

NEW RECORDS OF MICROFUNGI FROM TURKEY

SEVDA KIRBAĞ

*Department of Biology,
Science and Arts Faculty, Firat University, 23169 ELAZIĞ, Turkey*

Abstract

Plasmopara pusilla (de Bary) Schröter, *Peronospora ranunculi* Gaüm, *Hormotheca robertiani* (Fr.) Höhnelt., *Melampsora apocyni* Tranzschel, *Melampsora magnusiana* Wagn. ex. Kleb., *Sporonema punctiforme* (Fuckel) Höhnelt., *Sporonema phacidioides* Desm., *Septoria euphorbia* Kalchbr., were collected for the first time in Turkey. Short descriptions of fungi are given with their collection sites.

Introduction

The microfungi living on the vascular plants growing naturally in Turkey have not been investigated sufficiently. Only a few Turkish and foreign mycologists have worked on these (Göbelez, 1962; Bremer *et al.*, 1947, 1952). The microfungi of Turkey have been studied extensively during the last ten years. The present paper reports eight species which are new records for the mycoflora of Turkey.

Materials and Methods

The study area is located in the North-east of province in Turkey. It is included in the square B7 (Davis, 1964) at an altitude of 1020-1860m. The typical climate of the region is Mediterranean which is characterized by the hot and dry summer and extremely cold and snowy winters.

The materials for this study were collected from Elazığ province during 2000-2001. The host specimens were prepared according to established herbarium techniques. Host plants were identified using the flora of Turkey (Davis, 1964-1985). The fungi were identified after reference to related literature (Benua 1973; Ellis & Ellis, 1987; Svasman, 1960; Ulyanişhev, 1968; Ulyanişhev, 1975). All the collected specimens are kept at the Firat University Herbarium.

Results

In the light of the literature on Turkish microfungi (Göbelez, 1962; Tamer *et al.*, 1987, 1989, 1990, 1992; Güven *et al.*, 1993; Şahin & Tamer 1998) the species reported herein are new records for Turkish mycoflora.

Oomycota

Plasmopara pusilla (de Bary) Schröter

Spots roundish, up to 1-2 mm diam, brown, shining, regular or irregular. Sporangioophores in group, 70-100x 6-10 µm, 1-2 monopodial branch, sporangia elliptic usually ovoid, 26-30 x 21-26 µm.

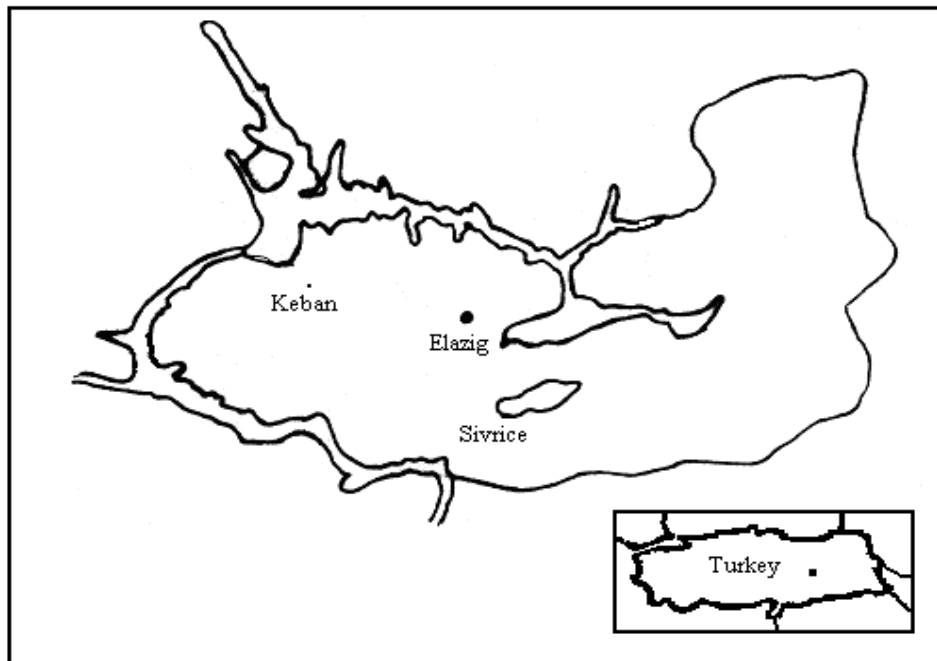


Fig. 1. The borders of research area.

On leaves of *Geranium tuberosum* L. subsp. *tuberosum* (Geraniaceae) B7 Elazığ: Sivrice- Gözeli 3 km. 1140 m. 05.05.2001. SK 1099.

***Peronospora ranunculi* Gaüm**

Spots up to 1-3 mm diam., brown-black. Sporangiphores single or small group, 200-600x 8-10 µm, dicotomic branch. Sporangia elliptic grey-violet, 27.7 x 21.6 µm.

On leaves of *Ranunculus constantinopolitanus* (DC.) d'Unv. (Ranunculaceae) B7 Elazığ: Sivrice 1025m. 05.05.2001 SK1101.

Ascomycota

***Hormotheca robertiani* (Fr.) Höhnelt.**

Pseudothecia superficial, upto 150 µm, black, shining, Ascospores pale olivaceous, 1-septate, 10-13 x 4-5 µm.

On leaves of *Geranium tuberosum* L. subsp. *tuberosum* (Geraniaceae) B7 Elazığ: Sivrice -Gözeli 3 km. 1140 m. 05.08.2001. SK 1112.

Basidiomycota

***Melampsora apocyni* Tranzchel**

Uredinia on leaves, brown, up to 1-2 mm diam., paraphyses capitate, hyaline, commonly thick wall, 34-47 µm long, head 20 µm diam. Urediniospores ovoid, ellipsoid 20-23 x 17.5-20 µm, yellow-brown, the wall 3-3.5 µm, hyaline and spinose.

On leaves of *Trachomitum venetum* L. (Apocynaceae) B7 Elazığ: Keban Bademli Village 03.10.2000 1860m. SK 1110.

***Melampsora magnusiana* Wagn. ex. Kleb.**

Uredinia on leaves, black, up to 1-3 mm diam., paraphyses clindiric 40-50 µm. Urediniospores ovoid, rarely oblong or obavate, 17.5-22.5 x 17.5-18 µm, the wall about 3-3.5µm, hyaline and spinose.

On living leaves of *Papaver rhoeas* L. (Papaveraceae) B7 Elazığ: Sivrice-Gözeli 5.km 08.08.2001 1250 m. SK1240.

Deuteromycota

***Sporonema punctiforme* (Fuckel) Hoehnel.**

Conidiomata often in groups, up to 300-600 µm diam., 100-200 µm high, Conidiophores 30-32 x 3.5-4.0 µm, conidia cylindrical, hyaline, the wall smooth, 4-6 x 1.5-1.8 µm.

On leaves and stems of *Rubia tinctorum* L. (SK 1335) and on leaves of *Asperula glomerata* (Bieb.) Griseb. subsp. *glomerata* (Rubiaceae) B7 Elazığ: Sivrice DDY Camping 1025m. 08.08.2001 SK1125.

***Sporonema phacidioides* Desm.**

Conidiomata hypostroma, in groups, 150 µm diam., 100 µm height. Conidiophores 35 x 4 µm, conidia ovoid – oblong, hyaline, the wall smooth, 4-5.5 x 2-2.5 µm.

On living leaves of *Medicago lupina* L. (Fabaceae) B7 Elazığ: Sivrice Boru Industry. 1020m. 05.07.2001 SK1131.

***Septoria euphorbia* Kalchbr**

Spots ovoid, about 1 mm diam., dark-brown. Pycnidia epiphyllous, few (2-5) on each spot, ovoid-subglobose 90-150 µm Conidiophores 30-32x3.5-4.0 µm, conidia cylindrical, hyaline, indistinctly 1-5 septate, 23-85 x 2.5-3.5 µm, wall smooth.

On leaves of *Euphorbia macroclada* Boiss.(Euphorbiaceae) B7 Elazığ: Sivrice University Camping 1020m. 06.010.2001 SK1146.

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