

Linum barsegjanii Gabr. & Dittr., a new species from Armenia

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ABSTRACT

GABRIELIAN, E. & M. DITTRICH (1992). *Linum barsegjanii* Gabr. & Dittr., a new species from Armenia. *Candollea* 47: 71-76. In English, English and German abstracts.

Comparative morphological and micromorphological investigations between *Linum seljukorum* Davis and its Armenian relative showed that the last one must be regarded as a different species and is described here for the first time as *Linum barsegjanii* Gabr. & Dittr. The two species belong to the section *Halolinum* Egor.

ZUSAMMENFASSUNG

GABRIELIAN, E. & M. DITTRICH (1992). *Linum barsegjanii* Gabr. & Dittr., neue Art von Armenia. *Candollea* 47: 71-76. Auf Englisch, englische und deutsche Zusammenfassungen.

Vergleichende morphologische und mikromorphologische Untersuchungen zwischen *Linum seljukorum* Davis und ihrer armenischen Verwandten haben gezeigt, daß letztere als eigene Art betrachtet werden muß; die Autoren beschreiben sie hier erstmals unter dem Namen *Linum barsegjanii* Gabr. & Dittr.; beide Arten gehören der Sektion *Halolinum* Egor. an.

Since the publication of *Linum seljukorum* Davis in 1957 this name was also used for an Armenian taxon by EGOROVA (1973) placed by herself in her new created section *Halolinum*. DAVIS (1967) also mentioned that this species occurs only in the Central Anatolian province Konya and, very far from there, in Armenia. New gatherings of Armenia (Ararat region) showed that the characters of these plants do not correspond with the description given by DAVIS in 1957. A comparison of this material with the type specimen of *L. seljukorum* Davis confirmed that the Armenian plant, also illustrated in the Flora of Armenia by Egorova, is different in so many characters that it must be described as a new species.

As mentioned above Egorova created a new section for the Armenian "*Linum seljukorum*" whilst Davis filed his taxon in the section *Dasylinum* with the remark: "A very distinctive species, perhaps deserving a separate section; its small free petals, homostyly, and sepals $\pm$ equal to the capsule are not found elsewhere in Sect. *Dasylinum*". The new species, the second of this section can be described as follows:

***Linum barsegjanii* Gabr. & Dittr., spec. nov. (sect. *Halolinum* Egor.)**

Annuum. *Caules* simplices 10-35 cm alti, straminei, prope basin leviter curvati, superne recti. *Cyma* unilaterali 5-14- flora terminati; cyma saepe ad florum singulum reducta, in parte superiore pilis simplicibus diametro eorum non longioribus obsita. *Folia* 6-10 mm longa, 1.5-2 mm lata,

oblonga ad lanceolata, carnosae, erectae, sessilibus; folia basalia glabra, margine integra, folia in dimidio superiore caulis margine glanduloso-ciliata, utrinque pilis simplicibus obsita. *Flores* (1-)5-14, homostyli; *calyx*: sepala ovata, acuminata, 4 mm longa, 2.5 mm lata, superne sparse villosiuscula pilis simplicibus 0.5 mm longis, margine glanduloso-ciliata; *petala*: rosacea, cuneata, 7.5-8 mm longa, 3.5-4 mm lata, nervis in tertia parte superiore bifurcatis; *gynoeceum* stigmatibus lineari-clavatis; *capsulae* ovatae, apice dentibus 10 erectis 0.5 mm longis; in tertia parte superiore pilis 0.2-0.3 mm longis obsitae; *semina* elliptica, 2.3-2.5 mm longa, 1.5 mm lata, pallide brunnea, latere adaxiali sine funiculo rostrato; latere adaxiali sine margine hyalino.

Type specimen: Armenia, Ararat region, near Ararat village, salt marches, 850 m, 8.8.1961, Barsegian (ERE; isotypes: E, G, K, LE).

Annuals (Fig. 1) with simple, 10-35 cm high, strawcoloured stems, slightly curved at the base, than upright, ending in a unilateral cyme (with 5-14 flowers), or often reduced to 1 flower, covered only on its upper half by simple hairs not longer than its $\varnothing$. *Leaves* oblong to lanceolate, 6-10 mm long, 1.5-2 mm broad, fleshy, upright, sitting; basal leaves glabrous, margins entire; leaves above the middle of the stem with glandular-ciliate margins and simple hairs on both surfaces. *Flower*: (1-)5-14, homostylic; *calix* (Fig. 2a-c): sepals ovate, acuminate, 4 mm long, 2.5 mm broad, sparsely villosiusculous above by simple, 0.5 mm long hairs, margins glandular-ciliate; *petals* (Fig. 2d): pinkish, cuneate, 7.5-8 mm long, 3.5-4 mm broad, nerves bifurcated in its upper third; *gynoeceum* with linear-clavate stigmas (Fig. 2a); *capsule*: ovate, with 10, upright, 0.5 mm teeth at the apex, sparsely covered only in the upper third by 0.1-0.3 mm long hairs (Fig. 2a-b); *seeds* (Fig. 3a-b) elliptic, 2.3-2.5 mm long, 1.5 mm broad, light brown, without beak-shaped funicle and hyalin margin at his adaxial side; hilum laciniate.

Distribution: Armenia, Endemic of the Ararat region.

Observations: Rarely, if the only one stem is damaged some lateral buds can develop to upright but not patent secondary shoots.

The most distinguishing characters between the new species and the endemic *Linum seljukorum* Davis are listed in Table 1 (p. 84).

Specimina visa

1. *L. barsegianii*: Armenia, Ararat region, near Ararat village, salty and marshy soils, July 1955 Barsegian (ERE, LE); ibidem, 29.7.1956, A. Barsegian & Egorova (ERE); ibidem, along the channel, 20.7.1961, Barsegian (ERE); ibidem, between Arazdajan and Ararat, salty soils, with *Juncus acutus* L., 30.7.1965, Barsegian (ERE); Ararat region, nahe Ararat, salt marsh, 15.7.1966 (ERE, G); Ararat region, vicinity of Ararat, between Ttujur and railway, marshy place with *Juncus acutus* L., 10.11.1970, Takhtajan & al. (ERE); ibidem, 850 m, 28.7.1986, Gabrielian, Tamanjan & Fajvush (ERE).

2. *L. seljukorum*: Turkey, Vilayet, Konya, Karinhani bei Konya, salzige Böden, 1100 m, 8.7.1954, Bilger 5109 (G); Turkey, Konya-Kashanan, dry mud at edge of saline marsh, 7.9.1947, Davis 14777 (E, G, K); Turkey, Tuz Gölü, near Cihanbeyli, saline soil, 10.8.1971, C. M. Rogers (G).

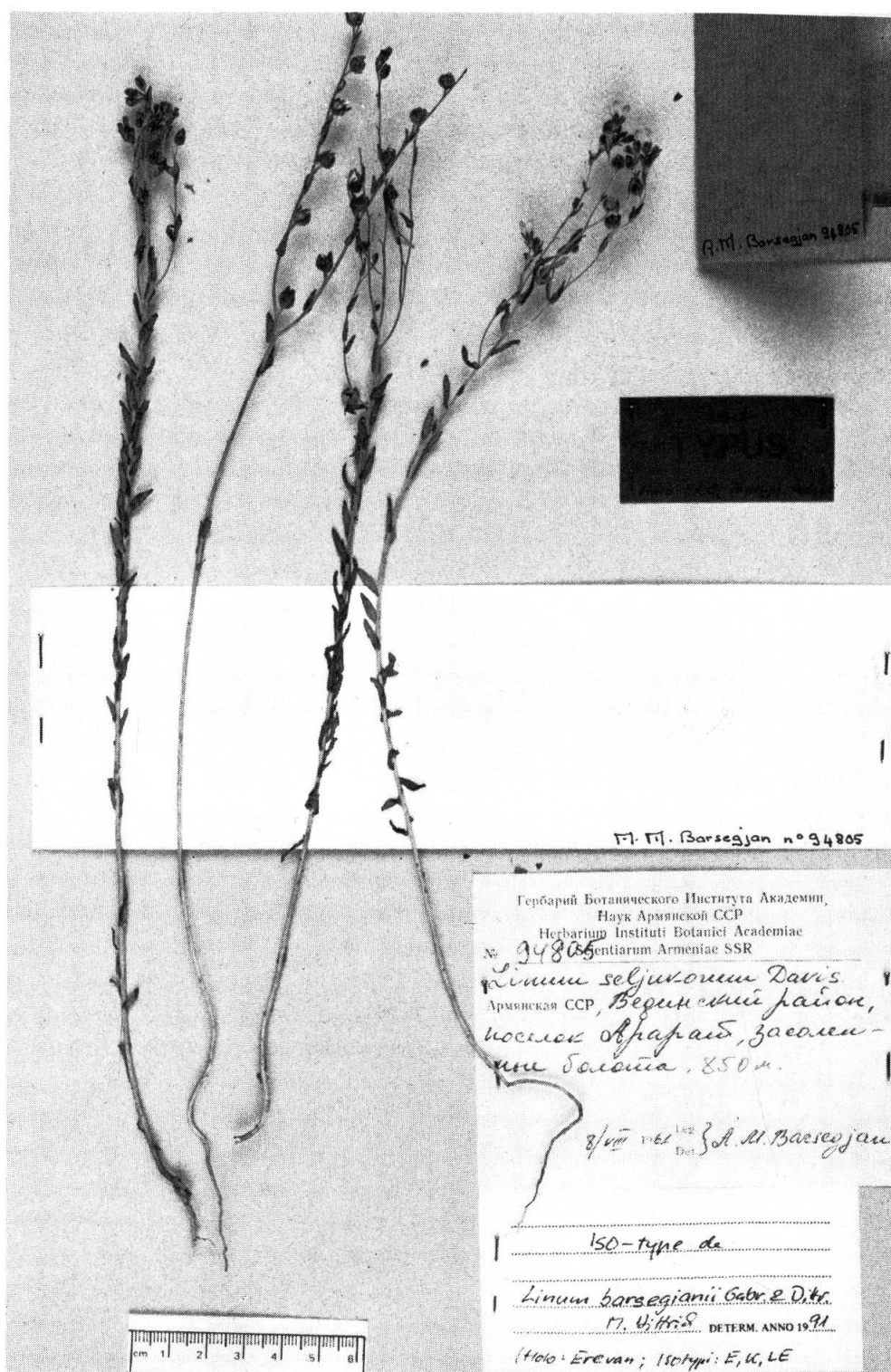


Fig. 1. — Type specimen of *Linum barseggianii* Gabr. & Ditr., leg. Barseggian, 8.8.1961.

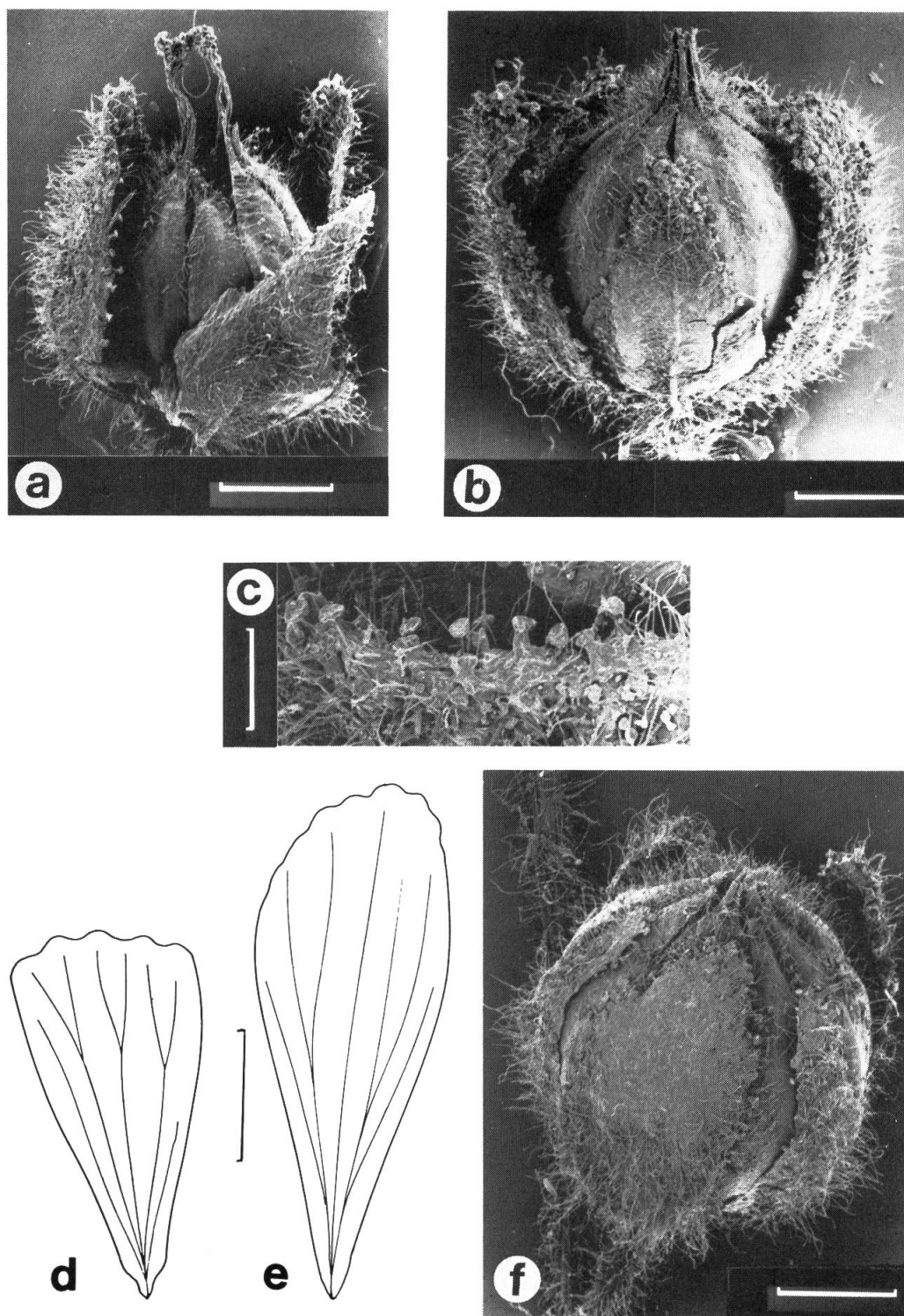


Fig. 2. — *Linum barsegjanii*.
Linum seljukorum.
 a, young capsule with its linear-clavate stigmas; b, ripe capsule; c, glandular-ciliate margin of sepals; d, petal.
 e, petal; f, ripe capsule.
 Scale in a, b, f: 1000 μ , in c: 300 μ , in d, e: 2,5 mm).

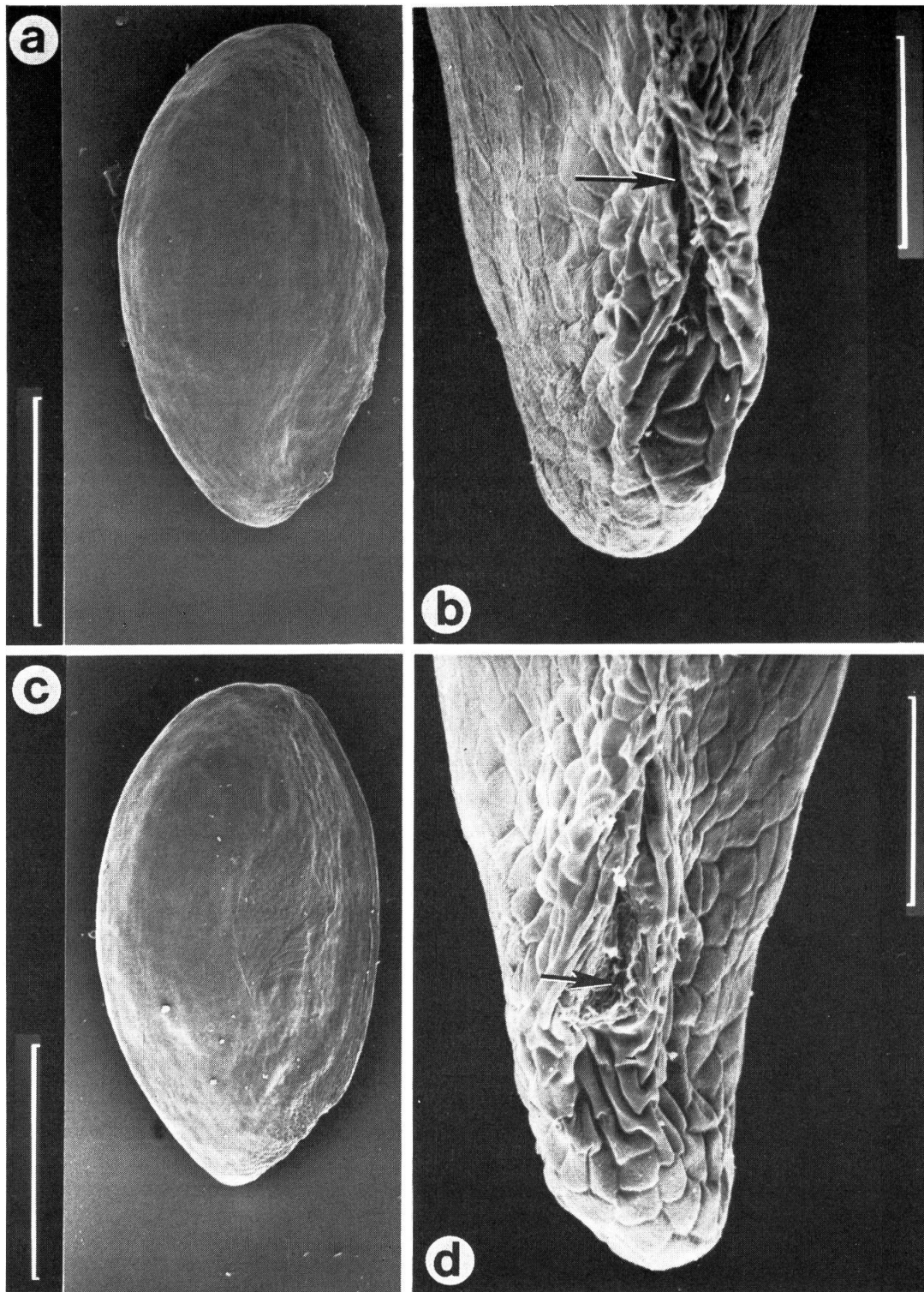


Fig. 3. — *Linum barseggjanii*.
a, lateral view of the seed; **b**, adaxial side of the seed base showing the lacinate hilum.
Linum seljukorum.
c, lateral view of the seed; **d**, adaxial side of the seed base with its triangular hilum.
 Position of the hilum is shown by an arrow; scale in **a**, **c** 1000 μ and in **b**, **d** 100 μ .

Characters	<i>L. seljukorum</i>	<i>L. barsegianii</i>
Stem		
length (cm)	6-20	10-35
ramification	4-14 patent branches	normally upright and unbranched
base	straight	slightly curved
colour	greyish	strawcoloured
hairiness	over the whole stem	only on the upper half of stem
hairs	2-3 times longer than stem $\varnothing$	not longer than the half of stem $\varnothing$
Leaves		
shape	ovate-oblong	oblong-lanceolate
size (mm)	4-10 $\times$ 1-3	6-10 $\times$ 1.5-2
orientation	spreading	$\pm$ upright
basal ones	with hairs + glands	glabrous
middle to upper	with hairs + glands	with hairs + glands
Flowers/plant		
	about 40-50 flowers	(1-)5-14 flowers
Calix	shorter or equal to capsule	longer than capsule
Sepals	ovate-obtuse, 4.5-5 $\times$ 2.5 mm	ovate-acuminate, 4 $\times$ 2.5 mm
hairiness	densely villosiusculous glandular-ciliate	sparsely-villosulous, glandular-ciliate
hairs	simple, ca. 1 mm	simple, 0.5 mm
Petals	blue	pinkish
shape	oblong-obovate	cuneate
size (mm)	8-10 $\times$ 3-4	7.5-8 $\times$ 3.5
nerves	bifurcations in lower part	bifurcations in upper third
Capsule (ripe)	globose	ovate
apex	without or with very short teeth, but densely covered with 0.5 mm long hairs	with 0.5 mm, long upright teeth, sparsely covered with 0.1-0.3 mm long hairs
Seeds	reddish-brown, with beak-shaped funiculus and hyaline adaxial margin, hilum triangular	light brown, without beak-shaped funiculus and hyaline margin, hilum laciniate

ACKNOWLEDGEMENTS

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