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Research Note

A New Record for the Myxomycetes Flora of Turkey: *Comatricha pulchella* (C.Bab.) Rost. var. *pulchella*

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Abstract: *Comatricha pulchella* (C.Bab.) Rost. var. *pulchella* is recorded for the first time from Turkey.

Key Words: Myxomycetes, *Comatricha*, Turkey

Türkiye Miksomiset Florası için Yeni Bir Kayıt: *Comatricha pulchella* (C.Bab.) Rost. var. *pulchella*

Özet: *Comatricha pulchella* (C.Bab.) Rost. var. *pulchella* Türkiye'den ilk defa kaydedilmektedir.

Anahtar Sözcükler: Myxomycetes, *Comatricha*, Türkiye

Introduction

The samples were collected from the edge of the Lake Abant (Bolu) in September, 1995. Samples were identified as *Comatricha pulchella* (C.Bab.) Rost. var. *pulchella* using the diagnostic literature (Martin & Alexopoulos, 1969; Farr, 1976; Nannenga-Bremekamp, 1991). This taxon is a new record for the Myxomycetes Flora of Turkey (Harkonen & Uotila, 1983; Harkonen, 1988; Lado, 1994; Ergül & Dülger, 2000). The samples are kept in the Herbarium of Uludağ University (Bursa).

Description of Species

Comatricha pulchella (C.Bab.) Rost. var. *pulchella*, Mon. App. 27. 1876 ; Syn: *Stemonitis pulchella* C.Bab., Proc. Linn. Soc. 1:32, 1839.

Sporangia gregarious, stipitate, ovate to cylindric, pale brown, 0.5-1.2 mm tall. Stalk black, shorter than the sporangium, 0.2-0.4 mm. Hypothallus usually discoid and small, rarely continuous under a group. Columella black, straight, tapering, becoming tortuous and coiled towards the apex. Capillitium dense, arising from the entire columella, dark brown, primary branches darker and stouter, successive branches paler and slender, freely anastomosing branches and with few free ends. Spores brown in mass, paler in transmitted light, minutely punctate, 6.5-8.5 (-10) µm in diameter (Figures 1-2).

Locality: Bolu – the edge of Lake Abant, Ergül 158-3, Fallen twigs and logs, 19.09.1995, Altitude Approx. 1600 m.

Known World Distribution: India, Ceylon, Japan, Europe, North America, Nigeria (Farr, 1976; Thind, 1977)

Result and Discussion

Comatricha pulchella can be distinguished from other similar-looking species of *Comatricha* as follows: This species often forms extensive fructification on small twigs; the reddish tint of the small, ovoid to cylindric sporangia, and the pale brown spores are its distinguishing marks (Farr, 1976). *Comatricha* tenerrima (Curtis) G.Lister is morphologically close to *Comatricha pulchella*, from which it is distinguished by

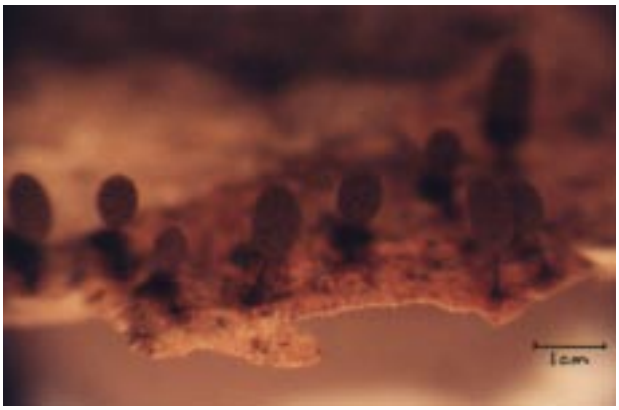

Figure 1. Stereomicroscopic image of the sporangia of *Comatricha pulchella* (C.Bab.) Rost. var. *pulchella*

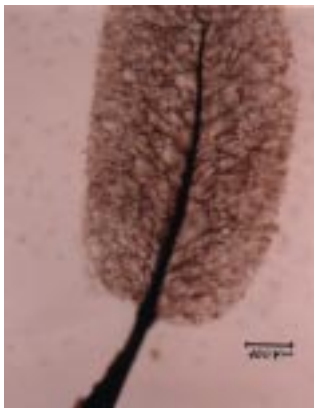

Figure 2. A view of capillitial threads and spores of *Comatricha pulchella* (C.Bab.) Rost. var. *pulchella*

the pink colour, longer stipes, and smaller, more fusiform sporangia (Nannenga-Bremekamp, 1991).

Nannenga-Bremekamp (1991) recognized two varieties: *C. pulchella* var. fusca and *C. pulchella* var. *pulchella*. *Comatricha pulchella* var. fusca can be distinguished from var. *pulchella* by the usually somewhat longer sprorangia, which are always dark brown (much darker than those of *C. pulchella* var. *pulchella*) and usually closer together; by the relatively short stalks; by the dark purple-brown capillitium, which often exhibits an interrupted surface net; and by the pale grey-brown spores in transmitted light. In addition, Lister (1966) described a variety as *gracilis*; but this has been transferred to the genus *Stemonitopsis* because of its stalk structure, cylindrical sporangia and almost complete surface net.

The spore diameter of *Comatricha pulchella* var. *pulchella* given in the literature varies: Nananenga-Bremekamp (1991), 6.5-8.0 µm; Farr (1976), 6-8 µm; Martin & Alexopoulos (1969), 6.5-8.0 µm; Lakhanpal & Mukerji (1981), 7-8(-9) µm; Thind (1977), 7-9(-9.8) µm. The spores of our specimen were 6.5-8.5(-10) µm in diam. According to Nannenga-Bremekamp (1991), the total size is 0.7-1.5 mm, whereas Lakhanpal & Mukerji (1981) reported it to be 1.5-3.5 mm. The total size of our specimen was 0.5-1.2 mm tall (Table 1).

This record brings the species count for the genus *Comatricha* in Turkey to seven (Ergül & Dülger, 2000).

Table 1. Values of *Comatricha pulchella* var. *pulchella* from various studies.

	Total colour	Total size (mm)	Spore size (µm)	Spore colour By transmitted light
Nannenga-Bremekamp (1991)	Pale lilac-brown or cinnamon	0.7-1.5	6.5-8.0	Rosy-brown
Farr (1976)	Pale brown or ferruginous	0.7-1.5(-3.0)	6-8	Pale lilaceous brown
Martin & Alexopoulos (1969)	Pale brown or ferruginous	0.7-1.5(-3.0)	6.5-8.0	Pale liliac-brown
Lakhanpal & Mukerji (1981)	Bright ferruginous	1.5-3.5	7-8(-9)	Paler
Thind (1977)	Dark brown	0.5-1.3	7-9(-9.8)	Violaceous brown
Present specimen	Pale brown	0.5-1.2	6.5-8.5(-10)	Paler

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