

Occurrence of the araneogenous fungus *Gibellula pulchra* in Turkey

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Abstract. The genus *Gibellula* is reported for the first time from Turkey. *Gibellula pulchra* on a spider is a new addition to the Turkish mycobiota. This fungus was found in a subtropical forest in canyons.

Key words: fungi on spiders, *Gibellula pulchra*, new record, Turkish mycobiota

Introduction

Turkey, given its high diversity of vascular plants as well as insects and other arthropods, certainly has many species of fungi waiting to be discovered.

The aim of our field work along the Black Sea coast in August 1999 was the investigation of microfungi with an emphasis on entomogenous species. Our attention was particularly attracted to a fungus on leaves of *Buxus sempervirens* L. Strangely, there was no leaf spot or destruction of the leaves and the fungus was not connected with a leaf tissue. The material was taken back and studied in the laboratory where it was found that the fungal colony was covering the body of a small spider. The spider was covered by a whitish brown curly mycelium. The parasite was identified as *Gibellula pulchra* (Sacc.) Cavara. The species and genus are reported here as new to Turkey.

Materials and Methods

The morphological characters of the Turkish specimen of *Gibellula pulchra* were examined by standard methods using an Olympus research microscope and available literature (Cavara 1894; Speare 1912; Petch 1932; Mains 1950; Morris 1963; Samson & Evans 1973, 1992; Kobayasi & Shimizu 1982; Evans & Samson 1987). The specimen has been depos-

ited in the Herbarium of Gazi University, Kırşehir Sciences and Arts Faculty, Turkey.

Results and Discussion

The study clearly demonstrated that the fungus is a species of *Gibellula*, viz. *G. pulchra*.

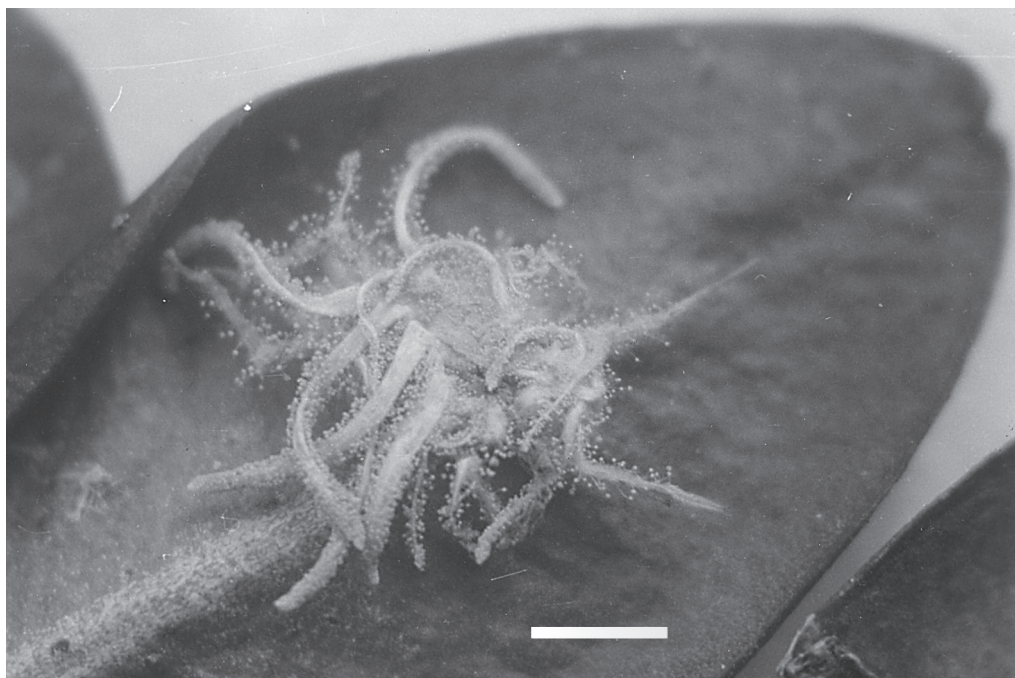
Gibellula pulchra (Sacc.) Cavara, Att. Instit. Bot. Univ. Pavia, Ser 2, 3: 347, 1894. (Fig. 1)

Corethrospis pulchra Sacc., Michelia 1: 83, 1877. – *Gibellula australis* Speg., Ann. Soc. Cient. Arg. 13: 24, 1882. – *G. suffulta* Speare, Phytopathology 2: 137, 1912. – *G. arachnophila* Johnston, Bul. Porto Rico Insular Exp. Sta. 10: 24, 1915 not *G. arachnophila* (Ditm.) Vuill. 1911. – *G. arachnophila* f. *macropus* Vuill. in Maublanc, Bul. Soc. Mycol. France 36: 41, 1920. – *G. haygarthii* Bijl, Trans. Roy. Soc. S. Africa 10: 149, 1922. – *G. araneorum* Syd., Englers Bot. Jahrb. 62: 321, 1922.

Synnemata cylindrical, angustate to the apice, whitish brown, pinkish when dried, 1.5–3 mm long, 100–200 µm thick below, 75–100 µm thick above, composed of multi-septate, loosely bound, longitudinal, parallel, thin hyphae. Conidiophores arising from slightly brownish, asperulate hyphae, loosely attached to the surface of synnemata, 155–170 µm long, (6–) 7.5–10 µm thick, the lower cells brownish, asperulate, the terminal cell or cells hyaline, smooth, 2.5–

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Fig. 1. A mummified body of a spider with a fruiting stalk. Bar = 2 mm



3 μm m thick below, apex enlarged into globose, obovoid or broadly-clavate vesicle, 7.5-10 μm m wide. Phialides cylindrical with a short neck, 6.2-7.5 \times 5 μm m, borne on metulae. Metulae narrowly clavate, 7.5-8 \times 1.5-2.5 μm m. Phialides and metulae on conidiophores forming spherical heads, 40-43 μm m diam. **Conidia** fusiform to fusiform-ellipsoid, smooth-walled, 3-5 \times 1.5-2.5 μm m, produced in succession from the phialides, occurring singly or in short chains.

On an unknown species of spider on leaves of *Buxus sempervirens* L. (Buxaceae). **TURKEY:** Rize Province, 3 km from Rize to Ayder, alt. 1750 m, 31 Jul 1999, F. Selçuk (Herb. Gazi University, Kırşehir, FS 0444).

Species of the hyphomycetous genus *Gibellula* are highly specialized and apparently obligate parasites on spiders. In Turkey *G. pulchra* was found in subtropical forests in canyons. We were unable to find the teleomorph of this fungus, *Torrubiella arachnophila* (Johnst.) Mains var. *pulchra* Mains.

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