

1-1-2000

## Two New Genus Records for the Mycoflora of Turkey

ABDULLAH KAYA

Follow this and additional works at: <https://journals.tubitak.gov.tr/botany>



Part of the [Botany Commons](#)

---

### Recommended Citation

KAYA, ABDULLAH (2000) "Two New Genus Records for the Mycoflora of Turkey," *Turkish Journal of Botany*. Vol. 24: No. 5, Article 4. Available at: <https://journals.tubitak.gov.tr/botany/vol24/iss5/4>

This Article is brought to you for free and open access by TÜBİTAK Academic Journals. It has been accepted for inclusion in Turkish Journal of Botany by an authorized editor of TÜBİTAK Academic Journals. For more information, please contact [academic.publications@tubitak.gov.tr](mailto:academic.publications@tubitak.gov.tr).

## Two New Genus Records for the Mycoflora of Turkey

Abdullah KAYA

Yüzüncü Yıl University, Faculty of Education, Department of Science Education, Van - TURKEY

Received: 11.03.1999

Accepted: 07.03.2000

**Abstract :** *Crucibulum laeve* (Bull. ex DC.) Kambly (*Nidulariaceae*) and *Phaeomarasmium erinaceus* (Fr.) Kühn. (*Strophariaceae*) were recorded, at genus level, for the first time from Turkey.

**Key Words:** Macrofungi, New Records, Turkey

### Türkiye Mikoflorası İçin İki Yeni Cins Kaydı

**Özet :** *Crucibulum laeve* (Bull. ex DC.) Kambly (*Nidulariaceae*) ve *Phaeomarasmium erinaceus* (Fr.) Kühn. (*Strophariaceae*), cins düzeyinde, Türkiye'den ilk kez kaydedildi.

**Anahtar Sözcükler:** Makrofunguslar, Yeni Kayıtlar, Türkiye

### Introduction

The study materials were collected in 1998 in the provinces of Bitlis and Muş (Fig.1) during routine field trips. After a taxonomic investigation of the specimens and review of previous studies listed by Baytop (1) and Baytop and Mat (2), two of them, *Crucibulum laeve* (Bull. ex DC.) Kambly (*Nidulariaceae*) and *Phaeomarasmium erinaceus* (Fr.) Kühn. (*Strophariaceae*), were found to be new, at genus level, for the macrofungal flora of Turkey.

### Materials and Method

During field studies, color slides of the macrofungal specimens were taken in their natural habitats. After necessary notes were taken on their morphological and ecological features, they were put in specially prepared (separate) boxes and taken to the herbarium.

The identification of the specimens was performed with the help of Watling and Gregory (3), Breitenbach and Kranzlin (4), Buczacki (5) and Moser (6), and spore photographs were taken using a Nixon research microscope. Then the specimens were dried and put in polyethylene bags. The samples are kept in the Herbarium of Yüzüncü Yıl University Department of Biology.

### Results

#### Nidulariaceae

*Crucibulum laeve* (Bull. ex DC.) Kambly  
= *Crucibulum vulgare* Tul.

**Macroscopic features:** Fruiting body 4-8 mm across and 5-11 mm high, at first almost spherical to egg-shaped, later becoming deeply cup-shaped; outer surface whitish to yellow when young, brown to black-brown and tomentose when old, inner surface silvery-grey or cream-colored and one-layered; young samples entirely covered by a yellowish operculum which ruptures at maturity (Fig. 2a), revealing the entire cavity and letting the greenish-white and lens-shaped peridioles which contain the spores and are attached to the base of the cavity by fine mycelial strands become free. Each cup contains up to 15 peridioles 1-1.5 mm across.

**Microscopic features:** Spores 7-10 x 3-5 µm, elliptic, smooth, hyaline and non-amyloid (Fig. 2b); basidia clavate, with 2-4 spores but without a basal clamp; cystidal structure absent.

**Habitat:** According to the literature, *Crucibulum laeve* is reported to grow on rotten wood, twigs (7) and other decomposing plant debris, including overwintering cereal stubble (8).

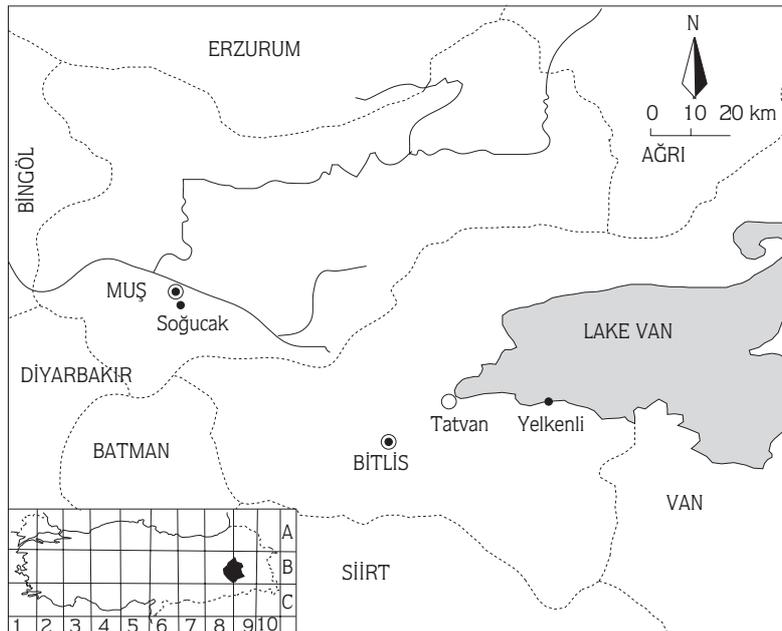


Figure 1. Macrofungus collection sites.

In our research area, it was collected in an unplanted garden in a poplar grove, on dead twigs of *Populus* sp.

**Distribution:** Muş, Soğucak Village, 21 June 1998, K. 534

*Crucibulum laeve*, which is also called "common bird's nest fungus" in European countries, is the most common and widespread (4) member of this family. For this reason, the presence of this species is to be expected in Turkey, besides the occurrence of some other members of *Nidulariaceae*, like *Cyahthus olla*, which were recorded by Işıloğlu and Watling (9), Gücin, Gezer and Tamer (10), and *Cyahthus vernicosus*, recorded by Gücin and Öner (11).

#### Strophariaceae

*Phaeomarasmium erinaceus* (Fr.) Kühn.

= *Pholiota erinacea* (Fr.) Rea

= *Naucoria erinaceus* (Fr.) Gillet

= *Phaeomarasmium aridus* (Pers) Singer

**Macroscopic features:** Cap 12-15 mm across, convex, flattened or umbilicate, brownish yellow to light brown, densely covered with small, fibrillose, spine-like pointed scales, margin at first fringed. Flesh thin and concolorous with cap, taste and smell not distinctive. Gills

reddish ochre, fairly distant and broadly adnate. Stipe 10-20 x 2-3 mm, more or less cylindrical or slightly tapering upwards, whitish or silky pallid above, usually curved, brownish yellow, coarsely squarrose scaly towards the base, ring absent (Fig. 3a).

**Microscopic features:** Spores 8.5-11 x 6-8.5 µm, ellipsoid to lemon-shaped, smooth, germ pore absent, thin-walled (Fig. 3b); basidia with 1, 2 or 4 spores; cystida more or less cylindrical.

**Habitat:** *Phaeomarasmium erinaceus* grows on wood, deciduous twigs (6), small branches, especially of willow, and other woody debris of broad-leaved trees in dump sites (3).

It was found growing on decomposing wood pieces on wet ground between leaf remains under *Quercus* sp.

**Distribution:** Bitlis, Tatvan, Yelkenli Village, 31 May 1998, K. 439.

This species can easily be recognized by its small size, dark-brown colour and squarrose cap and stem.

Although *Phaeomarasmium erinaceus* is not a more common species, it is widespread throughout Europe (5) and especially the British Isles (3). So the distribution of it in Turkey is to be expected.



Figure 2. *Crucibulum laeve* a. Fruiting body  
b. Spores.



Figure 3. *Phaeomarasmium erinaceus* a.  
Fruiting body b. Spores.

## Discussion

In this study, *Crucibulum laeve* (Bull. ex DC.) Kambly (*Nidulariaceae*) and *Phaeomarasmium erinaceus* (Fr.) Kühn. (*Strophariaceae*), belonging to Basidiomycetes have been identified for the first time, at genus level, from Turkey. Both fungi are more or less common and widespread with a northern or global distribution (4).

This means that they may also show distribution in Turkey. However, no record has yet been published. This may be because of the lack of floristic research on macrofungi in Turkey. The size of both taxa may also be another reason. They are probably often overlooked. With careful field study, it should be possible to find such small macrofungus specimens.

## References

1. Baytop, A., Türkiye'nin Makrofungusları ile ilgili bir yayın listesi, Tr. J. of Botany, 18: 175-185 (1994).
2. Baytop, A., Türkiye'nin Makrofungusları ile ilgili bir yayın listesi (Ek Liste), in Türkiye'de Mantar Zehirlenmeleri, Zehirli Mantarlar, ed. Mat, A., Tübitak Başvuru Kitapları, Ankara (1998).
3. Watling, R., Gregory, N. M., Orton, P. D., British Fungus Flora Part 7/ Cortinariaceae p.p., Royal Botanic Garden, Edinburgh (1993).
4. Breitenbach, J., Kränzlin, F., Fungi of Switzerland, Vol 2, Verlag Mykologia, Lucerne (1986).

5. Buczacki, S., Mushrooms and Toadstools of Britain and Europe, W. Collins Sons & Co Ltd., London (1992).
6. Moser, M., Keys to Agarics and Boleti, Gustav Fischer Verlag, Stuttgart (1983).
7. Phillips, R., Mushrooms and other fungi of Great Britain & Europe, Pan Books, London (1981).
8. Jordan, M., The Encyclopedia of Fungi of Britain and Europe, David & Charles Book Co., UK (1995).
9. Işılođlu, M., Watling, R., Macromycetes of Mediterranean Turkey, Edinb. J. Bot. 49 (1): 99-121 (1992).
10. Gücin, F., Gezer, K., Tamer, A. Ü., Eskişehir Yöresinden Bazı Makrofunguslar. IX. Ulusal Biyoloji Kongresi, Bildiriler Kitapçığı, cilt 3, Sivas (1988).
11. Gücin, F., Öner, M., Manisa İli Dahilinde Yetişen Makrofunguslar, Dođa Bilim Dergisi, Temel Bilimler 6 (3): 91-96 (1982).