

## A New Record For *Otidea* Genus From Turkey

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**Abstract:** *Otidea onotica* (Pers.) Fuckel was collected from the fir forest located at Ankara- Kızılcahamam Soğuksu National Park. This is the sixth *Otidea* species for Turkey. A short whitish stalk and having dimensions of 12-13 x 5-6 µ characterize it. In this study, the distribution map and table for species of Genus *Otidea* in Turkey are also given.

**Key words:** *Otidea onotica*, New record, Kızılcahamam, National Park, Turkey.

### Türkiye’den *Otidea* Cinsi için Yeni Bir Kayıt

**Özet:** *Otidea onotica* (Pers.) Fuckel Ankara- Kızılcahamam Soğuksu Milli Parkı göknar ormanından toplandı. Bu Türkiye’de altıncı *Otidea* tür kayıdır. Kısa beyazımsı bir sap ve 12-13 x 5-6 µ boyutlarındaki askosporu karakteristiktir. Bu çalışmada, *Otidea* cinsi türlerinin Türkiye’deki yayılış haritası ve tablosu verilmiştir.

**Anahtar Kelimeler:** *Otidea onotica*, Yeni kayıt, Kızılcahamam, Milli Park, Türkiye

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### Introduction

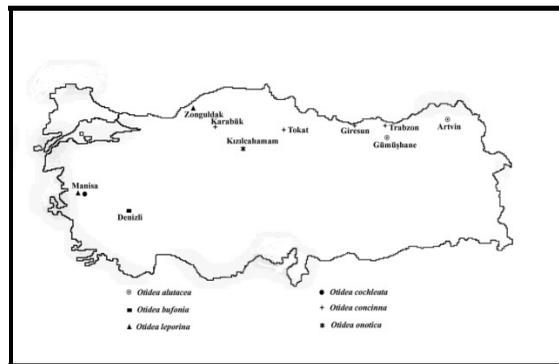
According to Sesli and Denchev (2009), five *Otidea* species were reported in Turkey. The first data on the distribution of *Otidea* genus in Turkey was given in 1982 by Gücin and Öner. They had collected *Otidea leporina* (Batsch) Fuckel and *O.cochleata* (Huds.) Fuckel in pine forest at Manisa-Gördes, but latter species was published as *O. umbrina* (Pers.) Bres. which is the synonym of *O.cochleata*. *O. cochleata* was found second time by Gücin *et al.* (1995) in a conifer forest in West Anatolia Region. Abatay (1988) found *O.leporina* in a mixed forest at

Zonguldak province. Later, Sesli (1998) contributed to related literature by adding

*O.concinna* (Pers.)Sacc. and *O. cochleata* found in pine forest at the Trabzon and Giresun area of Eastern Black Sea Region. Demirel *et al.* (2004) found *O.alutacea* (Pers.) Masee in a conifer forest located in Artvin province.

Uzun *et al.* (2006) also reported the existence of this species in Gümüşhane. *O.bufonia* (Pers.) Boud was found by Allı *et al.* (2008) at Denizli province in Western Anatolia.

The latest contribution is the present study at Kızılcahamam Soğuksu National Park near Ankara at Central Anatolia region (Fig. 1 and Table 1).



**Figure 1.** Distribution map of *Otidea* species in Turkey

Species	Locality	Habitat	Authors
<i>Otidea alutacea</i>	Artvin-Şavşat	Conifer forest	Demirel <i>et al.</i>
	Güntüştane	Conifer forest	Uzun <i>et al.</i>
<i>O. bufonia</i>	Denizli, Buldan, Çatak	On mossy place	Allı <i>et al.</i>
<i>O. leporina</i>	Manisa-Gördes	Pine forest	Gücin & Öner
	Zonguldak	Mixed forest	Abatay,
<i>O. cochleata</i> ( <i>Otidea umbrina</i> )	Manisa-Gördes	Pine forest	Gücin & Öner
<i>O. cochleata</i>	West Anatolia	Conifer forest	Gücin <i>et al.</i>
<i>O. concinna</i>	Trabzon-Maçka	Birch forest	Sesli
	Giresun-Bulancak	On mosses	Sesli
	Tokat	Mixed forest	Türkekul & Sesli
	Karabük	Mixed forest	Yağız <i>et al.</i>
<i>Otidea onotica</i> (Pers.) Fuckel	Ankara-Kızılcahamam Soğuksu National Park	Fir forest	Present data

## Material and Methods

The materials were collected from Kızılcahamam Soğuksu National Park (Fig. 1). The habitat and morphological features of the samples were recorded in the field. The identification of fungus was done by light microscopy. Reagents such as I (as KI), 5 %

KOH and cotton blue were used. Light microphotographs of ascospores were produced. Species identification was performed as described by Cetto (1991), Hansen and Knudsen (2000).

The material is deposited at the Herbarium of Ankara University (ANK), Faculty of Science, Department of Biology, Ankara.

## Results

Regnum: Fungi

Divisio: Ascomycota Caval.-Sm.

Subdivisio: Pezizomycotina O.E. Erikss. & Winka

Classis: *Pezizomycetes* O.E. Erikss. & Winka

Subclassis: *Pezizomycetidae* Locq.

Ordo: Pezizales J. Schröt.

Famillia: *Pyronemataceae* Corda

Species: *Otidea onotica* (Pers.) Fuckel *Jb. nassau. Ver. Naturk.* 23–24: 330 (1870)

Syn. *Peziza onotica* Pers., *Pseudotis abietina* (Pers.) Boud, *Scodellina onotica* (Pers.) Gray

Fruiting body is 3–5.5 cm wide (Fig 2), 4-9 cm high, irregular ear shaped, attached to the substrate with a short whitish stalk. Hymenium is orange to light carrot coloured, ochraceous – pinkish, outer surface is the same and it is slightly scurfy. Flesh is thin and white. Spores are hyaline, broadly elliptical (Fig 3), smooth, containing two oil drops, 12–13 x 5-6  $\mu$ . Ascus is cylindrical, 240–250 x 9–10  $\mu$ , not stained blue by iodine.

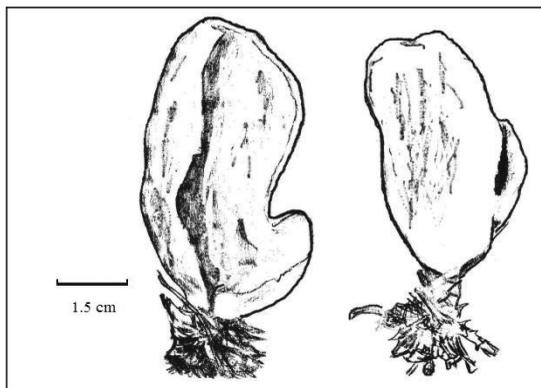
Material examined were collected from Ankara-Kızılcahamam Soğuksu National Park (Ankara), İncegeliş Ridge–Harmandoruk Hill, on soil, in *Abies nordmanniana* subsp. *bornmuelleriana* forest, 1640 m, N 40° 27' -E 32° 35', 07 September 2002, Akata 435.

## Discussion

According to relevant studies, there are five *Otidea* species in Turkey. With this study, the number of reported *Otidea* species will be six in Turkey. Considering that this figure is the result of studies performed in a 25 years period, it can be concluded that *Otidea* species are not so common in Turkey (Table 1). *O.cochleata* was recorded twice, and other species were collected only once since 1982 (Table 1).

They may be overlooked by the scientists during the field trips, because of their shorter life and their rare occurrence in the field. The resemblance of *O.leporina* and *O.onotica* among all identified species in Turkey is notable. Although there are some macroscopical differences, their microscopic features are almost the same *O.onotica* has an orange or ochraceous – pinkish coloured fruiting body, while *O.leporina* has dark yellow to cinnamon-brown. *O.onotica* is also bigger (4–9 cm high) than *O.leporina* (2–5 cm).

As a result, with this study we contributed to the Turkish macromycota.



**Fig 2.** Macroscopic drawing of *Otidea onotica* (Scale bar = 1.5 cm).



**Fig 3.** Ascus and Ascospores of *Otidea onotica* (Scale bar= 20 μ).

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