



## Two new Ascomycete records for Turkish Mycota

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### Abstract

*Trichoglossum variabile* (E.J. Durand) Nannf. and *Helvella helvellula* (Durieu & Mont.) Dissing were recorded for the first time from Turkey. The new taxa are described and illustrated.

**Key words:** *Trichoglossum*, *Helvella*, new record, Turkey

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### Özet

*Trichoglossum variabile* (E.J. Durand) Nannf. ve *Helvella helvellula* (Durieu & Mont.) Dissing Türkiye'den ilk defa kaydedilmiştir. Yeni taksonlar tanımlanmış ve resimleri verilmiştir.

**Anahtar kelimeler:** *Trichoglossum*, *Helvella*, yeni kayıt, Türkiye

### 1. Introduction

The genus *Trichoglossum* Boud. is a member of the family Geoglossaceae and is known as earth tongue. Fruiting body of *Trichoglossum* is brownish black and hymenium not distinctly delimited from the stem. Hymenium and stem covered with stiff, acicular brown setae. Asci large, 4 or 8 spored, apical pore amyloid. They grow on the ground in meadows, forests and bogs. *Trichoglossum* differs from *Geoglossum* with brown setae and *Microglossum* Gillet with black ascostroma (Hanlin, 1998; Hansen and Knudsen, 2000).

The genus *Helvella* L., a member of the Helvellaceae is easily recognized in the field with its macroscopic features such as cup shaped to saddle shaped apothecia and whitish, greyish, brownish or black hymenium. It mostly grows as terrestrial but rarely on rotting wood (Hansen and Knudsen, 2000).

Because of the suitable climatic conditions for growth of fungi, type of vegetation and geology, Turkish mycota is very rich. However every part of the Turkey hasn't been studied yet. In recent years, studies on macro and microfungi are raised in Turkey. By these kind of studies Turkey's fungal diversity will be presented (Doğan and Aktaş, 2010; Akata and Yaprak, 2013; Güngör et al., 2013). The aim of the present study is to contribute Turkish mycota with new macrofungal records.

### 2. Materials and methods

Macrofungi samples were collected during routine field trips in different localities of Aydın and Isparta provinces in spring 2013. Morphological and ecological characteristics of the specimens were recorded and photographed. After field studies, specimens were taken to the laboratory and identified with the help of Mains (1954), Dissing (1966), Hansen and Knudsen (2000), and Kučera et al. (2008). The identified specimens were deposited at the fungarium of Muğla Sıtkı Koçman University.

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### 3. Results

After the laboratory studies, *T. variable* and *H. helvellula* which is called as “Parmak mantarı” and “Kara kulak mantarı” respectively were identified. In the light of the checklists and current literature both of them are new records for Turkish mycota (Solak et al., 2007; Sesli and Denchev, 2008).

#### 3.1 Helotiales

##### 3.1.1 Geoglossaceae Corda

##### 3.1.1.1 *Trichoglossum variable* (E.J. Durand) Nannf. (Figure 1).

Fruiting body 30-45 mm, dark brown to black, shiny, stipitate, clavate to subcapitate. Fertile part compressed, ellipsoidal and inflated. Setae are not distinctive in fertile part, but distinctive in sterile part of the fruiting body. Asci 203–224 × 16-17.6 μm, 8-spored, cylindrical to clavate, the pore weakly blued in Melzer’s reagent. Spores (70) 92–114.1 (120) × 5–6 μm, 9 septate, brown, tapering towards ends, early pigmented, straight or slightly curved. Paraphyses 2.0–2.5 μm in diameter, filiform, enlarged towards the apex. It grows among pine needles or in meadows, on soil.

Isparta, Isparta-Antalya way 50 km, Yanıklar district, in pine forest, on soil, 21.04.2013, H 306.

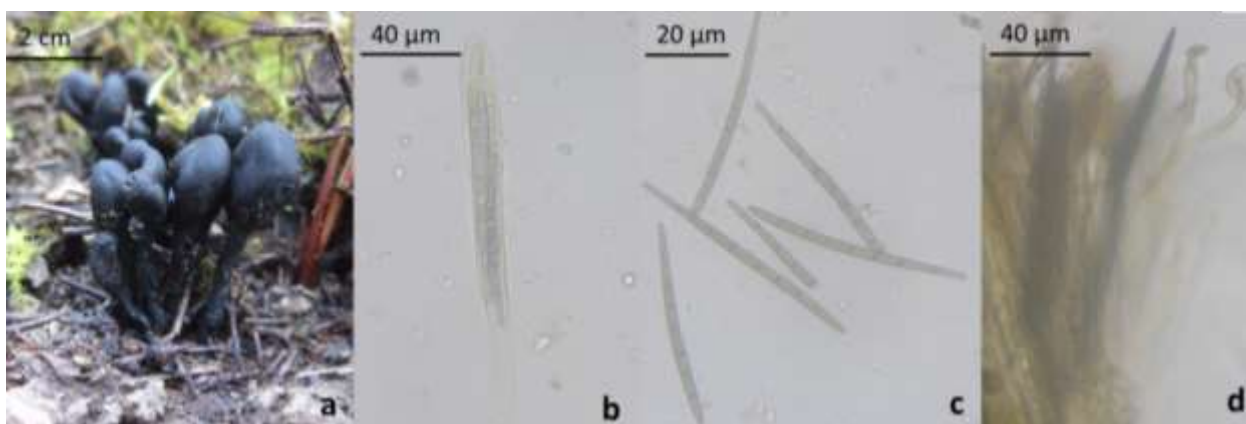


Figure 1. *Trichoglossum variable* a. frutingbody, b. ascus, c. spores, d. paraphyses and setae, H 306

#### 3.2 Pezizales

##### 3.2.1 *Helvellaceae* Fr.

##### 3.2.1.1 *Helvella helvellula* (Durieu & Mont.) Dissing (Figure 2).

Fruiting body small, 0.5-2 cm in diameter, cup to disc shaped, folded, margins scattered like a star, hymenium black, outside naked, concolorous with hymenium near the margin, but paler to almost whitish through the stipe. Stipe small, indistinct, with 2-4 anastomoses. Asci 8 spored, cylindrical to clavate, 14-17 μm broad. Spores 20-23 × 12–13.8 μm, with one large and a few small drops, often with pustules when young, later smooth, ellipsoidal, hyaline. Paraphyses straight, clavate, above enlarged, dark yellow to brown (Dissing, 1966).

Aydın, Bozdoğan, Örentaht village, in pine forest, 26.04.2013, H 382.

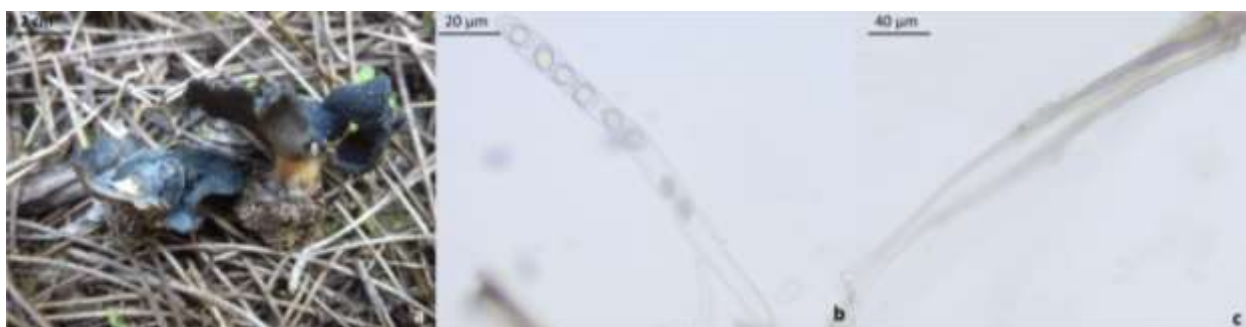


Figure 2. *Helvella helvellula* a. frutingbody, b. ascus and spores, c. paraphyses, H 382

### 4. Conclusion

In the present study, *T. variable* and *H. helvellula* are new records for Turkish mycota. *Trichoglossum variable* is closely related to *T. hirsutum* but can be distinguished with spores having fewer septa. Spores of *T. hirsutum* are 15

septate at the maturity. Another related species of *T. hirsutum* is *T. walteri*. But *T. walteri* differs with 9-14 septate spores (Kučera et al., 2008). In Turkey, only *Trichoglossum hirsutum* var. *hirsutum* was reported by Akata and Kaya (2013). We added second taxa of *Trichoglossum* for Turkish mycota.

*Helvella helvellula* and *H. leucomelaena* (Pers.) Nannf. are similar species with subsessile fruiting bodies and black hymenium. But *H. helvellula* differs from *H. leucomelaena* with ellipsoid and longer spores. The black colour of *H. helvellula* reminds of *H. corium* (O. Weberb.) Masee, but the two species can be differentiated other characteristics such as apothecium shape, anatomy, spore size, and distribution (Dissing, 1966). In Turkey, 21 taxa of *Helvella* have been reported by several researchers before (Solak et al., 2007; Sesli and Denchev, 2008; Akata and Kaya, 2012). *H. helvellula* is the twenty second taxon of the genus *Helvella* for Turkish mycota.

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