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

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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).

References

Barrasa JM (2003). The non-omphalinoid species of *Arrhenia* in the Iberian Peninsula, *Mycologia* 95: 700-713.
 Breitenbach J & Kränzlin F (1991). *Fungi of Switzerland*. Luzern: Verlag Mykologia.
 Pilát AA (1933). Additamenta ad floram Asiae Minoris Hymenomycetum Pars secunda: Agaricineae. *Bull Trimest Soc Myc France* 49: 283-302.

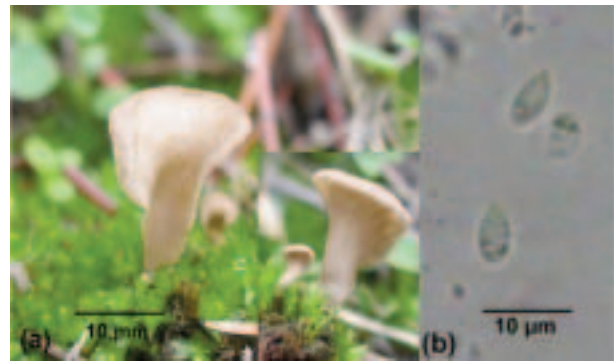


Figure 2. *Arrhenia spathulata* (a) basidiocarps and (b) basidiospores.

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.

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Sesli E & Denchev CM (2005). Checklist of the myxomycetes and macromycetes of Turkey. *Mycologia Balcanica* 2: 119-160.
 Solak MH, Işıloğlu M, Kalmış E & Allı H (2007). *Macrofungi of Turkey Checklist*. İzmir: Üniversiteliler Ofset.
 Türkekul İ (2003). *Arrhenia lobata* (Pers.: Fr.) Kühn. & Lamoure ex Redhead A new record for Turkey. *Bio-Science Research Bulletin* 19: 169-170.