



## *Crocus yaseminiae* (Iridaceae) a new species from South Anatolia, Turkey

OSMAN EROL<sup>1</sup>\*, LEVENT CAN<sup>2</sup> & ORHAN KÜÇÜKER<sup>1</sup>

<sup>1</sup>Botany Department, Faculty of Science, Istanbul University, 34116, Istanbul, Turkey; e-mail: erol@istanbul.edu.tr

<sup>2</sup>Institute of Biology and Environmental Sciences, Carl von Ossietzky-University Oldenburg, D-26111, Oldenburg, Germany.

\*author for correspondence

### Abstract

*Crocus yaseminiae* is described as a new species from Alanya province in South Anatolia. A short literature history of the closely related taxon *Crocus isauricus* Siehe ex Bowles (= *Crocus biflorus* subsp. *isauricus* (Siehe ex Bowles) Mathew) is given together with a lectotypification of its name, and a discussion of the type specimen and locus classicus. Diagnostic characters were discussed of the taxa belonging to the “*isauricus* group” (*C. biflorus* subsp. *isauricus*, *C. roseoviolaceus*, *C. mersinensis*, *C. taseliensis*, and *C. karamanensis*). Fenugreek scented flowers are reported for the first time for the genus.

**Key words:** Asparagales, *Crocus biflorus* subsp. *isauricus*, Fenugreek odour, Lectotypification

### Introduction

*Crocus biflorus* Miller (1768: 4) subsp. *isauricus* (Siehe ex Bowles 1924: 126) Mathew (1982: 82) varies throughout its distribution and is endemic to Turkey, whereupon the epithet indicates a mountainous area that is in between the gulf of Antalya and the gulf of Mersin in South Turkey, which was known as “Isauria” in classical times. Although Bowles (1924) described the taxon and introduced it to the literature, the plant was first collected by Walter Siehe from the Cilician Taurus Mountains in 1907. Siehe also sent specimens to many herbaria. *Crocus isauricus* was reduced to a subspecific rank under *Crocus biflorus* by Mathew (1982) and was distinguished by the characters of coriaceous corm tunics, 4–7 leaves with ribs on lower surface, honey or sweet scented flowers with markedly stripes on the exterior of outer perigone segments, and yellow anthers with greyish connectives. However, after Mathew (1982, 1984), four similar taxa were recently described: *C. roseoviolaceus* Kerndorff & Pasche (2011: 2), *C. mersinensis* Kerndorff & Pasche (2012: 3), *C. taseliensis* Kerndorff & Pasche (2012: 6), and *C. karamanensis* Kerndorff & Pasche (2013a: 146). We choose to define this group as the “*Crocus isauricus* group”.

The fact that the closest taxa to *Crocus biflorus* subsp. *isauricus* are in species rank instead of other *Crocus biflorus* subspecies is due to the “subspecies problem” in this genus. Mathew (1982) ranked many taxa as subspecies, because of superficial morphological similarities. However, the subspecies concept for this genus has been often used as a “dumping ground” (Kerndorff *et al.* 2013b), and as a result, *Crocus biflorus* had 23 subspecies. Other studies (Erol *et al.* 2014, Ruksans 2014, Schneider 2014, Kerndorff *et al.* 2013a, Kerndorff *et al.* 2013b, Harpke *et al.* 2013), ranked new taxa as species, because of crossing barriers which is probably caused by different chromosome numbers (Schneider *et al.* 2012). Also the molecular phylogenetic studies carried out in recent years (Petersen *et al.* 2008, Seberg & Petersen 2009, Harpke *et al.* 2013, Erol *et al.* 2014, Harpke *et al.* 2014a–b) showed that the systematics of this genus is far more complex than it is laid out in the last *Crocus* revision (Mathew 1982). Consequently, all the subspecies of *Crocus biflorus* were recently treated at species rank by Schneider *et al.* (2012), Harpke *et al.* (2013) and Kerndorff *et al.* (2013b). Accordingly we treat *C. isauricus* at species rank.

The “*Crocus isauricus* group” is distributed from Pamphilia to the borders of Cilicia, all have coriaceous corm tunics, 2 to 8 leaves, yellow to blackish anthers, and orange-red coloured styles. However, *Crocus roseoviolaceus* differs from this group for its poorly developed corm rings, leaves that have no ribs underneath, blackish connectives, and red trumped-like styles. Kerndorff & Pasche (2011) suggest a relationship to two Cypriot taxa for its overall appearance. Also Harpke *et al.* (2013) show close relationship to the Cypriot taxa according to molecular data. On the other hand, *C. mersinensis* differs by its broadly arrow shaped and yellow coloured anthers, whereas *C. taseliensis* differs by its scimitar shaped and 79% blackish–21% yellow anthers.

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