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## *Arabis mollis* Steven (*Brassicaceae*): A New Record for Turkey

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**Abstract:** A number of specimens of *Arabis mollis* Steven have been collected from Van. The species is a new record for the flora of Turkey. A description, photograph and distribution map of the species are given and an identification key is supplied for its close relatives. The nomenclatural problems between the species and its synonym, *A. christiani* N.Busch, are discussed.

**Key Words:** *Brassicaceae*, *Arabis*, Turkey, Flora

### *Arabis mollis* Steven (*Brassicaceae*): Türkiye İçin Yeni Bir Kayıt

**Özet:** Van'dan toplanan *Arabis mollis* Steven örneği Türkiye florası için yeni bir kayıttır. Türün betimi, fotoğrafı ve dağılım haritası verilmiş, ayrıca yakın türlerinden ayırımı için teşhis anahtarı eklenmiştir. Bu tür ile sinonimi olarak verilen *A. christiani* N.Busch arasındaki adlandırma sorunları tartışılmıştır.

**Anahtar Sözcükler:** *Brassicaceae*, *Arabis*, Türkiye, Flora

### Introduction

A flowering *Arabis* L. specimen was collected from the Van region during a field trip by the authors. It was first tentatively identified as *A. graellsiformis* Hedge due to the absence of mature fruit. On the other hand, the stellate hairs of the upper leaves attracted our attention. After we collected some more specimens with mature fruits, the material with flowers and fruits was definitely identified. The specimens belong to *A. mollis* Steven of the section *Alliariopsis* N.Busch, which is a new record for the flora of Turkey according to our literature survey.

The section *Alliariopsis* is characterised by its basal leaves with long petioles and orbicular to broadly ovate lamina in the genus *Arabis*. Hence, an identification key has been prepared for all the species including *A. mollis* of the section *Alliariopsis*.

*Arabis mollis* Steven in Mem. Soc. Nat. Moscow III (1812) 270 non (Scop.) A. Kerner. (Figure 1).

Syn.: *Arabis christiani* N.Busch, in Monit Jard. Bot. Tiflis. vi. 7 (1906): N. Busch in Flora Cauc. crit. III, 4 (1909) 498.

Type: described from Dagestan (source of the Yukharibash River), (LE and Helsingfors).

Perennial herb, covered with stellate hairs; stem erect or ascending, 15-40 cm high, simple or branched. Stem leaves ovate, cordate-amplexicaule, acutely incised-dentate, 8-14 teeth per side, 3-10 x 2-4.5 cm; basal leaves long petiolate, ovate, suborbicular or broader than long, large and obtusely toothed, 6-8 teeth per side, 6-17 x 2-4.5 cm. Sepals green, inner sepals saccate, 0.5-0.6 x 0.2-0.4 cm, outer sepals smooth, 0.5-0.6 x 0.12-0.2 cm. Petals white 1-1.6 x 0.4-0.7 cm, with obovate patulous limb. Stamens 6, long filaments 4, 0.45-0.8 cm, short filaments 2, 0.35-0.5 cm, anthers 0.18-0.21 cm. Pedicels 6-10 (-13) mm in fruit. Siliquae 3-6.5 x 0.2-0.25 cm, torulose, constricted between seeds, thickened along margin, with very short style (0.5-1 mm long). Seeds rounded, up to 0.2-0.25 x 0.15-0.2 cm, very flat, reddish or black, with membranous wing 1.5-1.6 mm broad. Flowering time May-July. Damp rocks and shady places. Alt. 2350-2450 m.

Turkey/B9 Van: Başkale, Güzeldere Pass, rocky places near the stream, 38° 09' 144 N, 043° 58' 587 E, 30 v 2002, 2393 m, A.A.Dönmez 10800-B. Mutlu (in flower), 30 vi 2002, A.A.Dönmez 11101 (in fruit).



Figure 1. *Arabis mollis* a: habit, b: fruiting branch.

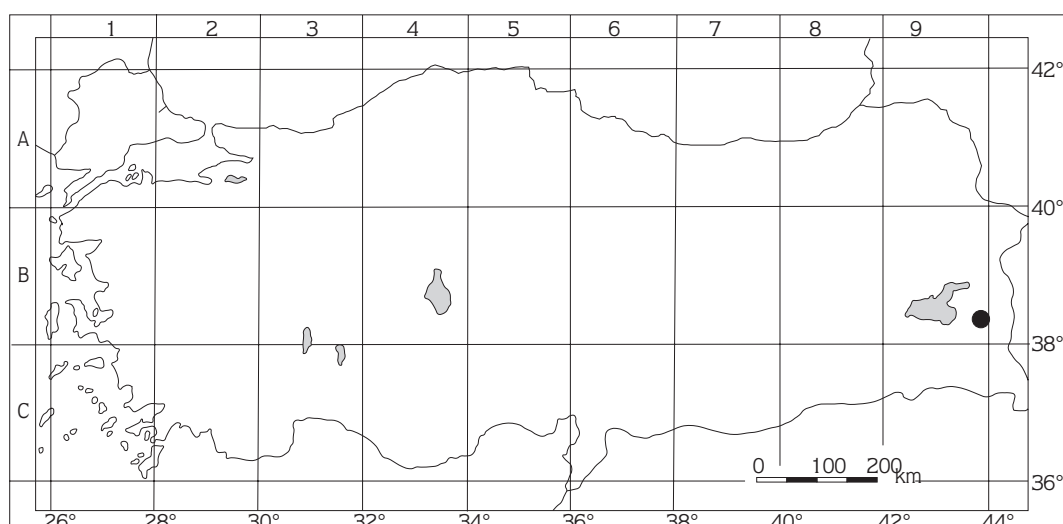


Figure 2. Distribution of *Arabis mollis* Steven (●).

## Discussion

The specimens were first identified as *A. christiani* according to Busch's revision (Busch, 1939) in which the synonyms are given as *A. mollis* and *Cardamina asarifolia* S.G.Gmel. We then identified the specimens as *Arabis mollis* using Flora Europea (Jones, 1964) in which *A. christiani* is given as the synonym of the species.

*Arabis mollis* and *A. christiani* have been given as synonyms of each other by these two authors. In fact, the descriptions of both species are the same. Unfortunately, the authors have not given the type specimens of the species, and it is difficult to find the type specimens of both names.

According to Cullen (1965), the genus *Arabis* has 17 species in Turkey. However, that number has increased to 23, including *A. mollis*, with new records (Sorger, in Davis et al., 1988; Yıldırım, 1998; Güner et al., 2001) and newly described species (Parolly & Hein, 2000; Duman, 2001; Duman & Duran, 2001).

Key to the section *Alliariopsis* in the Flora of Turkey:

- 1- Siliqua 1.3-2.8 cm long, pedicels 15 -16 mm long,  
seeds broadly elliptic **A. brachycarpa**

- 1- Siliqua 3-6.5 cm long, pedicels 0.6-10 (-13) mm long, seeds rounded or oblong

- 2- Basal leaves with rounded lobes, upper leaf surfaces glabrous or subglabrous; seeds oblong, wingless, black **A. graellsiformis**

- 2- Basal leaves with acute serration; upper leaf surface with dense stellate indumentum; seeds rounded, winged, reddish or black **A. mollis**

The *A. mollis* specimens were collected from the given locality. Although further field studies have been carried out, no other population has been found. The locality is under grazing pressure and there are only a few specimens. Due to grazing pressure and the low number of specimens we propose the "VU" category (IUCN, 2001).

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## References

- Busch N (1939). *Arabis* L. In: Komarov VL & Shishkin BK (eds). *Flora USSR* 21: 452-454. Moscow and Leningrad: Botanicheskii Institut Akademii Nauk SSSR. (Translated from the Russian by the Israel Program for Scientific Translations, Jerusalem 1977).
- Cullen J (1965). *Arabis* L. In: Davis PH (ed). *Flora of Turkey and the East Aegean Islands*, 1: 422-429. Edinburgh: Edinburgh University Press.

- Davis PH et al. (eds.), (1988). *Flora of Turkey and the East Aegean Islands*. 10: 49. Edinburgh: Edinburgh University Press.
- Duman H (2001). A New Species of *Arabis* L. (*Brassicaceae*) from South Anatolia. *Botanical Journal of the Linnean Society* 137: 87-90.
- Duman H & Duran A (2001). A New Species of *Arabis* L. (*Brassicaceae*) from South Anatolia. *Israel Journal of Plant Sciences* 49: 237-240.
- Hedge IC (1957). A new *Arabis* from Turkey. *Notes Roy. Bot. Gard. Edinb.* 22: 23-25.
- IUCN (2001). *IUCN Red List Categories: Version 3.1*. Prepared by the IUCN Species Survival Commission. IUCN, Gland, Switzerland and Cambridge, UK.
- Güner A, Özhatay N, Ekim T & Başer KHC (eds) (2000). *Flora of Turkey and the East Aegean Islands*. v: 11. Edinburgh: Edinburgh University Press.
- Jones BMG (1964). *Arabis* L. In: Tutin TG et al. (eds), *Flora Europaea* 1: 290-294, Cambridge: Cambridge University Press.
- Parolly G & Hein P (2000). *Arabis lycia* (*Cruciferae*), a new chasmophyte from Taurus Mts. Turkey, and notes on related species. *Willdenowia* 30: 293-304.
- Yıldırım Ş & Dönmez AA (1998). Türkiye Florası için iki yeni yetiştirme familya, birçok tür ve çeşitli kare kayıtları. *Ot Sistematik Botanik Dergisi* 5(1): 59-72.