

A NEW *PUCCINIA* ON ENDEMIC *PHRYNA*

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Abstract

The rust fungus *Puccinia phrynae* sp. nov. is described and illustrated from endemic *Phryna ortegioides* collected in East Anatolia, Turkey.

Introduction

During studies on the parasitic fungi of herbaceous plants in Elazığ Province of Turkey, a species of *Puccinia* was observed on *Phryna ortegioides* (Fisch. & Mey.) Pax & Hoffm., which differs from all known species of this genus recorded on members of the family Caryophyllaceae. Its identity was ascertained with the help of Henderson (1957, 1959, 1964), Azbukina (1974, 1984), Ulijanishchev (1978) and Ulijanishchev *et al.*, (1985). Hence we consider it to be a new species. Its holotype has been deposited in the Herbarium of Gazi University, Kırşehir Sciences and Arts Faculty (KRFEF), Kırşehir, Turkey.

Puccinia phrynae E. Hüseyin & S. Kirbağ sp. nov. (Fig. 1)

Etymology: The specific epithet is based on the genus name of the host plant *Phryna*. *Spermogonia*, *aecia* et *uredosori* ignota. *Teliosori* plerumque hypophylla, rarius caulicola, dispersa, oblonga, 0.5-2.3 mm longa, glabra, pulvinata, compacta, non pulverulentula. *Teliosporae* bicellulae, ellipticae, late-fusoidae, (37.5-)42-50(-57.5) x (18-)20-22.5(-25) μm , apice rotundata, rarius protracta, basi rotundata vel angustata, ad septum constrictis vel subconstrictis; membrana brunneae, flavo-brunneae, 1-1.5 μm cr., apice ad 6-8 μm incrassata, levis; porus germinationis cellulae superioris in apicem dispositus vel in lateris remotius, cellulae inferioris in medio vel ad basin remotius; stipite hyalino, 5-7.5 μm lato, ad 90 μm longo, firmo. *Mesosporae* praesentia.

In foliis et caulibus *Phrynae ortegioides* (Fisch. & Mey.) Pax & Hoffm. (Caryophyllaceae), Turcei, regio Elazigensis, Sivrice distr., alt. 1300 m s.m., 20 Julio 2001, S. Kirbağ. Holotypus (EH 1156) in Herbario Kırşehir Facultatis Rerum Naturalium et Litterarium Universitatis Gazi (Kırşehir, Turcei) conservatur.

Spermogonia, *aecia* and *uredinia* unknown. *Telia* mostly hypophyllous, sometimes on stems, scattered, oblong, 0.5-2.3 mm long, dark-brown, pulvinate, exposed, compact, non pulverulent. *Teliospores* ellipsoid, broadly fusiform, (37.5-)42-50(-57.5) x (18-)20-22.5(-25) μm , two-celled, constricted or slightly constricted at the septum, rounded at the apex, rarely attenuate, at the base rounded or slightly angustate; spore wall brown, yellowish-brown, smooth, 1-1.5 μm thick, apically thickened up to 6-8 μm thick, germ pore of upper cell apical or moved away, but of lower cell median, or moved towards base; pedicel colorless, 5-7.5 μm wide, upto 90 μm long, hard. *Mesospores* present.

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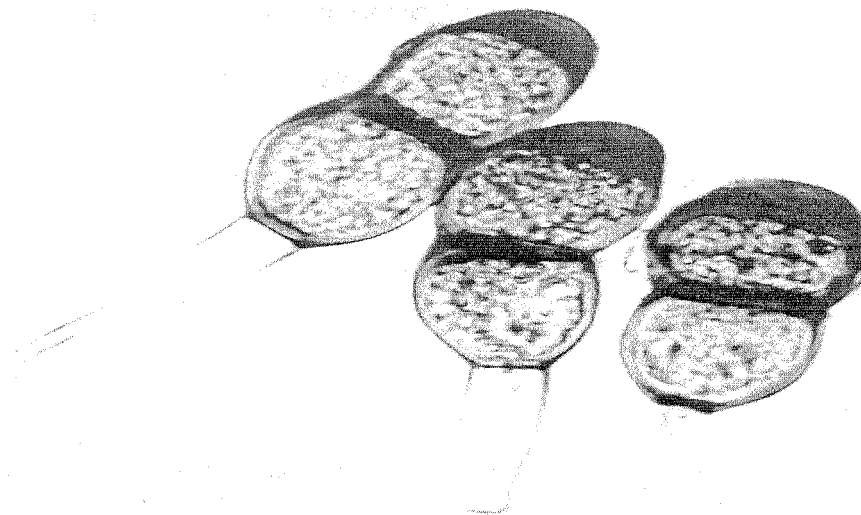


Fig. 1. Teliospores *Puccinia phrynae* X600.

Distribution: East Anatolia, Turkey.

Specimen examined: On leaves and stems of *Phryna ortegioides* (Fisch. & Mey.) Pax & Hoffm. (Caryophyllaceae). Turkey, Province Elazığ, Sivrice district, alt. ca 1300 m, 20 July 2001, leg. S. Kırbağ. (Holotype – Gazi University, Kırşehir Sciences and Arts Faculty, EH 1156. Kırşehir, Turkey).

The *Phryna* is monotype and endemic genus. No rust fungus has been described on this genus before. Of the species of *Puccinia* earlier reported on Caryophyllaceae species (Azbukina, 1974, 1984; Ulijanishchev, 1978) this species is similar to *P. arenariae* (Schum.) Wint. Our new species clearly differs from *P. arenariae* in host plant, position of germ pore, form and color of spores.

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