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A new gasteromycete genus record for Turkey

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Abstract: *Nidularia* Fr., known as bird's nest fungi (Nidulariaceae), a new interesting gasteromycete growing in pine forests, was recorded for the first time in Turkey at the genus level. The new genus is described and illustrated, and its taxonomic position within the family is discussed.

Key words: *Gasteromycetes*, new genus record, *Nidularia*, Turkey

Türkiye'den yeni bir gasteromiset cinsi kaydı

Özet: Kuş yuvası mantarları olarak bilinen, çam ormanında yetişen ve ilginç bir gasteromiset olan *Nidularia* Fr. cinsi, cins düzeyinde Türkiye'den ilk defa kaydedilmektedir. Yeni cinsin tanımı şekillerle desteklenerek verilmekte ve familya içindeki durumu tartışılmaktadır.

Anahtar sözcükler: *Gasteromycetes*, yeni cins kaydı, *Nidularia*, Türkiye

Introduction

Bird's nest fungi are easily identified organisms within the macrofungi because of their unique morphology. Their fruiting bodies are shaped like tiny bird's nests. To date, only 5 species of Nidulariaceae (4 *Cyathus* and 1 *Crucibulum*) have been recorded in Turkey (Solak et al., 2007). The material for the present study was collected in 2004 during routine field trips in Muğla. After an investigation in the laboratory and fungarium, *Nidularia deformis* (Willd.) Fr. was identified. The identification of the taxa was made using current literature (Brodie, 1975; Miller &

Miller, 1988; Ellis & Ellis, 1990; Pegler et al., 1995; Calonge, 1998). In the light of the literature on Turkish macrofungi (Solak et al., 2007), *Nidularia* is a new genus record for the Turkish mycoflora. The identified specimens are kept at the fungarium of Muğla University.

Description of taxon

Nidularia deformis (Willd.) Fr. (Figures 1-3)

= *Cyathus deformis* Willd.

= *Nidularia farcta* (Roth.) Fr.

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Figures 1-3. *Nidularia deformis*. 1. Basidiocarps on pine twigs; 2. Basidiospores; 3. Spiny hypha of the peridium.

Fruiting body globose to subglobose, sessile, 6-10 mm across and almost the same height, completely enclosed by a relatively thick-walled, single-layered peridium when young, irregularly broken when old, hirsute and light brown, with lens-shaped peridioles embedded in a gelatinous material, without a funiculus or epiphragm. Basidiospores 6-10 × 4-7 µm, ovoid, hyaline, smooth, and thick-walled. Basidia 35-45 × 6-8 µm, clavate, 4-spored. Peridial hyphae spiny and branched.

It grows on dead pine twigs, on dead hardwood and conifer wood, and on sawdust (Breitenbach & Kränzlin, 1986; Ellis & Ellis, 1990).

Muğla, Yaraş, Picnic area, 28.11.2004, *H.Baş* 261.

Nidularia is widespread throughout Europe (Eckblad, 1971). Palmer (1960) reported it from North America. Characteristic of this species is its

occurrence on pine twigs and the absence of an epiphragm and funicular cords. It is closely related to *Crucibulum*, due to the presence of spiny hyphae, and differs by the absence of funicular cords.

Key to Turkish genera of the *Nidulariaceae*

- 1. Peridium with a spiny hypha.....2
- 1. Peridium without a spiny hypha.....*Cyathus*
 - 2. Peridioles with funicular cords...*Crucibulum*
 - 2. Peridioles without funicular cords...*Nidularia*

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References

Breitenbach J & Kränzlin F (1986). Fungi of Switzerland Volume 2 Nongilled Fungi. Verlag Mykologia: Switzerland.

Brodie HJ (1975). The Bird's Nest Fungi. University of Toronto Press: Toronto.

Calonge FD (1998). Gasteromycetes I. Lycoperdales, Nidulariales, Phallales, Sclerodermatales, Tulostomatales, Flora Mycologica Iberica Vol. 3. Cramer Madrid.

Eckblad FE (1971). Gasteromycetes of Finnmark (Northern-most Norway). Astarte 4: 7-21.

Ellis MB & Ellis JP (1990). Fungi without Gills (Hymenomycetes and Gasteromycetes). Chapman and Hill: London.

Miller OK, Miller HH (1988). Gasteromycetes Morphological and Development Features. Mad River Press; Eureka.

Palmer JT (1960). Zur Ökologie und Systematik von *Nidularia farcta* (Roth ex Pers) Fr. Druhý Sjezd Evropských Mykologu. Praha. Československo 19-21.

Pegler DN, Læssøe T, Spooner BM (1995). British Puffballs Earthstars and Stinkhorns. Whitstable Litho: Kent.

Solak MH, Işıloğlu M, Kalmış E, Allı H (2007). Macrofungi of Turkey Checklist, Üniversiteler offset: İzmir.