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A New Record for Turkey: *Malcolmia excooides* (DC.) Spreng. (*Brassicaceae*)

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Abstract: *Malcolmia excooides* (DC.) Spreng. (*Brassicaceae*) is recorded for the first time (C9 Siirt) for the flora of Turkey. The diagnostic characters of *M. excooides* are given and its ecology and conservation status are discussed.

Key Words: *Brassicaceae*, *Malcolmia*, new record, Turkey

Türkiye İçin Yeni Bir Kayıt: *Malcolmia excooides* (DC.) Spreng. (*Brassicaceae*)

Özet: *Malcolmia excooides* (DC.) Spreng. (*Brassicaceae*) türü Türkiye'den (C9 Siirt) ilk defa kaydedilmiştir. *M. excooides*' in tanıtıcı özellikleri, yetişme ortamı ve koruma durumu belirtilmektedir.

Anahtar Sözcükler: *Brassicaceae*, *Malcolmia*, yeni kayıt, Türkiye

Introduction

During floristic investigations, the authors collected some interesting *Brassicaceae* specimens from around the River Dicle (Siirt). Among them was a specimen that could not be identified using the account in the *Flora of Turkey* (Cullen, 1965; Davis et al., 1988; Güner et al., 2000). Eventually, using the generic account in the *Flora of Iraq* (Townsend, 1980), *Flora of Palaestina* (Zohary, 1966) and *Nouvelle Flore du Liban et de la Surie* (Mouterde, 1970), the specimens were identified as *Malcolmia excooides* (DC.) Spreng. It was a new record for the flora of Turkey. The record is not surprising since the species also grows in near by Syria and Iraq.

Malcolmia excooides (DC.) Spreng., Syst. Veg. Ed. 16:2:899 (1825); Fl. Pal. ed. 2, 1: 75 (1932); Blakelock in Kew Bull. 3: 389 (1948); Fl. Lowland Iraq: 317 (1964); Rawi in Dep. Agr. Iraq Tech. Bull. 14: 34 (1964); Fl. Palaest. 1:266 (1966); Nouv. Fl. Syr. 2:168 (1970); Hadac & Chrtek in Act. Univ. Carol. Biol. 4, 1971: 257 (1973). (Figure 1).

Syn.: *Sisymbrium excooides* DC., System. Veg. 2: 463 (1973).

Conringia nana Boiss. et Ky., Diagn. Ser. 2, 5: 25 (1856).

Malcolmia conringioides Boiss., Fl. Orient. 1: 230 (1867); Guest in Dep. Agr. Iraq Bull. 27: 60 (1933); Zoh., ibid. 31: 68 (1950).

Type: In Libano loco dicto Zaale, Labillardière.

The following description of the species was based on the specimens collected from around the River Dicle (Siirt).

Annual herb, 3-8 cm, simple or erect or ascending branched from about the base; stems \pm tuberculate -scabrid hairy throughout. Leaves oblanceolate to oblong-lingulate, the lower 15-30 x 2-5 mm, glabrous or usually papillate-hairy at least along the lower surface of the midrib, remotely bluntly to rather sharply dentate or subentire, narrowed below but sessile with slightly expanded sheathing bases; branch leaves similar but

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Figure 1. *Malcolmia exacoides* (DC.) Spreng. a. habit; b. sepals; c. petals; d. stamens and ovarium.

scarcely narrowed below, with distinct blunt or sometimes acuminate auricles. Raceme mostly with 2-5 large flowers, the lower increasingly remote; pedicels 2-3 mm, patent-erect, ± scabrid, incrassate in fruit. Sepals 8-10 mm, glabrous or sparingly papillate-hairy. Petal primrose to rather bright yellow, 13-17 mm, the lamina cuneate-oblong to cuneate-obovate, entire above, narrowed below to the much longer claw. Inner filament free. Siliqua narrowly linear, 35-57 x 1-1.5 mm, patent-ascending, glabrous or tuberculate; seeds brown, 1.25 mm, minutely ovoid. Flowering: March-April, fruiting: May. Steppe, fields, 400-500 m.

Turkey, south-east Anatolia, C9 Siirt, from Siirt to Şirnak, 30 km, around River Dicle, steppe and fields, 37°44'071"N, 041°49'260"E, 450 m, 11.03.2006, F.ÖZGÖKÇE & M.ÜNAL 9138 (in flower); 14.04.2006, F.ÖZGÖKÇE & M.ÜNAL 9149 (in fruit).

The herbarium specimens are deposited at VANF.

Discussion

M. exacoides, the distribution of which was not recorded previously in Turkey, is distributed in Palestine, Syria/Lebanon and Iraq (Zohary et al., 1980; Greuter et al., 1986) in parts adjacent to south/south-eastern Turkey. For that reason its distribution in the south-east of Turkey is not surprising.

The number of species of *Malcolmia* R.Br. in Turkey (Cullen, 1965; Yıldırım, 2001) reaches 11 with the addition of *M. exacoides*. The closest species to *M. exacoides* among Turkish *Malcolmia* is *M. crenulata* (DC.) Boiss. It differs from *M. crenulata* as indicated below:

Characters	<i>M. exacoides</i>	<i>M. crenulata</i>
Flower (colour)	bright yellow	bright violet
Petal (length)	13-17 mm	16-23 mm
Sepal (length)	8-10 mm	8-13 mm
Leaves	basal petiolate cauline amplexicaule	all ± sessile, semiamplexicaule

M. exacoides grows in a very limited area (in Turkey), where it is under high grazing pressure. The recommended IUCN Red Category is Vulnerable (VU (B1a)) (IUCN, 2001). In its locality, the following taxa exist abundantly: *Ranunculus asiaticus* L., *Anemone coronaria* L., *Fumaria asepala* Boiss., *Erophila verna* (L.) Chevall. subsp. *verna*, *Thlaspi perfoliatum* L., *Clypeola jonthlaspi* L., *Sinapis arvensis* L., *Cicer arietinum* L., *Bellevalia longipes* Post, and *Iris persica* L.

References

- Cullen J (1965). In: Davis PH (ed). *Flora of Turkey and the East Aegean Islands*. 1: 460-462. Edinburgh: Edinburgh University Press.
- Davis PH, Mill RR & Tan K (eds) (1988). *Flora of Turkey and the East Aegean Islands*. Vol. 10 (supplement 1): pp. 29-58, Edinburgh: Edinburgh University Press.
- Güner A, Özhatay N, Ekim T & Başer KHC (eds) (2000). *Flora of Turkey and the East Aegean Islands*. Vol. 10 (supplement 2): pp. 29-41. Edinburgh: Edinburgh University Press.
- Greuter W, Burdet HM & Long G (1986). *Med-Checklist*, Vol. 3: 137 Genève: Conservatoire et Jardin Botaniques.
- IUCN (2001). *Red List Categories: Version 3: 1*. Prepared by the IUCN Species Survival Commission. IUCN, Gland, Switzerland, & Cambridge, UK.
- Mouterde SJ (1970). *Nouvelle Flore du Liban et de la Surie*. Tome Second (Atlas): LX. Der el-Mashreq. Beirut.
- Townsend CC (1980). *Malcolmia* R.Br. In: Townsend CC & Guest E (eds) *Flora of Iraq*, 4 part: 2. 1028-1029. Baghdad: Ministry of Agriculture, Republic of Iraq.
- Yıldırım Ş (2001). The Chorology of the Turkish Species of *Brassicaceae*, *Buddlejaceae* and *Buxaceae* families. *Ot Sist Bot Derg* 8: 165.
- Zohary M (1966). *Malcolmia* R.Br. In: Zohary M (ed). *Flora Palaestina*, Vol. 1 (Text): 264-266. Jerusalem: Academic Press, Israel.
- Zohary M, Heyn CC & Heller D (1980). *Conspectus Florae Orientalis*, Fascicle 1: 19, Jerusalem: Israel Academy of Science and Humanities.

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