A New Record for the Flora of Turkey: *Iberis saxatilis* L. 
(*Brassicaceae*)

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**Abstract:** *Iberis saxatilis* L. is reported for the first time (B1 Balîkesir) from Turkey. A description, including an illustration of the plant parts, and a distribution map are presented.

**Key Words:** Brassicaceae, *Iberis saxatilis*, new record, Kazdaû, Balîkesir

**Introduction**

Some *Iberis* L. specimens were collected during an expedition to Balîkesir province as part of the Flowering Plants of Kazdaû National Park Project (TÜBÎTAK-YDABAG-103Y104). We were not able to identify them using the Flora of Turkey (Hedge, 1965; Yıldırımlı, 2000). They were similar to *Iberis saxatilis* L. (Table 1) according to Flora DÕItalia (Anzalone et al., 1982), Flora Europaea (Da Silva & Franco, 1993), the Mountain Flora of Greece (Franzen, 1986) and Flora Hellenica (Tan, 2002). After thorough axaminations of all the specimens and the relevant literature, it was decided that this species was a new record for Turkey. The number of *Iberis* species known from Turkey is now 9.

*Iberis saxatilis* L., Cent. Pl. 2:23 (1756) (Figures 1, 2).

Perennial, procumbent, diffuse shrub with straight, flowering stems 2.5-10 cm, glabrous to puberulent below, densely retrorsely puberulent above. Leaves 3-9 x 1-1.5 mm, semi-cylindrical on not flowering shoots and below on flowering stems; flat on upper flowering stems, entire, linear, acute, mucronulate, glabrous on both surfaces, ciliate on margins when young, soon glabrous. Inflorescence 7-12 x 9-12 mm, corymbose in flower, shortly elongating in fruit. Sepals, 1.5-2.5 mm, green to purplish, glabrous, white membranous-margined. Petals 3.5-6.5 mm (inner 3.5-4.5 mm, outer 5-6.5 mm), white to purplish-white, gradually narrowed into a short claw. Fruiting pedicel to 6 mm. Silicula 5-8 x 4-6 mm, ovate, broadly winged from the base, lobes rounded.

**Type:** Origin of type material not known (LINN 825/3 photo!)

**Material Examined:** [Turkey] B1 Balîkesir: Iter trojanum, Mt. Ida in marmor, mont. Szus-Dagh, 17.7.1883, P. Sintenis (photo!). Kazdaû (Ida), Nanekir, limestone, 1500 m, 19.05.2004, T. Dîrmencî (2516al) & F. Satîl (GAZI, HUB, Yıldırımlı) ibid 05.06.2004, T. Dîrmencî (2523!l) & F. Satîl (EGE), ibid Zıûındere valley, limestone, 1600 m, 19.05.2004, T. Dîrmencî (2516b!) & F. Satîl (ANK), Susuz daû-Kûz tepe, 1500 m, 02.07.2004, T. Dîrmencî (2872b!) & F. Satîl (Hb. T. Dîrmencî). Fels mit Rutschalde, DŽp. Herault: PŽgairolles-de-BuŽges-St.-Guilllem-le-DŽsert 14 km sw PŽgairolles-de-Boûges, 450 m, 4.4.1982, Max Nydegger 30006 (GAZII); Kalkfels, Vaucluse: Carpentras-Sault-de-Vaucluse, Gorges de la Nesque, Belv. 734 m. 3.4.1980, Max Nydegger (GAZII).
Table 1. Comparison of the diagnostic characteristics of *I. saxatilis* in Kazdağ with *I. saxatilis* in other Flora.

<table>
<thead>
<tr>
<th>Characters</th>
<th>Kazdağ</th>
<th>Flora Hellenica</th>
<th>Flora Europaea</th>
<th>Flora D’Italia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant height</td>
<td>2.5-10 cm</td>
<td>2-10 cm</td>
<td>up to 15 cm</td>
<td>5-15 cm</td>
</tr>
<tr>
<td>Leaflets</td>
<td>3-9 x 1-1.5 mm</td>
<td>(2-)5-15 x 0.3-1.5 mm</td>
<td>up to 20 x 1.5 mm</td>
<td>10-15 x 1 mm</td>
</tr>
<tr>
<td></td>
<td>semi-cylindrical</td>
<td>semi-terete</td>
<td>semi-cylindrical</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>linear</td>
<td>linear</td>
<td>linear</td>
<td>linear</td>
</tr>
<tr>
<td></td>
<td>at first ciliate but soon glabrous acute, mucronulate</td>
<td>ciliate, otherwise glabrous subacute</td>
<td>at first ciliate but soon glabrous acute, mucronulate</td>
<td>-</td>
</tr>
<tr>
<td>Inflorescence</td>
<td>7-12 x 9-12 mm</td>
<td>10-22 mm</td>
<td>-</td>
<td>racemose</td>
</tr>
<tr>
<td></td>
<td>corymbose in flower</td>
<td>racemose</td>
<td>-</td>
<td>corymbose in flower</td>
</tr>
<tr>
<td></td>
<td>shortly elongating in fruit</td>
<td>elongating in fruit</td>
<td>-</td>
<td>elongating in fruit</td>
</tr>
<tr>
<td>Pedicel</td>
<td>2.4 mm</td>
<td>2.4 mm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sepals</td>
<td>1.5-2.5 mm</td>
<td>2.5-3 mm</td>
<td>-</td>
<td>2.5 mm</td>
</tr>
<tr>
<td></td>
<td>green to purplish with scarious margin</td>
<td>purplish with scarious margin</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Petals</td>
<td>inner 3.5-4.5 mm, outer 5-6.5 mm</td>
<td>inner 3-6 mm, outer 7-10 mm</td>
<td>-</td>
<td>6-7 mm</td>
</tr>
<tr>
<td></td>
<td>white to purplish-white</td>
<td>white</td>
<td>-</td>
<td>white</td>
</tr>
<tr>
<td>Style</td>
<td>0.7-1.2 mm</td>
<td>0.5-1.2 mm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Fruiting pedicel</td>
<td>6 mm</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Silicula</td>
<td>5-8 x 4-6 mm</td>
<td>4.5-7 x 4-6 mm</td>
<td>5-8(-9) x 4.5-6(-7) mm</td>
<td>7 x 6 mm</td>
</tr>
<tr>
<td></td>
<td>ovate</td>
<td>broadly ovate</td>
<td>obovate</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>broadly winged from the base</td>
<td>wing 0.1-0.3 mm broad below</td>
<td>broadly winged from the base</td>
<td>-</td>
</tr>
</tbody>
</table>

The recommended IUCN Threat Category (IUCN, 2001) is Endangered (EN). It was collected from 3 localities in Kazdağ. The Nanekırı population is in good condition, but the other 2 populations are poor, and the distribution area is less than 10 km² in Turkey. Therefore, the recommended threat category for this species is Endangered.


**Discussion**

*Iberis* is represented by 20 species in Europe (Da Silva & Franco, 1993), by 6 species in Flora Hellenica (Tan, 2002), and by 8 species in the Flora of Turkey (Hedge, 1965; Yıldırımli, 2000, 2001). According to Franzen (1986) and Tan (2002), *I. saxatilis* was collected from Kazdağ (Ida) by Sintenis in 1883. This specimen was not seen by Hedge (1965).

*I. saxatilis* is allied to *I. sempervirens* L. and *I. runemarkii* Greuter & Bardet (Syn: *Iberis arbuscula* Runemark), which are also woody at the base. It can be easily distinguished from *I. sempervirens* by its short flowering stems, 2.5-10 cm (not 15-30 cm), semi-cylindrical leaves (not oblong to oblong-spathulate), length and width of leaves, 3-9 x 1-1.5 mm (not 8-30 x 2-6 mm), outer petals to 6.5 mm (not 7-11 mm), and small fruit, 5-8 mm (not 8-10 mm). It differs from *I. runemarkii* in its semi-cylindrical leaves (not spathulate),
length and width of leaves, 3-9 x 1-1.5 mm (not 10-30 x 2-5 mm), leaf margins entire (not 1-2 small teeth on each side), fruiting pedicel up to 6 mm (not 5-9 mm), sepals 1.5-2.5 mm (not c. 6 mm), outer petals to 6.5 mm (not up to 15 mm), and small fruit, 5-8 mm (not 8-10 mm).

Key to Related Iberis L. Species

1. Flowering stems 15-30 cm, leaves 8-30 x 2-6 mm, outer petals 7-15 mm
   1. Leaves entire, sepals 2-3 mm, outer petals up to 11 mm  I. sempervirens
   2. Leaves toothed at apex, sepals c. 6 mm, outer petals up to 15 mm  I. runemarkii

1. Flowering stems 2.5-10 cm, leaves 3-9 x 1-1.5 mm, sepals 1.5-2.5 mm, outer petals up to 6.5 mm.
   I. saxatilis

I. saxatilis is widely distributed in Europe (Greece, Italy, Spain, Romania, France, Switzerland, Yugoslavia, Crimea and N. Africa). It was divided into 2 subspecies in Flora Europaea: I. saxatilis subsp. saxatilis and subsp. cinerea (Poiret) P.W.Ball & Heywood. I. saxatilis subsp.
saxatilis is apparently the Turkish plant. According to Flora Europaea, it differs from subsp. cinerea in its stem up to 15 cm (not 40 cm), glabrous to puberulent (not velutinous), leaves up to 1.5 mm wide (not 2 mm), and silicula with a shallow notch (not acute).

**Key to related subspecies of Iberis saxatilis** L.

Flowering stems up to 10 cm (Turkish plants), leaves up to 1.5 mm wide, silicula with a shallow notch

subsp. saxatilis

Flowering stems up to 40 cm, leaves up to 2 mm wide, notch of silicula acute

subsp. cinerea

Acknowledgements

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References


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