

## Three New Records for the Turkish Mycoflora

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**Abstract :** Three noteworthy fungi from Ordu and Tokat are described and illustrated. One of them, *Peziza applanata* (Hedw.: Fr.) Alb. & Schwein is pezizoid; one, *Sebacina epigaea* (Berk. & Broome) Neuh., is tremelloid; and one, *Gomphus stereoides* Corner is cantharelloid.

**Key Words:** *Peziza*, *Sebacina*, *Gomphus*

### Türkiye Mantar Florası İçin Üç Yeni Kayıt

**Özet :** Ordu ve Tokat'dan üç önemli mantar tanımlanmış ve resmedilmiştir. Bunlardan birisi, *Peziza applanata* (Hedw.: Fr.) Alb. & Schwein pezizoid; birisi, *Sebacina epigaea* (Berk. & Broome) Neuh., tremelloid; ve birisi de *Gomphus stereoides* Corner cantharelloiddir.

**Anahtar Sözcükler:** *Peziza*, *Sebacina*, *Gomphus*

### Introduction

During field studies made in 1998, some fungi were collected from Ordu and Tokat provinces. Studies then revealed that they are new records for the fungal flora of Turkey.

The locations from which the specimens were collected are shown in Figure1. Specimens were examined using the standard methods followed in mycology. Color photographs and some ecological and morphological features were obtained at the collection site. For photographs in the field, up to a ratio of 1:1, a macro-objective of normal focal length was used. Fujicolor negative film was employed.

At the laboratory excised pieces of fungus were moistened by the addition of a few drops of Clemençon's solution and placed in a damp chamber to soften completely. After being given some time to dry, they were sectioned and examined for identification (1).

Olympus and Nikon research microscopes were used for microscopy and photomicrography.

The dried specimens are stored in plastic boxes, each with its appropriate herbarium label and deposited in personal herbaria at Karadeniz Technical University and Gaziosmanpaşa University.

Many studies have been carried out focusing on larger Turkish fungi (2,3). Despite the fact that a great deal of research has been conducted on the Turkish mycoflora, there is still much to be done in all regions of Turkey (4).

Classification is according to Bold, Alexopoulos and Delevoryas (5).

Kingdom: *Myceteae*  
Division: *Amastigomycota*  
Subdivision: *Ascomycotina*  
Class: *Ascomycetes*  
Subclass: *Hymenoascomycetidae*

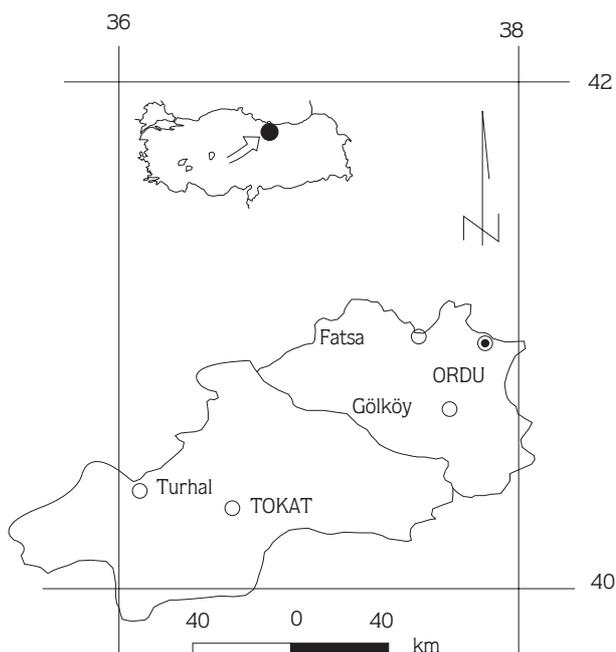


Figure 1. Collection sites of the fungi.

Order: *Pezizales*  
 Family: *Pezizaceae*

*Peziza applanata* (Hedw.:Fr.) Alb. & Schwein (Syn.: *Peziza, depressa* Pers.:Fr. (6)

**Macroscopic features:** Fruiting body 20-40 mm, irregularly cup- to saucer-shaped (Figure 2a). Fruiting body with a short stalk, inner surface smooth, purple-to chestnut-brown, outer surface almost smooth, brighter than the inner surface. Fruiting body exuding a watery juice when cut. Growing solitary to clustered (6).

**Microscopic features:** Spores elliptical (Figure 2b) with sparse warts, guttulate, 17-20 x 8.5-11 µm. Asci 8-spored (Figure 2c), 340-400 x 14-19 µm; paraphyses cylindrical, septate.

**Habitat:** On loamy ground among moss.

**Distribution:** Tokat-Turhal, 30 Sept. 1998, SES 1006.

The genus *Peziza* is made up of fungi whose asci line is the inner or upper surface of a cup-shaped fruiting body. The ascus opens at maturity and discharges its spores into the air. During collection of the fungus we saw a cloud of spores rising above the mushroom.

The members of this genus known in Turkey are *Peziza succosa* Berk., *Peziza badia* Pers., *P. badia-confusa* Pers., *P. cerea* Pers., *P. repanda* Pers., *P. varia* Bres., and *P. vesiculosa* Bull. (7). Mycologists have not completely explored the various species of the genus *Peziza* and their distribution in Turkey.

Subdivision: *Basidiomycotina*

Class: *Basidiomycetes*

Subclass: *Phragmobasidiomycetidae*

Order: *Tremellales*

Family: *Tremellaceae*

*Sebacina epigaea* (Berk. & Broome) Neuh. (6)

**Macroscopic features:** Fruiting body when moist appearing like a waxy patch up to 1 mm thick and several centimeters in extent (6). Filmy and barely visible when dry, attached firmly to the substrate (Figure 3a). Gelatinous, white and shiny when moist, but dull and gray when dry, margin distinctly bounded and irregular.

**Microscopic features:** Hypobasidia 14-18 x 12-14 µm (Figure 3b), septate; spores oval, smooth, with granular contents, some germinating, 10-13 x 8-10 µm (Figure 3c). Resting spores with inflated tubercles present.

**Habitat:** Under *Carpinus orientalis* L. on plant debris on the ground.

**Distribution:** Ordu-Fatsa, 25 Sept. 1998, SES 1005.

Jelly fungi (*Tremellales*) can be soft and gelatinous, stiff and vary in shape. Generally they are not poisonous and a few can be eaten.

This fungus is the third record of the genus in Turkey. *Sebacina grisea* Bres. was recorded by Pilat (8) at Ilgaz Dağı. *S. incrustans* (Fr.) Tul., was recorded by Sesli in Trabzon-Maçka in 1992 (1). *Sebacina. incrustans* and *S. epigaea* are similar in appearance, but the habitat and their microscopic features are totally different. *S. incrustans* can live on living plants, unlike *S. epigaea*.

Subclass: *Holobasidiomycetidae*

Order: *Aphylophorales*

Family: *Gomphaceae*

*Gomphus stereoides* Corner (9).

**Macroscopic features:** The pale smooth ochraceous cinnamon fruit bodies are simple lobed and branched.

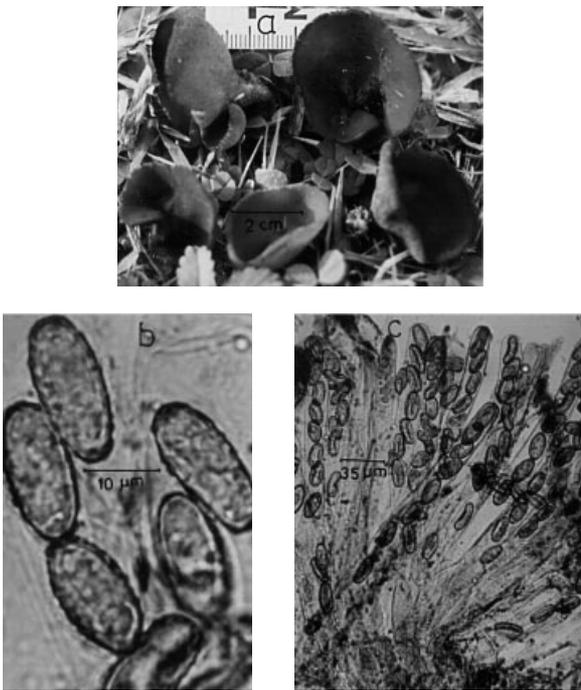


Figure 2. *Peziza applanata*: a. Fruit bodies, b. Spores, c. Asci.



Figure 4. *Gomphus stereoides*: a. Fruit bodies, b. Spores.

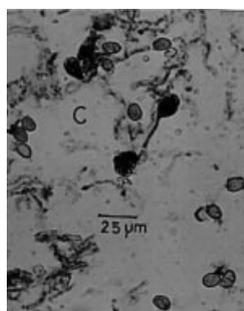
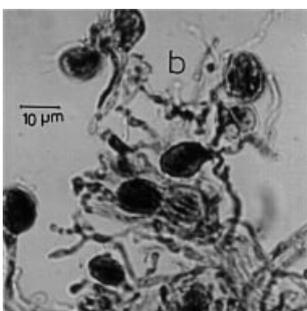
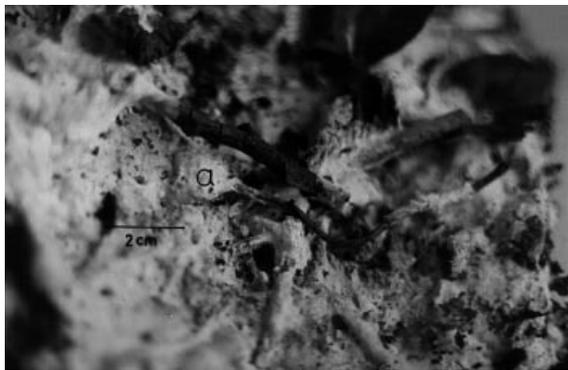


Figure 3. *Sebacina epigaea*: a. Fruit bodies, b. Hypobasidia and spores, c. Free spores.

The pileus is 5 cm, spatula shaped, stipes 1-4.5 cm x 3-6 mm. Some have recurved margins giving an infundibuliform appearance, 2-7 cm tall, greenish-gray, abhymenial surface smooth, glabrous, opaque or watery translucent, light ochraceous, not discoloring, adhymenial surface smooth, dull, pale, not discoloring (Figure 4a). Context 3-4 mm thick, stipe hollow rounded to somewhat flattened, concolorous except for white basal mycelium, sometimes 2-3 stipes joined at the base (9,10).

**Microscopic features:** Basidia 70-85 x 8-11 µm, clavate; spores 10-13 x 5-5.5 µm, ellipsoid ochraceous, ochraceous buff in mass, rugose, thick-walled (Figure 4b).

**Habitat:** Under *Picea orientalis* L.

**Distribution:** Ordu-Gölköy, 26 Sept. 1998, SES1007.

Except for the hyphae, the structure of the fungus is simple. Hyphae are longitudinal and compact.

According to the literature cantharelloid mushrooms recorded in Turkey are *Cantharellus cibarius* Fr., *C. ferruginascens* Orton, *C. infundibuliformis* (Scop.) Fr.,

*Craterellus cornucopioides* (L.:Fr.) Pers., *Pseudocraterellus sinuosus* (Fr.) Reid, *Cantharellus lutescens* Fr. and *Gomphus clavatus* S.F. Gray (11).

The genus *Gomphus* is basically northern in distribution. Examination of the literature will support this idea, but Turkey is not usually considered a northern country. Thus the occurrence of these species in a band across central Turkey is testimony to the physiographic features of the region.

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*G. stereoides* is the second member of this genus found in Turkey. *Gomphus clavatus* S.F. Gray was recorded by Işıloğlu and Öder (12) and Sesli (11).

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