

## Two New *Arrhenia* Fr. Records for the Macrofungi of Turkey

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Received: 21.03.2008

Accepted: 17.07.2008

**Abstract:** *Arrhenia rickenii* (Hora) Watling and *Arrhenia spathulata* (Fr.) Redhead (Tricholomataceae) were recorded for the first time from Turkey.

**Key Words:** *Arrhenia*, Tricholomataceae, Kahramanmaraş, Urfa, Turkey

### Türkiye Makrofungusları İçin İki Yeni *Arrhenia* Fr. Kaydı

**Özet:** *Arrhenia rickenii* (Hora) Watling ve *Arrhenia spathulata* (Fr.) Redhead (Tricholomataceae) Türkiye'den ilk defa kaydedilmiştir.

**Anahtar Sözcükler:** *Arrhenia*, Tricholomataceae, Kahramanmaraş, Urfa, Türkiye

### Introduction

During routine field studies some *Arrhenia* Fr. samples were collected and identified. Referring to the existing records (Sesli & Denchev, 2005; Solak et al., 2007) *Arrhenia rickenii* (Hora) Watling and *Arrhenia spathulata* (Fr.) Redhead (Tricholomataceae) were identified as new records for the macromycota of Turkey.

### Materials and Methods

Macrofungi samples were collected in Kahramanmaraş and Urfa provinces between 2005 and 2007. Digital colour photographs were taken and ecological features were noted. They were brought into the fungarium and necessary macroscopic and microscopic investigations were carried out. They were then identified according to the relevant literature (Breitenbach & Kränzlin, 1991; Barrasa, 2003) and stored at Adıyaman University, Education Faculty, Adıyaman, Turkey.

### Results

#### Tricholomataceae

#### *Arrhenia rickenii* (Hora) Watling

**Syn:** *Leptoglossum rickenii* (Singer ex Hora) Singer and *Omphalina rickenii* Singer ex Hora.

Cap 7-18 mm, convex when young, slightly to deeply umbilicate when mature. Surface smooth, hygrophanous, translucent-striate, and grey brown. Flesh thin and membranous, hymenophore lamellate, lamellae decurrent, concolorous with the cap, intervenose and forked. Stipe 6-20 × 1-1.5 mm, cylindrical, usually centric, smooth, concolorous with the cap. Sometimes bent basidiopores 6-9.5 × 3.5-5.5 µm, elliptic, smooth, and hyaline. Spore print white (Figure 1).

**Distribution:** Kahramanmaraş, Kapıkaya village, 37°47'58 N, 36°47'02 E, 667 m, 19.11.2006, K.4150; Büyük Sır village, 37°30'29 N, 36°36'30 E, 462 m, 24.11.2007, K.5048; Andırın, Kumarlı village, 37°25'23

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Figure 1. *Arrhenia rickenii* (a) basidiocarps and (b) basidiospores.

N, 36°15'20 E, 162 m, on moss covered ground, 05.11.2005, K.2959; Urfa, Bozova, Sam village, 37°28'05 N, 38°19'09 E, 537 m, 16.12.2007, K.5179.

***Arrhenia spathulata* (Fr.) Redhead**

Syn: *Agaricus muscigenus* Bull., *Arrhenia muscigena* (Bull.) Honrubia & Folgado, *Cantharellus muscigenus* (Bull.) Fr., *C. spathulatus* Fr., *Corniola muscigena* (Bull.) Gray, *Cyphella cochlearis* Bres., *C. muscicola* var. *inaequilatera* (Schumach.) Fr., *Dictyolus muscigenus* (Bull.) Qué., *Leptoglossum muscigenum* (Bull.) P. Karst., *L. spathulatum* (Fr.) Velen., *Leptotus muscigenus* (Bull.) Maire, *Merulius muscigenus* (Bull.) J.F. Gmel., *M. spathulatus* (Fr.) Kuntze, and *Peziza inaequilatera* Schumach.

Cap 20-22 × 2-20 mm, spathulate to somewhat flabellate. Surface glabrous or fibrillose to tomentose, usually concentrically or transversely zonate, grey to grey-brown when moist, pale brown when dry. Flesh membranous. Hymenophore usually concolorous with the pileus, smooth, venose to intervenose or somewhat lamellate. Stipe 2-4 × 1-3 mm, lateral, concolorous with the cap.

Basidiospores 6.5-9.5 × 4.5-5.5 µm, ellipsoid, smooth, and hyaline. Spore print white. (Figure 2).

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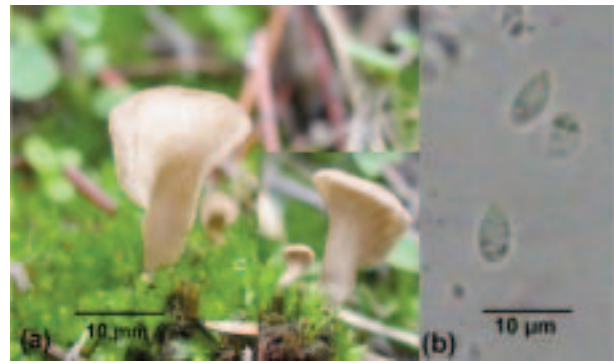


Figure 2. *Arrhenia spathulata* (a) basidiocarps and (b) basidiospores.

Distribution: Kahramanmaraş, Bulanık village, 37°35'18 N, 36°41'46 E, 993 m, on moss, 11.11.2005, K.4007; Yenidemi village, 37°38'16 N, 36°36'02 E, 490 m, 12.11.2006, K.4049; Büyük Sır village, 37°30'29 N, 36°36'30 E, 462 m, 24.11.2007, K.5047; Türkoğlu, Büyük İmalı village, 37°20'33 N, 36°45'42 E, 663 m, 24.11.2007, K.4995; Urfa, Bozova, Dutluca village, 37°28'00 N, 38°20'38 E, 659 m, 16.12.2007, K.5186.

**Discussion**

*Arrhenia* Fr. is a genus in the family Tricholomataceae and is represented by about 50 species worldwide. To date, only 2 species, *Arrhenia retiruga* (Bull.) Redhead (Pilát, 1932) and *Arrhenia lobata* (Pers.) Kühner & Lamoure ex Redhead (Türkekul, 2003), have been recorded from Turkey. Since their basidiocarps are small and not easy to distinguish from their habitat, they may be overlooked. With the addition of *Arrhenia rickenii* and *Arrhenia spathulata*, the number of Turkish *Arrhenia* records has increased to 4.

**Acknowledgements**

The authors would like to thank TÜBİTAK (104T285) for its financial support.

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