

Contributions to the Macrofungi of İzmir Province

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Abstract: This study was based on the macrofungi collected from İzmir province between 1993 and 2002. As a result of field and laboratory studies 55 taxa belonging to 28 families were identified and are presented as a list. Three of these (*Geastrum badium* Pers., *G. fornicatum* (Huds.) Hook and *Collybia distorta* (Fr.) Quél.) are new records for the Turkish macromycota.

Key Words: Macrofungi, Turkish macromycota, İzmir

İzmir İli Makrofunguslarına Katkılar

Özet: Bu çalışma 1993 ile 2002 yılları arasında İzmir ilinden toplanan makrofunguslar üzerinde yapılmıştır. Arazi ve laboratuvar çalışmaları sonucunda 28 familyaya ait 55 takson belirlenmiş ve liste halinde sunulmuştur. Bu taxonlardan üç tanesi (*Geastrum badium* Pers., *G. fornicatum* (Huds.) Hook ve *Collybia distorta* (Fr.) Quél.) Türkiye makromikotası için yeni kayıttır.

Anahtar Sözcükler: Makrofunguslar, Türkiye makromikotası, İzmir

Introduction

Many studies on the macrofungi of Turkey have been carried out (Mat, 2000). However, the macromycota of many provinces have not yet been determined. Several studies have been undertaken to determine the macrofungi growing in İzmir. As a result of these studies, 107 taxa have been reported from the area (Gücin, 1993; Solak, 1998; Solak et al., 1999; Asbagh & Solak, 2000).

The aim of this study was to contribute further to the macromycota of İzmir province and to add records to the macromycota of Turkey.

Materials and Methods

The specimens were collected during field trips in İzmir province between 1993 and 2002. The morphological and ecological characteristics of the macrofungi were recorded and photographed in their natural habitats. The specimens were brought to the laboratory where spore prints were taken and the spores photographed. Dried specimens were numbered and

placed in sealed bags. In addition, they were placed in a deep freeze for a week to kill internal and external colonists.

The specimens were identified by using the following references: Marchand (1973), Phillips (1981), Moser (1983), Breitenbach & Kranzlin (1984), and Courtecuisse & Duhem (1992). All specimens have been retained at the herbarium of Muğla University.

Results

The herbarium numbers, dates of collection and localities of the taxa determined in this research are given below. New species for the Turkish macromycota are indicated with an asterisk.

Ascomycetes

Helvellaceae

1. *Helvella crispa* Fr.

İzmir, Kemalpaşa, in mixed forest, 29.11.1998, FY. 1070.

Morchellaceae

2. Disciotis venosa (Pers.) Boud.

İzmir, Bergama, Kozak plateau, Göbeller village, Dallık area, in *Pinus pinea* forest, 23.04.1993, S. 604.

Pezizaceae

3. Tarzetta catinus (Holmsk. ex Fr.) Korf & J.K.Rogers

İzmir, Sabuncubeli, 5 km, in *Pinus* forest, 20.04.1995, S. 409.

Terfeziaceae

4. Tirmania pinoyii (Maire) Malencon

İzmir, Kiraz, Şemsiler village, Kemeraltı area, in pasture, 25.01.2001, FY. 1189.

Basidiomycetes

Agaricaceae

5. Agaricus augustus Fr.

İzmir, Bornova, Osmangazi, in pasture, 10.01.1994, S. 227.

Amanitaceae

6. Amanita ovoidea (Bull.) Link

İzmir, Balçova, Teleferik, in conifer forest, 18.10.1998, FY. 919.

Bolbitiaceae

7. Agrocybe pediades (Pers.: Fr.) Fayod

İzmir, Kiraz, Şemsiler village, Kemeraltı area, among grass, 27.1.2002, FY. 2183.

Boletaceae

8. Boletus luridus Schaeff.: Fr.

İzmir, Balçova, Teleferik, in conifer forest, 25.10.1998, FY. 940.

Clathraceae

9. Clathrus ruber Micheli: Pers.

İzmir, Selçuk, Tavşan hill, in olea trees, 06.12.1997, S. 907.

Clavulinaceae

10. Clavulina cristata (Fr.) Schroet.

İzmir, Balçova, around the radar, 15.11.1998, S. 992.

Coprinaceae

11. Coprinus atramentarius (Bull.: Fr.) Fr.

İzmir, Balçova, Teleferik, in conifer forest, 26.05.1996, FY. 817.

12. C. auricomus Pat.

İzmir, Kiraz, Şemsiler village, bottom of populus tree, 27.10.2002, FY. 2175.

13. Panaeolus campanulatus (Bull.: Fr.) Quél.

İzmir, Sabuncubeli, in *Pinus brutia* forest, 03.11.1998, S. 970.

14. P. foenicicii (Pers.) Schroet.

İzmir, Kiraz, Şemsiler village, Kemerüstü area, in meadows, 27.1.2002, FY. 2179.

15. P. rickenii Hora

İzmir, Sabuncubeli, in *Pinus* area, 23.11.1997, S. 820.

16. P. sphinctrinus (Fr.) Quél.

İzmir, Bayındır road, on the dung, 11.01.1994, S. 234.

17. Psathyrella candolleana (Fr.) Maire

İzmir, Kaymakçı, in meadows, 12.01.1994, FY. 773.

Cortinariaceae

18. Inocybe geophylla var *lilacina* (Bull.: Fr.) Kumm.

İzmir, Sabuncubeli, in *Pinus* area, 12.11.1998, S. 1058.

Crepidotaceae

19. Crepidotus variabilis (Pers.: Fr) Kumm.

İzmir, Sabuncubeli, on pine twigs, 01.01.1996, S. 531.

Geastraceae

20. *Geastrum badium Pers.

İzmir, roadside between Kemalpaşa and Torbalı, 16.12.1993, FY. 84.

21. *G. fornicatum (Huds.) Hook.

İzmir, Bergama, Kozak plateau, Göbeller village, Dallık area, under *Pinus pinea*, 16.04.1993, S. 591.

22. G. vulgatum Vitt.

İzmir, Bayındır, in grass, 19.11.1997, FY. 867.

Hygrophoraceae

23. *Hygrocybe conica* (Scop.: Fr.) Kumm.

İzmir, Menderes, Orhanlı village, in mixed forest, 05.02.1994, S. 309.

24. *H. nigrescens* (Quél.) Kuehn.

İzmir, Balçova, Teleferik, in *Pinus* area, 29.11.1998, FY. 1069.

25. *H. persistens* (Britz.) Britz.

İzmir, Balçova, around the radar, in *Pinus* area, 15.11.1998, FY. 991.

26. *H. subglobispora* (P.D.Orton) Moser

İzmir, Balçova, Teleferik, in *Pinus* area, 25.10.1998, FY. 929; Balçova, radar, in *Pinus* area, 15.11.1998, FY. 1006.

Lepiotaceae

27. *Lepiota castanea* Quél.

İzmir, roadside between Kemalpaşa and Torbalı, in conifer area, 23.11.1997, FY. 844.

28. *L. clypeolaria* (Bull.) Kumm.

İzmir, roadside between Kemalpaşa and Torbalı, in conifer area, 23.11.1997, FY. 827.

29. *L. felina* Quél.

İzmir, Kozak plateau, Yukarıbey village, Çamurluklar area, 26.11.1994, S. 638.

Lycoperdaceae

30. *Vascellum pratense* (Pers.) Kreisel

İzmir, Yamanlar mountain, around Karagöl, 10.12.1993, S. 55.

Paxillaceae

31. *Tapinella panuoides* (Fr.: Fr.) Gilb.

İzmir, Balçova, Teleferik, in *Pinus* area, 29.11.1998, FY. 1075.

Phallaceae

32. *Phallus impudicus* L.

İzmir, Tire, in the park, 12.01.1994, FY. 806.

Pleurotaceae

33. *Pleurotus eryngii* (DC.: Fr.) Quél.

İzmir, Selçuk, Tavşan hill, in pasture, 06.12.1997, S. 906.

Pluteaceae

34. *Pluteus romellii* (Britz.) Sacc.

İzmir, Buca, Belenbaşı village, in *Pinus* area, 21.12.1993, S. 93

Polyporaceae

35. *Bjerkandera adusta* (Fr.) Karst.

İzmir, Kiraz, Şemsiler village, on trunk of populus, 27.10.2002, FY. 2170.

36. *Cerrena unicolor* (Fr.) Murr.

İzmir, Tire, on *Quercus* log, 15.03.1998, FY. 2177.

37. *Meripilus giganteus* (Pers.) Karst.

İzmir, Bergama, Kozak plateau, Yukarıbey village, in *Quercus* forest, 26.11.1994, S. 620

38. *Phaeolus schweinitzii* (Fr.) Pat.

İzmir, Kemalpaşa, on *Pinus* stump, 29.11.1998, FY. 1073.

39. *Polyporus arcularius* Batsch: Fr

İzmir, Buca, Belenbaşı village, on twigs, 24.04.1994, S. 360

Ramariaceae

40. *Ramaria stricta* (Fr.) Quél.

İzmir, Beydağ, neighbourhood of the mercury mine, in *Pinus* area, 22.02.1998, FY. 916.

Russulaceae

41. *Lactarius chrysorrheus* Fr.

İzmir, Bergama, Kozak plateau, in conifer forest, 18.11.1998, S. 1037.

42. *Russula atropurpurea* Krbh.

İzmir, Buca, Belenbaşı village, 3 km, in conifer area, 09.01.1994, S. 684.

Strophariaceae

43. *Pholiota tuberculosa* (Schaffer: Fr.) Kumm.

İzmir, Sabuncubeli, in *Pinus* forest, 03.11.1998, S. 963.

Thelephoraceae

44. *Boletopsis leucomelaena* Pers.

İzmir, Sabuncubeli, in *Pinus* forest, 14.11.1998, S. 983.

45. *Hydnellum ferrugineum* (Fr.: Fr.) Karst.

İzmir, Sabuncubeli, on stump, 18.11.1995, S. 439; İzmir, Balçova, radar, bottom of the stump, 15.11.1998, FY. 995.

46. *Sarcodon scabrosus* (Fr.) Karst.

İzmir, between Kemalpaşa and Armutlu, Çınardibi village, bottom of the tree, 17.11.2002, FY. 2176.

Tricholomataceae

47. *Armillaria mellea* (Vahl: Fr.) Kumm.

İzmir, Balçova, Teleferik, in conifer forest, 25.10.1998, FY. 941.

48. *Clitocybe graminicola* Bon

İzmir, Kiraz, Şemsiler village, Kemerüstü area, in grass, 27.10.2002, FY. 2186.

49. *C. maxima* (Fl.Wett.: Fr.) Kumm.

İzmir, Kozak plateau, Göbeller village, 09.01.1994, S. 607.

50. *C. phylophila* (Pers.: Fr.) Kumm.

İzmir, Buca, Belenbaşı village, 15.12.1993, S. 65.

51. *C. squamulosa* (Pers.: Fr.) Kumm.

İzmir, Beydağ, environs of mercury mine, in conifer area, 30.12.2001, FY. 2039.

52. **Collybia distorta* (Fr.) Quéf.

İzmir, Buca, Belenbaşı village, in *Pinus* area, 24.04.1994, S. 359.

53. *Marasmiellus ramealis* (Bull.: Fr.) Sing.

İzmir, Sabuncubeli, in *Pinus* area, 27.10.1997, S. 874.

54. *Marasmius rotula* (Scop.: Fr.) Fr.

İzmir, Kaymakçı hill, in grass, 14.11.1998, FY. 980; İzmir, Bayındır road, in pasture, 11.01.1994, S. 241.

Tulostomataceae

55. *Battarea phalloides* (Dicks.) Pers.

İzmir, in the garden of Ege University, 30.07.1998, FY. 918.

Discussion

By the end of the study 55 taxa belonging to 28 families were identified for İzmir. Four of these were *Ascomycetes*, and the rest belonged to the *Basidiomycetes*. Six taxa were found by Gücin (1993) in the Bergama region, 104 taxa were found by Solak et al. (1999) in the İzmir region, 1 taxon was found by Solak (1998) in the İzmir-Manisa region, and 15 taxa were found by Asbagh and Solak (2000) in the Dede Mountain and Balçova Dam region. When common taxa are excluded, the number of remaining taxa in these regions is 107. Therefore, with this study, the number of taxa found in the İzmir region has reached to 162.

Three species (*Geastrum badium*, *G. fornicatum* and *Collybia distorta*) were added to the Turkish macromycota.

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