

## **ZAGHOUANIA PHILLYREAE PAT., (UREDINALES) A NEW REPORT FROM TURKEY**

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### **Abstract**

In this study *Zaghouania phillyreae* Pat., a member of the *Pucciniaceae* family (Uredinales, Basidiomycota) is reported for the first time from Turkey.

### **Introduction**

Studies on rust fungi in Turkey were started by Bremer *et al.*, (1947, 1952), followed by Henderson (1957, 1959, 1961, 1964), Karel (1958), Tamer *et al.*, (1998) and other investigators (Kırbağ *et al.*, 2001; Hüseyin & Kırbağ, 2003; Hüseyin & Selçuk, 2004). As a result of these studies about 295 species of rust fungi were recorded from Turkey.

### **Materials and Methods**

*Phillyreae latifolia* diseased plant material was collected from different localities of Antalya province in May 2000. The host specimens were prepared according to established herbarium techniques. The fungus were examined using the usual methods followed in mycology. Microscopical examinations were performed using Nikon research microscope. The specimens were identified using related literature (Wilson & Henderson, 1966; Cummins & Hiratsuka, 2003) and materials concerning parasitic fungi in Turkey (Bremer *et al.*, 1952; Göbelez, 1963; Öner *et al.*, 1974). The host specimen were identified using Flora of Turkey and East Aegean Islands (Davis, 1965-1985).

The collection is deposited at Gazi University, Kırşehir, Sciences and Arts Faculty Herbarium in Kırşehir Province (KRFEF) of Turkey.

### **Results**

In the light of the literature on Turkish rust fungi (Tamer *et al.*, 1998), the genus *Zaghouania* and its species *Z. phillyreae* Pat., are reported for the first time from Turkey. Description of this species based on Turkish samples is given below.

### **Uredinales**

#### **Pucciniaceae**

*Zaghouania phillyreae* Pat. Fig. 1 A-D.

*Bull. Soc. Myc. Fr.*, 17: 187 (1901)

*Uredo phillyreae* Cooke, *Fungi Brit. Exs.* 1, no 591 (1871)

*Spermogonia* epiphyllous. *Aecia* amphigenous, chiefly hypophyllous, on petioles, leaves and shoots, forming thickened swollen, circular areas, sometimes deforming the host, deeply immersed, small, long-closed and covered by epidermis, orange; *aeciospores* globoid to ellipsoid with orange contents, 20-25(-29) x 14.5-18.5(-20) µm, catenulate; wall reticulate, hyaline, 2-3 µm thick. *Uredinia* epiphyllous, rounded or irregular, 350-



Fig. 1A. Leaves, shoots and petioles of *Phillyrea latifolia* L., infected with *Zaghouania phillyreae* Pat.

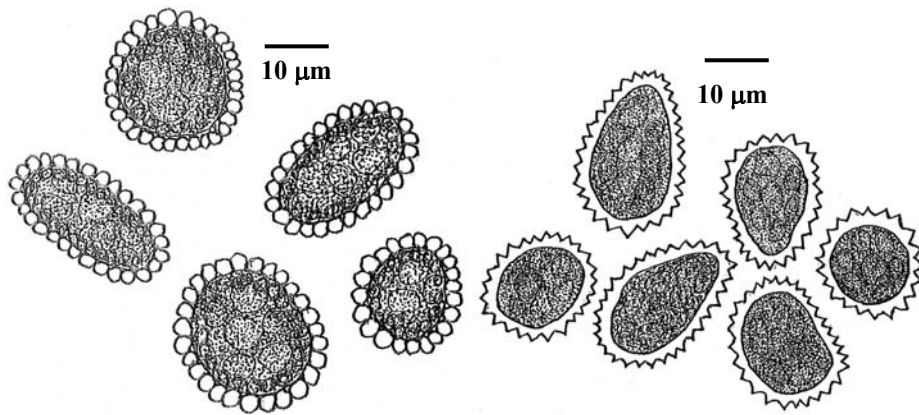


Fig. 1B. Aeciospores

Fig. 1C. Urediniospores

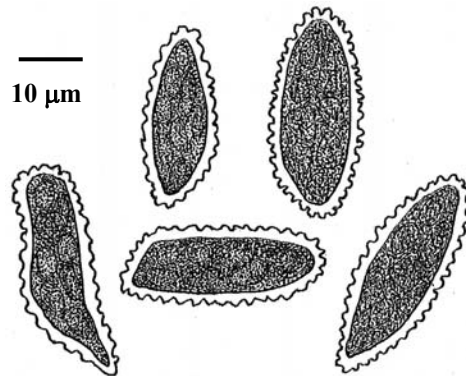


Fig. 1D. Teliospores

550 µm diam., on small yellow spots, first covered by epidermis, pulverulent, orange-yellow; *urediniospores* globose to ovoid, 16 – 23.5 x 15 – 17 (-18) µm, with orange contents; wall hyaline, 2 – 2.5 µm thick, echinulate. *Telia* epiphyllous on yellow spots, scattered or loosely grouped, minute; *teliospores* aseplate ellipsoid or oblong, rounded at both ends, 29 - 37 x 10 – 14.5 µm, wall hyaline, 2 - 3 µm thick, verrucose. Eu – auto – species.

**Specimens examined:** On living leaves, shoots and petioles of *Phillyrea latifolia* L. (*Oleaceae*). 3 km along the Gebiz - Antalya road stream bank, 37° 1' 20" N – 30° 9' 40" E, 100 m a. s. l., May 29, 2000. EH.0486.

### Discussion

*Zaghouania phillyreae* is reported in the Mediterranean area on wild species of *Phillyrea*. *Z. phillyreae* is known also from England on cultivated plants (Wilson & Henderson, 1966) and from Ukraine (Tikhonenko & Isikov, 1993) and Bulgaria on wild *Phillyrea latifolia* (Denchev, 1995).

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