

## A New Myxomycetes Record for the Turkish Mycoflora

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Received: 08.06.1999

Accepted: 05.05.2000

**Abstract :** The myxomycetes taxon *Arcyria minuta* Buchet is a new record for the Turkish Mycoflora.

**Key Words :** Myxomycetes, Turkish Mycoflora

### Türkiye Mikoflorası İçin Yeni Bir Miksomiset Kaydı

**Özet :** Miksomiset taksonu *Arcyria minuta* Buchet Türkiye Mikoflorası için yeni kayıttır.

**Anahtar Sözcükler :** Miksomiset, Türkiye Mikoflorası

### Introduction

In 1995, during routine field trips to Bartın – İnkum, a number of specimens were collected. After laboratory studies, these specimens were identified as *Arcyria minuta* Buchet. On referring to the literature on Turkish Myxomycetes (1-3), this taxon was found to be a new record for the Turkish mycoflora. The identification of this taxon was carried out using the literature on Myxomycetes (4-6). The specimens were collected and identified using the methods of Martin and Alexopoulos (5). The specimens cited are deposited in the Herbarium of Uludağ University (Bursa).

#### Systematic Position of Taxon

Kingdom: *Myceteae*

Division: *Gymnomycota*

Classis: *Myxomycetes*

Subclass: *Myxogasteromycetidae*

Order: *Trichiales*

Family: *Trichiaceae*

#### Description of Taxon

*Arcyria minuta* Buchet in Pat., Mem. Acad. Malgache 6:42, 1927.

Sporangia dense, erect, cylindrical, bright rose to salmon pink, 0.9-1.1 mm long. Hypotallus thin, rosy to brownish red, shining, extending under the whole group but inconspicuous. Stalk very short, up to 0.15 mm, transparent, furrowed, filled with spore-like cells which vary in size up to  $\pm 15 \mu$  in diameter. Peridial cup shallow, nearly flat and rather small, pleated, translucent, with irregular papillae on the inside which are sometimes connected by low ridges at the base, but which are mostly separate. Capillitium firmly attached, forming a network with few free ends, not very elastic, the threads pale, 2-2.5  $\mu$  in width, ornamented by uniformly distributed spines. Spores colourless in transmitted light, pale rose in mass, (7.5-) 8-10  $\mu$  in diameter (Figures 1-3).

**Locality :** Bartın-İnkum, on fallen twigs, shady sloping area, 15.08.1995, ERGÜL 157<sup>1</sup>, Approx. 60 m.

**Distribution :** England, Maromandia, Madagascar (5, 6).

### Result and Discussion

*A. minuta* can be distinguished from other similar-looking species of *Arcyria* as follows: *A. insignis* Kalchbr. & Cooke has smaller spores and the capillitial threads are ornamented with transverse bands and spines arranged in



Figure 1. Stereomicroscopic appearance of the sporangia of *Arcyria minuta* Buchet.

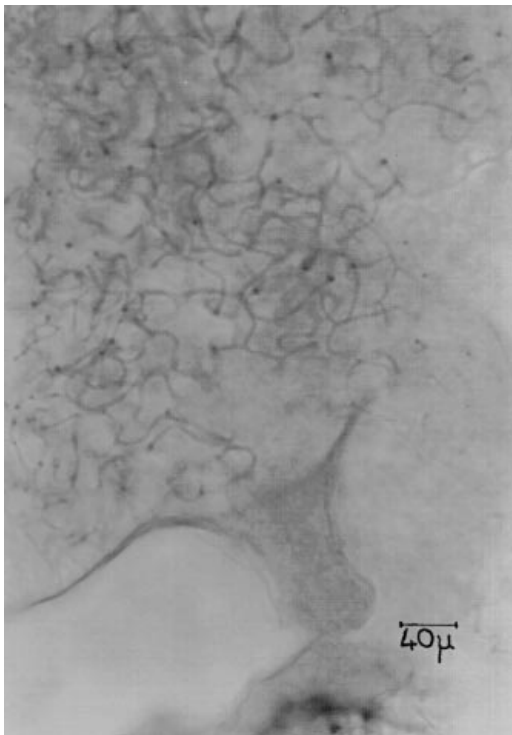


Figure 2. Total microscopic appearance of *Arcyria minuta* Buchet.

a loose spiral. The capillitium of *A. incarnata* (Pers.) Pers. is not firmly attached to the calyculus. *A. cinerea* (Bull.) Pers. is never bright rose to salmon pink in colour. *A.*

*corymbosa* Farr & Martin stands in clusters of 2-20 on fused (but individual) stalks; the capillitial ornamentation is blunt papillae or cogs and sometimes weak spirals, and the spores are marked with scattered or loosely grouped prominent warts and faint lines (4-6).

Neubert & Nannenga-Bremekamp (7) revised *A. minuta* and stated that *A. guilielmae* Nann. – Brem. is a synonym of *A. minuta*. The name *A. guilielmae* was created to replace the name *A. carnea* G.Lister (8). The information on the distribution of *A. minuta* in the present paper is given according to the species concept of Neubert & Nannenga-Bremekamp (7).

The spore diameter of *A. minuta* given in the literature varies: Nuebert et al. (9) reported 6-8 (-10) μ; Martin & Alexopoulos (5), 8-10 μ; and Nannenga-Bremekamp (4), (6-) 8-10 (-12) μ. The spores of this specimen were found to be (7.5-) 8-10 μ in diameter. The size of the spore-like cells in the stalk of this specimen is somewhat smaller than that reported by Nannenga-Bremekamp (4), which was 16-30 μ in diameter. The specimen examined is somewhat smaller, owing to the total size. According to Nannenga-Bremekamp (4), the total size was 1.0-2.8 mm, while according to Martin & Alexopoulos (5) it was 1.0 mm or less.

The *Arcyria* genus was known to be represented by 7 taxa at species level in Turkey (1-3). With this new record of *Arcyria minuta* Buchet, this number is now 8.

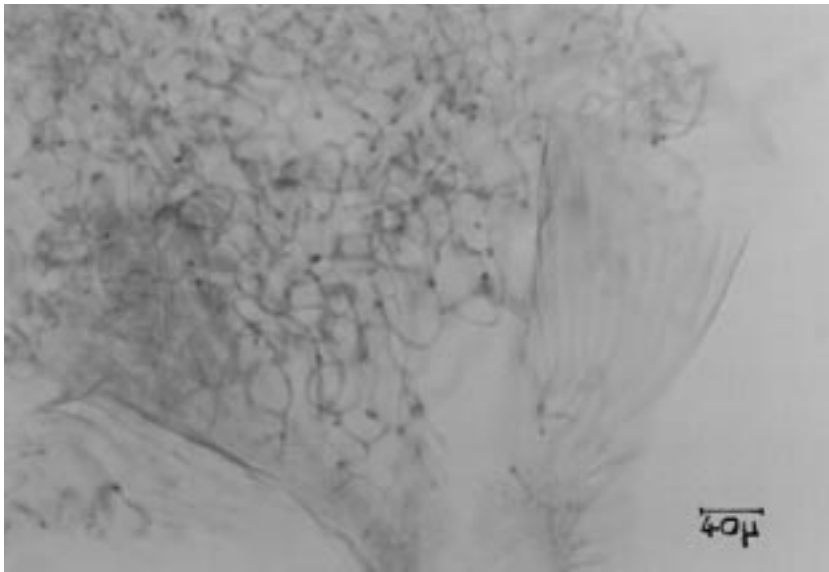


Figure 3. A view of the peridial cup and capillitial threads. Notice the plicate structure on the cup.

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