.2015, DNZ 527.
- Inocybaceae**
- Crepidotus calolepis** (Fr.) P. Karst.: Mehmetalan village, oak and plane mixed forest, on plane branch, 488 m, 15.10.2015, DNZ 630.
- Crepidotus luteolus** Sacc.: Yayla çadırırlı camping area, mixed forest, on plane branch, 800 m, 14.12.2014, DNZ 432.
- Inocybe adaequata** (Britzelm.) Sacc.: Tozlu area, pine forest, 1450 m, 26.10.2014, DNZ 092.
- Inocybe auricoma** (Batsch) Sacc.: Çalışır fountain, pine forest, 1283 m, 09.11.2014, DNZ 297.
- Inocybe geophylla** (Bull.) P. Kumm.: Yayla çadırırlı camping area, mixed forest, 817 m, 09.11.2014, DNZ 333; Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 383; Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 812.
- Inocybe muricellata** Bres.: Çalışır fountain, pine forest, 1275 m, 09.11.2014, DNZ 307; Yayla çadırırlı camping area, mixed forest, 817 m, 09.11.2014, DNZ 328.
- Inocybe phaeodisca** Kühner: Tozlu area, pine forest, 1406 m, 09.11.2014, DNZ 253.
- Inocybe phaeoleuca** Kühner: Yayla çadırırlı camping area, mixed forest, 800 m, 28.03.2016, DNZ 932.
- Inocybe sindonia** (Fr.) P. Karst.: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 340.
- Inocybe splendens** R. Heim: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 379; Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 819.
- Inocybe whitei** (Berk. & Broome) Sacc.: Tozlu area, pine forest, 1406 m, 09.11.2014, DNZ 265; Yayla çadırırlı camping area, mixed forest, 800 m, 14.12.2014, DNZ 405.
- Phaeomarasmium erinaceus** (Fr.) Scherff. ex Romagn.: Kapıkule area, on oak branch, 925 m, 26.10.2016, DNZ 150.
- Lyophyllaceae**
- Tephrocybe confusa** (P.D. Orton) P.D. Orton: Tozlu area, pine forest, 1406 m, 09.11.2014, DNZ 251.
- Marasmiaceae**
- Baeospora myosura** (Fr.) Singer: Kapıkule area, on fallen pine cones, 925 m, 26.10.2016, DNZ 151.
- Marasmius oreades** (Bolton) Fr.: Mehmetalan village, on plane branch, 488 m, 15.10.2015, DNZ 642.
- Mycenaceae**

- Mycena crocata** (Schrad.) P. Kumm.: Yayla çadırılı camping area, on oak branch, 924 m, 09.11.2014, DNZ 319; 14.12.2014, DNZ 411,412.
- Mycena epipterygia** (Scop.) Gray: Yayla çadırılı camping area, mixed forest, 800 m, 14.12.2014, DNZ 410.
- Mycena pura** (Pers.) P. Kumm.: Yayla çadırılı camping area, mixed forest, 800 m, 14.12.2014, DNZ 428.
- Mycena renati** Quél.: Mehmetalan village, on plane branch, 488 m, 15.10.2015, DNZ 638.
- Mycena sanguinolenta** (Alb. & Schwein.) P. Kumm.: Sarıkız area, mixed forest, 1650 m, 08.11.2014, DNZ 156.
- Mycena seynii** Quél.: Yalama area, on fallen pine cones, 330 m, 14.12.2014, DNZ 354.
- Mycena silvae-nigrae** Maas Geest. & Schwöbel: Tozlu area, on pine stump, 1470 m, 25.10.2014, DNZ 056.
- Omphalotaceae**
- Gymnopus androsaceus** (L.) Della Maggiora & Trassinelli: Tozlu area, pine forest, on needle litter, 1470 m, 25.10.2014, DNZ 040.
- Gymnopus brassicolens** (Romagn.) Antonín & Noordel.: Yayla çadırılı camping area, on oak stump, 800 m, 14.12.2014, DNZ 451.
- Gymnopus dryophilus** (Bull.) Murrill: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 351.
- Omphalotus olearius** (DC.) Singer: Kapikule area, on oak stump, 925 m, 26.10.2016, DNZ 149; Ayı Deresiway, on oak stump, 620 m, 17.10.2015, DNZ 684.
- Omphalotus olivascens** H.E. Bigelow, O.K. Mill. & Thiers: Yalama area, on oak stump, 330 m, 14.12.2014, DNZ 337.
- Paxillaceae**
- Paxillus involutus** (Batsch) Fr.: Tahtacı fountain, mixed forest, 1346 m, 04.10.2015, DNZ 622.
- Paxillus ionipus** Quél.: Mehmetalan village, on pine stump, 92 m, 26.03.2016, DNZ 899.
- Physalacriaceae**
- Armillaria mellea** (Vahl) P. Kumm.: Ayazma Pınarı Nature Park, on oak stump, 537 m, 15.11.2015, DNZ 853.
- Oudemansiella melanotricha** (Dörfelt) M.M. Moser: Kazdağı fir observation point, fir forest, 1480 m, 08.11.2014, DNZ 200.
- Strobilurus tenacellus** (Pers.) Singer: Yayla çadırılı camping area, on fallen pine cones, 800 m, 07.03.2015, DNZ 461.
- Pluteaceae**
- Pluteus pouzarianus** Singer: Kazdağı fir observation point, on fir stump, 1433 m, 03.10.2015, DNZ 593.
- Polyporaceae**
- Dichomitus squalens** (P. Karst.) D.A. Reid: Yayla çadırılı camping area, on pine branch, 800 m, 14.12.2014, DNZ 417.
- Fomes fomentarius** (L.) Fr.: Daridere area, on oak stump, 665 m, 24.04.2015, DNZ 487.
- Trametes hirsuta** (Wulfen) Lloyd: Mehmetalan village, on plane stump, 468 m, 15.05.2015, DNZ 507.
- Trametes versicolor** (L.) Lloyd: Zeytinli village, on plane stump, 115 m, 03.06.2015, DNZ 545.
- Psathyrellaceae**
- Coprinellus domesticus** (Bolton) Vilgalys, Hopple & Jacq. Johnson: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 364.
- Coprinellus micaceus** (Bull.) Vilgalys, Hopple & Jacq. Johnson: Kazdağı fir observation point, fir forest, 1480 m, 03.06.2015, DNZ 528.
- Coprinopsis lagopus** (Fr.) Redhead, Vilgalys & Moncalvo: Tozlu area pine forest, on dung, 1450 m, 25.10.2014, DNZ 64; 03.10.2015, DNZ 568.
- Lacrymaria lacrymabunda** (Bull.) Pat.: Mehmetalan village, oak and plane mixed forest, 488 m, 15.10.2015, DNZ 629.
- Psathyrella candolleana** (Fr.) Maire: Zeytinli village, mixed forest, 115 m, 03.06.2015, DNZ 543.
- Rhizopogonaceae**
- Rhizopogon luteolus** Fr.: Yayla çadırılı camping area, mixed forest, under pine, 817 m, 09.11.2014, DNZ 326.
- Russulaceae**
- Lactarius chrysorrheus** Fr.: Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 826.
- Lactarius decipiens** Quél.: Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 831.
- Lactarius deliciosus** (L.) Gray: Kazdağı fir observation point, fir forest, 1480 m, 08.11.2014, DNZ 203; Tahtacı fountain, mixed forest, 1328 m, 09.11.2014, DNZ 270.
- Lactarius quieticolor** Romagn.: Yalama area, mixed forest, 320 m, 28.03.2016, DNZ 917.
- Lactarius quietus** (Fr.) Fr.: Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 811.
- Lactarius rufus** (Scop.) Fr.: Kazdağı fir observation point, fir forest, 1480 m, 16.10.2015, DNZ 675.
- Lactarius sanguifluus** (Paulet) Fr.: Yayla çadırılı camping area, mixed forest, 800 m, 31.10.2015, DNZ 777; 16.11.2015, DNZ 883; Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 805.
- Lactarius semisanguifluus** R. Heim & Leclair: Tahtacı fountain, mixed forest, 1346 m, 17.10.2015, DNZ 705.
- Lactarius vellereus** (Fr.) Fr.: Kazdağı fir observation point, fir and pine mixed forest, 1480 m, 30.10.2015, DNZ 759; Ayazma Pınarı Nature Park, mixed forest, 537 m, 15.11.2015, DNZ 832.
- Russula atrorubens** Quél.: Kazdağı fir observation point, fir forest, on fallen fir stump, 1480 m, 16.11.2015, DNZ 865.
- Russula chloroides** (Krombh.) Bres.: Yayla çadırılı camping area, mixed forest, 800 m, 31.10.2015, DNZ 771.
- Russula delicata** Fr.: Kapikule area, mixed forest, 1000 m, 25.10.2014, DNZ 006; Tozlu area, pine forest, 1440 m, 08.11.2014, DNZ 239.
- Russula romellii** Maire: Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 807.
- Russula sanguinaria** (Schumach.) Rauschert: Tozlu area, pine forest, 1440 m, 30.10.2015, DNZ 728.
- Russula silvestris** (Singer) Reumaux: Kazdağı fir observation point, fir forest, 1480 m, 16.10.2015, DNZ 660.
- Russula torulosa** Bres.: Kazdağı fir observation point, fir and pine mixed forest, 1440 m, 16.10.2015, DNZ 653.
- Russula xerampelina** (Schaeff.) Fr.: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 345.
- Sclerodermataceae**
- Scleroderma bovista** Fr.: Çalısır fountain, pine forest, 1283 m, 09.11.2014, DNZ 296.
- Sparassidaceae**
- Sparassis crispa** (Wulfen) Fr.: Çalısır fountain, on pine stump, 1275 m, 09.11.2014, DNZ 306; Yayla çadırılı camping area, on pine stump, 800 m, 14.12.2014, DNZ 435.
- Strophariaceae**

- Hypholoma fasciculare** (Huds.) P. Kumm.: Mehmetalan village, on oak stump, 291 m, 26.03.2016, DNZ 896.
- Leratiomyces squamosus** (Pers.) Bridge & Spooner: Yayla çadırılı camping area, mixed forest, 924 m, 09.11.2014, DNZ 318.
- Pholiota aurivella** (Batsch) P. Kumm.: Kazdağı fir observation point, on fallen fir stump, 1480 m, 16.11.2015, DNZ 860.
- Pholiota limonella** (Peck) Sacc.: Kazdağı fir observation point, on fallen fir stump, 1480 m, 30.10.2015, DNZ 741.
- Stropharia aeruginosa** (Curtis) Quél.: Ayazma Pınarı Nature Park, mixed forest, 853 m, 15.11.2015, DNZ 830.
- Stropharia caerulea** Kreise: Yayla çadırılı camping area, mixed forest, 800 m, 14.12.2014, DNZ 443.
- Suillaceae**
- Suillus bellinii** (Inzenga) Kuntze: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 342.
- Suillus bovinus** (L.) Roussel: Tozlu area, plane and pine mixed forest, 1410 m, 26.10.2014, DNZ 139; Mehmetalan village, oak and plane mixed forest, 488 m, 15.10.2015, DNZ 632.
- Suillus collinitus** (Fr.) Kuntze: Kazdağı fir observation point, fir forest, 1480 m, 16.10.2015, DNZ 667; Yalama area, mixed forest, 320 m, 30.10.2015, DNZ 769; 28.03.2016, DNZ 916.
- Suillus granulatus** (L.) Roussel: Mehmetalan village, oak and plane mixed forest, 488 m, 15.10.2015, DNZ 633.
- Suillus luteus** (L.) Roussel: Tozlu area, pine forest, 1440 m, 08.11.2014, DNZ 232; Kazdağı fir observation point, fir forest, 1480 m, 16.10.2015, DNZ 680.
- Suillus variegatus** (Sw.) Richon & Roze: Kazdağı fir observation point, fir and pine mixed forest, 1480 m, 30.10.2015, DNZ 737.
- Tricholomataceae**
- Clitocybe costata** Kühner & Romagn.: Tozlu area, pine forest, 1450 m, 25.10.2014, DNZ 077; Yayla çadırılı camping area, mixed forest, 800 m, 14.12.2014, DNZ 437.
- Clitocybe gibba** (Pers.) P. Kumm.: Çalışır fountain, pine forest, 1283 m, 09.11.2014, DNZ 298; Kazdağı fir observation point, fir forest, 1480 m, 16.10.2015, DNZ 675.
- Clitocybe metachroa** (Fr.) P. Kumm.: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 388.
- Clitocybe odora** (Bull.) P. Kumm.: Tozlu area, pine forest, 1470 m, 25.10.2014, DNZ 037; Kazdağı fir observation point, fir and pine mixed forest, 1522 m, 26.10.2014, DNZ 120; 03.10.2015, DNZ 580; Yayla çadırılı camping area, mixed forest, 800 m, 31.10.2015, DNZ 774.
- Clitocybe phyllophila** (Pers.) P. Kumm.: Tozlu area, pine forest, 1470 m, 25.10.2014, DNZ 059.
- Infundibulicybe geotropa** (Bull.) Harmaja: Yayla çadırılı camping area, mixed forest, 800 m, 16.11.2015, DNZ 883.
- Lepista glaucocana** (Bres.) Singer: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 398.
- Lepista nuda** (Bull.) Cooke: Çalışır fountain, pine forest, 1275 m, 09.11.2014, DNZ 302; Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 382.
- Melanoleuca graminicola** (Velen.) Kühner & Maire: Yayla çadırılı camping area, mixed forest, 800 m, 14.12.2014, DNZ 456.
- Melanoleuca malaleuca** (Pers.) Murrill: Kazdağı fir observation point, fir forest, 1480 m, 25.10.2014, DNZ 083; Tozlu area, pine forest, 1406 m, 09.11.2014, DNZ 262; Yayla çadırılı camping area, mixed forest, 800 m, 14.12.2014, DNZ 446.
- Paralepista flaccida** (Sowerby) Vizzini: Yayla çadırılı camping area, mixed forest, 800 m, 14.12.2014, DNZ 425.
- Pseudoclitocybe cyathiformis** (Bull.) Singer: Yalama area, mixed forest, 330 m, 14.12.2014, DNZ 376, 380.
- Resupinatus applicatus** (Batsch) Gray: Kazdağı fir observation point, fir and pine mixed forest, on pine stump, 1522 m, 26.10.2014, DNZ 131.
- Tricholoma albobrunneum** (Pers.) P. Kumm.: Tozlu area, pine forest, 1440 m, 08.11.2014, DNZ 233; Yayla çadırılı camping area, mixed forest, 800 m, 16.11.2015, DNZ 871.
- Tricholoma equestre** (L.) P. Kumm.: Tozlu area, pine forest, 1470 m, 25.10.2014, DNZ 039.
- Tricholoma focale** (Fr.) Ricken: Tahtacı fountain, mixed forest, 1328 m, 09.11.2014, DNZ 283; Yayla çadırılı camping area, mixed forest, 800 m, 16.11.2015, DNZ 889.
- Tricholoma pardinum** (Pers.) Quél.: Kazdağı fir observation point, fir and pine mixed forest, 1480 m, 30.10.2015, DNZ 761.
- Tricholoma pessundatum** (Fr.) Quél.: Yayla çadırılı camping area, mixed forest, 800 m, 31.10.2015, DNZ 775.
- Tricholoma portentosum** (Fr.) Quél.: Kazdağı fir observation point, fir and pine mixed forest, 1522 m, 26.10.2014, DNZ 122; Ayazma Pınarı Nature Park, mixed forest, 537 m, 15.11.2015, DNZ 854.
- Tricholoma saponaceum** (Fr.) P. Kumm.: Kazdağı fir observation point, fir forest, 1480 m, 25.10.2014, DNZ 079.
- Tricholoma scalpturatum** (Fr.) Quél.: Tozlu area, pine forest, 1450 m, 26.10.2014, DNZ 098; Yayla çadırılı camping area, mixed forest, 800 m, 16.11.2015, DNZ 879.
- Tricholoma terreum** (Schaeff.) P. Kumm.: Kazdağı fir observation point, fir and pine mixed forest, 1522 m, 26.10.2014, DNZ 133.
- Tricholomopsis rutilans** (Schaeff.) Singer: Çalışır fountain, on pine stump, 1275 m, 09.11.2014, DNZ 299; Tozlu area, on pine stump, 1440 m, 30.10.2015, DNZ 768.
- Tubariaceae**
- Tubaria conspersa** (Pers.) Fayod: Kazdağı fir observation point, fir forest, 1480 m, 16.10.2015, DNZ 657.

#### 4. Conclusions and discussion

In the present study, 207 species within 98 genus and 50 families were determined. Among them 14 species belongs to *Ascomycota* and 193 to *Basidiomycota*. The distribution of the species in their families are as follows; *Tricholomataceae* 23, *Agaricaceae* 21, *Russulaceae* 17, *Inocybaceae* 12, *Amanitaceae* 11, *Hymenogastraceae* 8, *Mycenaceae* 7, *Fomitopsidaceae*, *Strophariaceae* and *Suillaceae* 6, *Entolomataceae*, *Gomphaceae*, *Psathyrellaceae* and *Omphalotaceae* 5, *Cortinariaceae*, *Boletaceae*, *Helvellaceae*, *Hygrophoraceae* and *Polyporaceae* 4, *Bankeraceae*, *Hymenochaetaceae*, *Physalacriaceae*, *Xylariaceae* 3, *Auriculariaceae*, *Cantharellaceae*, *Clavulinaceae*, *Dacrymycetaceae*, *Hydnangiaceae*, *Geastraceae*, *Marasmiaceae*, *Paxillaceae* and *Pyronemataceae* 2, *Bondarzewiaceae*, *Caloscyphaceae*, *Clavariadelphaceae*, *Discinaceae*, *Ganodermataceae*, *Gomphidiaceae*, *Hydnaceae*,

Hygrophoropsidaceae, Lyophyllaceae, Pluteaceae, Rhizopogonaceae, Sclerodermataceae, Sparassidaceae and Tubariaceae 1. Two species (*Panaeolus semiovatus* and *Trichaptum abietinum*) are also categorized as incertae sedis.

Fifty-seven species are suitable for human consumption (*Agaricus arvensis*, *A. impudicus*, *A. langei*, *Amanita caesarea*, *Armillaria mellea*, *Boletopsis leucomelaena*, *Boletus edulis*, *Chalciporus piperatus*, *Cantharellus cibarius*, *Chroogomphus rutilus*, *Clavariadelphus truncatus*, *Clitocybe gibba*, *Clavulina cinerea*, *C. rugosa*, *Craterellus cornucopioides*, *Coprinus comatus*, *Gymnopus dryophilus*, *Helvella elastica*, *H. leucomelaena*, *Hydnum repandum*, *Hygrophorus chrysodon*, *Infundibulicybe geotropa*, *Laccaria laccata*, *L. proxima*, *Lactarius deliciosus*, *L. sanguifluus*, *L. semisanguifluus*, *Lepista nuda*, *Lycoperdon molle*, *L. perlatum*, *L. pyriforme*, *L. umbrinum*, *Macrolepiota mastoidea*, *M. procera*, *Marasmius oreades*, *Melanoleuca melaleuca*, *Morchella esculenta*, *Pluteus pouzarianus*, *Ramaria botrytis*, *R. flava*, *R. flavescens*, *Rhizopogon luteolus*, *Russula chloroides*, *R. delica*, *R. xerampelina*, *Sparassis crispa*, *Sarcodon imbricatus*, *Suillus bellinii*, *S. bovinus*, *S. collinitus*, *S. granulatus*, *S. luteus*, *S. variegatus*, *Tricholoma portentosum*, *T. terreum*, *Tricholomopsis rutilans* and *Xerocomellus chrysenteron*) but only five species (*Morchella esculenta*, *Lactarius deliciosus*, *Russula delica*, *Sparassis crispa* and *Tricholoma terreum*) are commonly eaten by local people.

Twenty-eight species (*Agaricus xanthodermus*, *Amanita eliae*, *A. franchetii*, *A. gemmata*, *A. muscaria*, *A. pantherina*, *A. phalloides*, *Boletus erythropus*, *Clitocybe phyllophila*, *Entoloma incanum*, *Galerina marginata*, *Gymnopilus junonius*, *Gyromitra esculenta*, *Hebeloma crustuliniforme*, *H. mesophaeum*, *H. sinapizans*, *Hypholoma fasciculare*, *Inocybe geophylla*, *Lactarius chrysorrheus*, *Leratiomyces squamosus*, *Lepiota clypeolaria*, *L. cristata*, *Omphalotus olearius*, *O. olivascens*, *Paxillus involutus*, *Sarcosphaera coronaria*, *Tricholoma focale* and *T. pessundatum*) are poisonous. Due to collecting only well known edible mushrooms by the native people, there isn't any poisoning case in the study area.

The results of this study were compared with the data of the other studies on macrofungal taxonomy carried out in its close environs (Table 1). Number of the determined species and similarity percentages are presented in Table 1. These similarities may be due to similarities in climate, vegetation and flora.

Table 1. Similarity percentages of neighboring studies with study area

Investigations	Number of species	Identical species	Similarity (%)
Karamanoğlu and Öder (1973)	13	8	61.5
Gücin and Öner (1982)	70	23	32.35
Solak and Gücin (1992)	80	35	43.75
Aşkun and Işıloğlu (1997)	56	34	60.71
Yılmaz et al. (1997)	52	18	34.62
Solak et al. (1999)	104	41	39.42
Yılmaz and Işıloğlu (2002)	54	21	38.89
Solak and Yılmaz (2002)	36	9	25
Solak et al. (2002)	200	61	30.5
Solak et al. (2003)	70	28	40
Yılmaz Ersel and Solak (2004)	55	11	20
Şen et al. (2014)	48	17	35.42
Allı et al. (2016)	78	34	43.59

## Acknowledgements

Muğla Sıtkı Koçman University Research Fund (project no:15/038) is thanked for supporting the research. Authors would also like to thank İsmail Şen and Mustafa Sevindik for their valuable contributions to this study.

## References

- Akata, I., Kaya, A., Uzun, Y. (2016). Macrofungal diversity of Zigana Mountain (Gümüşhane/Turkey). *Biological Diversity and Conservation*, 9(2), 57-69.
- Allı H., Şen İ., Altuntaş D. (2016). Macrofungi of İznik Province. *Commun. Fac. Sci. Univ. Ank. Series C*, 25(1-2), 7-24.
- Aşkun, T., Işıloğlu, M. (1997). Macrofungi of Balya (Balıkesir) Country. *Turkish Journal of Botany*, 21, 279-284.



- Breitenbach, J., Kränzlin, F. (1986). Fungi of Switzerland. Vol: 2, Nongilled Fungi. Switzerland: Verlag Mykologia.
- Breitenbach, J., Kränzlin, F. (1991). Fungi of Switzerland. Vol: 3, Boletes and Agarics 1. Part. Switzerland: Verlag Mykologia.
- Breitenbach, J., Kränzlin, F. (1995). Fungi of Switzerland. Vol: 4, Agarics 2. Part. Switzerland: Verlag Mykologia.
- Breitenbach, J., Kränzlin, F. (2000). Fungi of Switzerland. Vol: 5, Agarics 3. Part. Switzerland: Verlag Mykologia.
- Calonge, F.D. (1998). *Gasteromycetes, I. Lycoperdales, Nidulariales, Phallales, Sclerodermatales, Tulostomatales*. Volume 3. Stuttgart: Real Jardin Botanico.
- Cannon, P.F., Kirk, P.M. (2007). Fungal families of the world. Wallingford: CAB International.
- Doğan, H.H, Kurt, F. (2016). New macrofungi records from Turkey and macrofungal diversity of Pozantı-Adana. Turkish Journal of Botany, 40, 209-217..
- Gücin F., Öner M. (1982). Manisa ili dahilinde yetişen makrofunguslar. Doğa, 6(3), 91-96.
- Hansen, L., Knudsen, H. (1992). Nordic Macromycetes. Volume 2. *Polyporales, Boletales, Agaricales, Russulales*. Copenhagen: Nordsvamp.
- Hansen, L., Knudsen, H. (1997). Nordic Macromycetes. Volume 3. Heterobasidoid, Aphylloporoid, and Gastromycetoid Basidiomycetes. Copenhagen: Nordsvamp.
- Hansen, L., Knudsen, H. (2000). Nordic Macromycetes. Volume 1. Ascomycetes. Copenhagen: Nordsvamp.
- Heilmann-Clausen, J., Verbeke, A., Vesterholt, J. (1998). The Genus *Lactarius* (Fungi of Northern Europe, Vol. 2). Copenhagen: Danish Mycological Society.
- Karamanoğlu, K., Öder, N. (1973). Bursa ili ve çevresinde yetişen bazı şapkalı mantarlar. Ankara Üniversitesi Eczacılık Fakültesi Mecmuası, 3(13), 13-33.
- Kränzlin, F. (2005). Fungi of Switzerland. Volume 6. Russulaceae. Switzerland: Verlag Mykologia
- Kirk, P.M., Cannon, P.F., Minter, D.W., Stalpers, J.A. (2008). Dictionary of the fungi, 10th ed. Wallingford: CAB International.
- Küçükaykay, E.C., Şirin, Ü., Çalışkan H., Şenyüz, Y. (2013). Ground beetle (Carabidae: Coleoptera) records from Kazdağları (İda mountain). Biological Diversity and Conservation, 6(2), 142-149.
- Öztürk, Ö., Doğan, H.H., Şanda, M. (2016). Some new additions to Turkish mycobiota from Sakarya region. Biological Diversity and Conservation, 9(1), 97-100.
- Polat, R., Satıl F. (2012). An ethnobotanical survey of medicinal plants in Edremit Gulf (Balıkesir – Turkey). Journal of Ethnopharmacology, 139, 626– 641.
- Ryvarden, L., Gilbertson, R.L. (1993). *European Polypores* Vol: 1-2, Synopsis Fungorum 6. Oslo: Norway.
- Sesli, E., Denchev, C.M. (2008). Checklists of the myxomycetes, larger ascomycetes, and larger basidiomycetes in Turkey. Mycotaxon, 106, 65–67. + [complete version, 1–145, new version uploaded in January 2013].
- Sesli, E., Topçu Sesli, A. (2016). A new genus record (*Tephroderma*) for the Turkish mycota. Biological Diversity and Conservation, 9(2), 202-206.
- Sesli, E., Türkekul, İ., Akata, I., Niskanen, T. (2016). New records of Basidiomycota from Trabzon, Tokat, and İstanbul provinces in Turkey. Turkish Journal of Botany, 40, 531-545.
- Solak, M.H., Gücin, F. (1992). Bursa Yöresinden Türkiye için Yeni Makrofungus Türleri ve Yörede Belirlenen Diğer Makrofunguslar. Turkish Journal of Botany, 16, 335-346.
- Solak, M.H., Işıloğlu, M., Gücin, F., Gökler, I. (1999). Macrofungi of İzmir Province. Turkish Journal of Botany, 23, 383–390.
- Solak, M.H., Yılmaz, F. (2002). Manisa Yöresi Makrofungus Florasına Katkıları. Ekoloji Çevre Dergisi, 10(43), 30-32.
- Solak, M.H., Yılmaz Ersel, F., Gücin, F., Işıloğlu, M. (2002). Macrofungi of Balıkesir Province from Turkey. Bio-Science Research Bulletin, 18(2), 137–149.
- Solak, M.H., Gücin, F., Yılmaz, F., Işıloğlu, M. (2003). Some macrofungi from Çanakkale Province. Ot Sistematik Botanik Dergisi, 10(1), 97–109.
- Şat Güngör, B. (2011). Measuring Plant Species Diversity in Alpine Zones: A Case Study at The Kazdağı National Park, in Turkey. Archives of Biological Science Belgrade, 63(4), 1147-1156.
- Şen, İ., Allı, H., Işıloğlu, M. (2014). Bigadiç (Balıkesir) Yöresi Makrofungusları. Mantar Dergisi, 5(2), 9-16.
- Uysal, İ. (2010). An overview of plant diversity of Kazdağı (Mt. İda) Forest National Park, Turkey. Journal of Environmental Biology, 31, 141-147.
- Yılmaz, F., Işıloğlu, M. (2002). Macrofungi of Değirmenboğazı (Balıkesir). Turkish Journal of Botany, 26, 161-164.
- Yılmaz-Ersel, F., Solak, M.H. (2004). Contributions to the Macrofungi of İzmir Province. Turkish Journal of Botany, 28, 487-490.
- Yılmaz, F., Öder, N., Işıloğlu, M. (1997). The macrofungi of the Soma (Manisa) and Savaştepe (Balıkesir) districts. Turkish Journal of Botany, 21, 221–230.

(Received for publication 27 December 2016; The date of publication 15 August 2017)