



Parietaria semispeluncaria (Urticaceae), a new species from eastern Turkey

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Abstract

Parietaria semispeluncaria Yıldırım, a new species endemic to eastern Anatolia, Turkey is described and illustrated. *P. semispeluncaria* Yıldırım is most similar to *P. rechingeri* Chrtek from which it can be distinguished by stem, leaf, inflorescence and flower morphology. *P. semispeluncaria* is a perennial obligate chasmophyte that colonizes calcareous marlstone cliffs. It is known from a single locality in the Levent Canyon, Malatya Province. A species conservation assessment classifies *P. semispeluncaria* as ‘Vulnerable’ (VU) D1 + 2 on account of its restricted distribution.

Key words: chasmophyte, taxonomy, Levent Canyon, Malatya, marlstone

Introduction

Parietaria Linnaeus (1753:1052) (Urticaceae) comprises ca 20 species distributed throughout temperate and subtropical areas of the world (Boufford 1992, Friis 1993). *Parietaria* is represented by four species in Turkey none of which are endemic (Townsend 1982). This new species will bring the total to five. The genus is characterized by hermaphrodite flowers, leaves with entire margins and a pronounced modification of the flower after anthesis. It is very variable with respect to stem, leaf, bract and post anthesis flower morphology, characters deemed unreliable for species delimitation by Weddell (1856: 504–505). This author, however, feels that these characters are useful for species delimitation where the species have a restricted distribution and these characters are mostly constant .

Malatya Province in Eastern Anatolia is one of the most species-rich centres of endemism in Turkey (Yıldız *et al.* 2003) and in recent years several new species have been described from this area (Yıldırım *et al.* 2010, Mutlu & Karakuş 2012, Tan *et al.* 2012, Koç & Aksoy 2013, Yıldırım & Erol 2013, Yıldırım & Şenol 2014a, Yıldırım & Şenol 2014b, Yıldırım & Şenol 2014c, Mutlu & Karakuş 2015). The area is characterized by marlstone, a soft, finely fissured sedimentary rock (Schnurrenberger *et al.* 2003, Yıldırım & Şenol 2014c) which hosts many chasmophytes and the Levent Canyon is also a centre of diversity and endemism for several chasmophyte species. For example, *Reseda malatyana* Yıldırım & Şenol (2014: 1014), *Alkanna malatyana* Şenol & Yıldırım (2014: 126), *Campanula alisan-kilincii* Yıldırım & Şenol (2014: 23), *Galium scopulorum* Schön.-Tem. (1979: 252), and *Pimpinella paucidentata* V.A.Matthews (1972: 354).

In June 2010 the author collected an unusual and distinct specimen of *Parietaria* on marlstone-calcareous rocky cliffs in the Levent Canyon which he believes to be of a species new to science.

Materials and Methods

Specimens of the putative new species were compared with herbarium specimens at ANK, EGE, E, GAZI, HUB and K. In addition the relevant literature (Friis 1993, Boufford 1992, Townsend 1982) was reviewed. The gross morphology of *Parietaria semispeluncaria* and *P. rechingeri* Chrtek (1974: 12) was examined using a stereo-binocular microscope. A total of 50 specimens of *P. semispeluncaria* specimens were studied (mostly not whole plants). Approximately 50 pollen grains and 30 mature seeds were observed using a light microscope and scanning electron microscopy (SEM). For SEM observations, seed and pollen grains were placed on aluminium stubs, using double-sided adhesive tape, sputter coated with gold using a Emiteck K550 and then examined using an FEI Quanta 250 FEG SEM. Images of living