

Contribution to the Macrofungi Flora of Sultan Mountain, Turkey

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Abstract: This investigation was done on the macrofungi specimens collected from Sultan Mountain situated in the Inner West Anatolia between May 2004 and April 2005. A total of 34 taxa belonging to 18 families were identified and are listed here in.

Keywords: Macrofungi, Sultan Mountain, Turkey

Sultan Dağı (Türkiye) Makrofungus Florasına Katkılar

Özet: Bu çalışma İç Batı Anadolu'da yer alan Sultan Dağı'ndan Mayıs 2004 ile Nisan 2005 arasında toplanan makrofungus örnekleri üzerine yapılmıştır. Çalışmada toplam 18 familyaya ait 34 takson belirlenmiştir.

Anahtar Kelimeler: Makrofungus, Sultan Dağı, Turkey

1. Introduction

Macrofungi studies have long been of interest to scientists as well as the public due to their important roles in human life, such as their beneficial and harmful effects on forests, their use in the pharmacology industry, and the mass production of cultivated fungi in the food industry, as well as their vital role in biodegradation [1].

Although there has been an increase in the amount of research concerned with the determination of the macrofungi of Turkey in recent years, many areas of the country have not been studied yet, and others are in progress [2-7]. The Sultan Mountain was chosen as the research area for this study, because its macrofungi have not been investigated.

The aim of this study is to determine macrofungi species in the research area and thus

provide more data on the macrofungi flora of Turkey.

1.1. Description of the research area

Sultan Mountain is located in the inner west of Anatolian part of Turkey. The mountain is surrounded by Afyon in the North, Konya (Akşehir) in the East, Isparta in the South (Fig. 1). The climate of Sultan Mountain is humid and semi-humid Aegean type. The annual average temperature is 14-26 °C. An altitude is 2.169 m. The rainfall in the region is 450-1300 mm. The common soil types in the mountain are limeless brown soils and grumusols. There are a number of streams, lakes and saturated soils in region.

In the study area the leathery leafed, major plants are *Quercus*, *Pinus* and *Fagus* mixed forests. Also *Juniperus oxycedrus* and evergreen shrubs (600-900 m) are widespread.

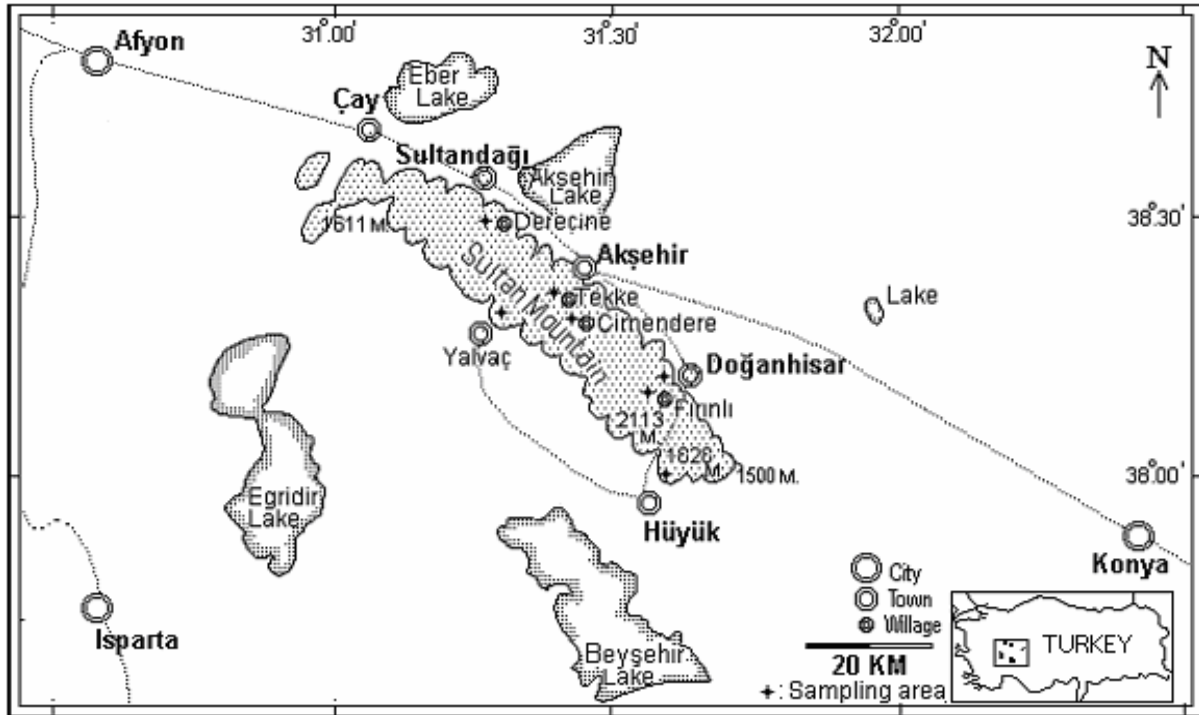


Fig. 1. Map of the study area

2. Material and Method

The materials for this study were collected during some field trips between May 2004 and April 2005. Macrofungi samples were removed from ground with a great care to avoid damage to the base and other fragments. Soils were removed with using a soft brush. The habitat and morphological characteristics of the macrofungi were noted and photographed for diagnosis during the collection. Insecticide was used for protecting fresh samples from insect larvae contamination. Samples were dried, preserved in polythene bags and numbered. In the laboratory, morphological features, especially the spore properties of macrofungi species, were identified by Moser [8], Breitenbach and Kranzlin [9,10,11], Jordan [12] and Philips [13]. Samples are kept in the herbarium of Department of Biology, Universty of Celal Bayar, Manisa, Turkey.

3. Results and Discussion

In this study 34 macrofungi taxa belonging to 18 families were identified. Of all the species

of macrofungi that we determined, 8.9% belonged to Ascomycetes and 91.1% to Basidiomycetes. These rates show curious parallelism between the previous studies conducted in other fields [4, 6, 7, 14,15].

Most of the species determined in this study were collected in natural areas of the Sultan Mountain (Afyon). It was found that the distribution of macrofungi species was low in the hot and dry season whilst they were rich in spring and autumn season in relation to humid climate as well as the richness of the flora in these seasons.

The macrofungi flora of Turkey is similar to that of Europe, with small differences [12]. Macrofungi species growing on trees are particularly similar.

Species found in the research are given below. The numbers indicate the herbarium numbers.

Ascomycetes

Morchellaceae

Morchella esculenta (L.) Pers., SM1 (10.05.2004, Tekke)

Helvellaceae

Helvella leucopus Pers., SM2 (11.05.2004, Çimendere)

Pezizaceae

Peziza sp., SM3 (09.06.2004, Hüyük)

Basidiomycetes

Polyporaceae

Fomes fomentarius Fr., SM4 (19.04.2005, Yalvaç)

Lactiporus sulphureus (Bull.: Fr.) Fr., SM5 (13.05.2004, Hüyük)

Polyporus squamosus Fr., SM6 (13.05.2004, 14.10.2004, Hüyük)

Polyporus arcularius (Batsch) Fr., SM7 (10.05.2004, Akşehir)

Trametes versicolor (Fr.) Pil., SM8 (16.04.2005, Sultandağı)

Daedaleopsis sp., SM9 (06.06.2004, Tekke)

Ganodermataceae

Ganoderma lucidum (Leyss.:Fr.) Karst., SM10 (12.10.2004, Fırınlı)

Stereaceae

Stereum hirsutum (Wild.:Fr.) S. F. Gray., SM11 (11.10.2004, Dereçine)

Boletaceae

Suillus bovinus (L.:Fr.) O. Kuntze., SM12 (08.06.2004, Çimendere)

Suillus bellinii (Inz.) Watling., SM13 (08.06.2004, Çimendere)

Coprinaceae

Coprinus comatus (Müll.:Fr.) S.F.Gray., SM14 (11.10.2004, Doğanhisar)

Coprinus atramentarius (Bull.:Fr.) Fr., SM15 (09.05.2004, Sultandağı)

Tricholomataceae

Mycena strobilicola Favre & Kühn., SM16 (19.04.2005, Yalvaç)

Marasmius oreades (Bolt:Fr.) Fr., SM17 (10.05.2004, Dereçine)

Clitocybe geotropa (Bull.:Fr.) Quel., SM18 (18.04.2005, Hüyük)

Lepista nuda (Bull.:Fr.) Cooke., SM19 (12.10.2004, Fırınlı)

Russulaceae

Lactarius deliciosus (Fr.) S.F.Gray., SM20 (06.06.2004, Akşehir)

Lactarius piperatus (Scop) Fr., SM21 (07.06.2004, Akşehir)

Russula delica Fr., SM22 (19.04.2005, Yalvaç)

Agaricaceae

Agaricus arvensis Schff.:Fr., SM23 (07.06.2004, Tekke)

Agaricus campestris Fr.: L., SM24 (08.06.2004, Doğanhisar)

Lycoperdaceae

Lycoperdon molle Pers., SM25 (14.10.2004, Yalvaç)

Lycoperdon perlatum Pers., SM26 (05.06.2004, Sultandağı)

Calvatia sp., SM27 (17.04.2005, Çimendere)

Geastraceae

Geastrum pectinatum Pers., SM28 (11.05.2004, Fırınlı)

Schizophyllaceae

Schizophyllum commune Fr., SM29 (16.04.2005, Dereçine)

Pleurotaceae

Pleurotus ostreatus (Jacq.:Fr.) Kummer., SM30 (10.10.2004, Dereçine)

Pleurotus eryngii (DC.:Fr.) Maire., SM31 (12.10.2004, Tekke)

Bolbitiaceae

Agrocybe cylindracea (DC. Fr.) Maire., SM32 (09.06.2004, Yalvaç)

Strophariaceae

Stropharia coronilla (Bull. Fr.) Quel., SM33 (18.04.2005, Hüyük)

Auriculariaceae

Auricularia auricula Hook., SM34 (12.05.2004, Fırınlı)

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