

A new subspecies of *Parietaria judaica* from Syria

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ABSTRACT: *Parietaria judaica* subsp. *speluncarum* is newly described from Jebel Samakah Mts., western Syria. Notes on the remarkable ecology of the new taxon and on the variability of *P. judaica* agg. are given.

KEYWORDS: *Parietaria*, taxonomy, new taxa, Syria

Introduction

In spring 1995, the second author visited Syria and studied the chasmophytic vegetation there. Populations of plants close to *Parietaria judaica* were found during field work near the village Ma'lula in the mountain ridge Jebel Samakah, about 25 km E of Antilibanon (Jibal Lubnan Ash-Sharquiiah) Mts. Plants differing strongly in their habitats and morphology were distinguished besides the typical *P. judaica* L. At each of three adjacent microlocalities, five plants were collected. Further plants were collected by J. MLÍKOVSKÝ at the locality in autumn 1995.

Variation in the *Parietaria judaica* agg.

The taxonomy of the complex of *P. judaica* L. is not yet worked up satisfactorily. In the distribution range of the complex, including southern part of Europe, large part of

Asia and North Africa, this complex splits in great number of morphotypes varying in their taxonomical values. Causes of this variation are not yet understood satisfactorily. *Parietaria judaica* L. was described from Palestina. MOUTERDE (1966) gives from Syria and Libanon only one perennial species - *P. judaica*. He divided it into "type *diffusa* MERT. et KOCH" and "type *brevipetiolata* BOISS.". The neutral word "type" illustrates general uncertainty in taxonomic treatment of this complex. The latter "type" differs in stalks more woody, shorter petioles and smaller leaves. Similar classification is given from surrounding countries by many authors, e. g. BOISSIER (1879), POST (1933) and ZOHARY (1966). From Turkey, only *P. judaica* is reported without further intraspecific division (TOWNSEND 1982). From Iraq, a perennial endemic species *P. rechingeri* CHRTEK is separated from the *P. judaica* agg. (CHRTEK 1974, TOWNSEND 1980).

The herbarium material shows, that the population under study from Ma'lula is closely related to the BOISSIER's "type *brevipetiolata*", but the plants are not identical with it and differ by a series of distinct features. We describe the plants as a new taxon, based on these findings:

- (1) At the locality, the plants differ conspicuously in their morphology and ecology both from the sympatric population of *P. judaica* s. s. and from all the other plants of this complex studied.
- (2) At the locality, the plants studied are found in large populations (thousands individuals). The plants in the field seemed to be very uniform in their morphology. Although populations of plants studied grow together with typical *P. judaica* at the locality, no intermediate plants were found.

We believe that the plants represent a separate taxon. However, with respect to large variability within the whole complex of *P. judaica* and with regard to the lack of a detailed taxonomical knowledge of the complex, we describe it at the rank of subspecies.

Parietaria judaica subsp. *speluncarum* CHRTEK et SÁDLO, subsp. nova

Descriptio: Plantae perennes, e basi lignosa abundante dense ramificatae. Caespites densi caulibus ad substratum (saxam) adpressis vel ascendentibus. Caules emortui anni praecedentis ad annum sequentem cum relictis inflorescentiarum reservati qua de causa caespites strigilliformes e caulibus vivis atque emmortuis oriuntur. Caules usque 6 cm alti, dense longeque pilosi, cum pilis glandulis sparsis intermixtis. Folia breviter petiolata, cum petiolis 1,0-1,5 mm longis, longe pilosis; lamina ambitu ovoidea seu oblongo-ovoidea (3-)4-7(-11) mm longa et (2-)3 - 4,5(-7) mm lata, in apice obtuse acuminata, in pagina inferiore pilosa et cum glandulis dispersis intermixtis, colore obscure griseo-viridi usque subnigri.

Inflorescentiae glomerulatim contractae. Flores feminei cca 4(-5) mm longi, cum corolla profunde incisa, in pagina exteriore pilosi. Flores bisexuales cum corolla cca 2 mm longa, profunde incisa, in pagina exteriore pilosi. Fructus oblonge anguste conicae-fusifformes, 2,3-2,6(-2,7) mm longi et 0,8-1,0 mm lati, nigrobrunei usque nigri, lucidi.

Typus: Syria occid., oppidum Ma'lula, saxa superpendentia et ostia speluncarum supra oppido, 20. V. 1995 leg. J. SÁDLO, in herbario Musei nationalis Pragae (PR) asservatur.

Etymologia: secundum occurrenceam nonnisi in vicinitate ostiorum speluncarum.

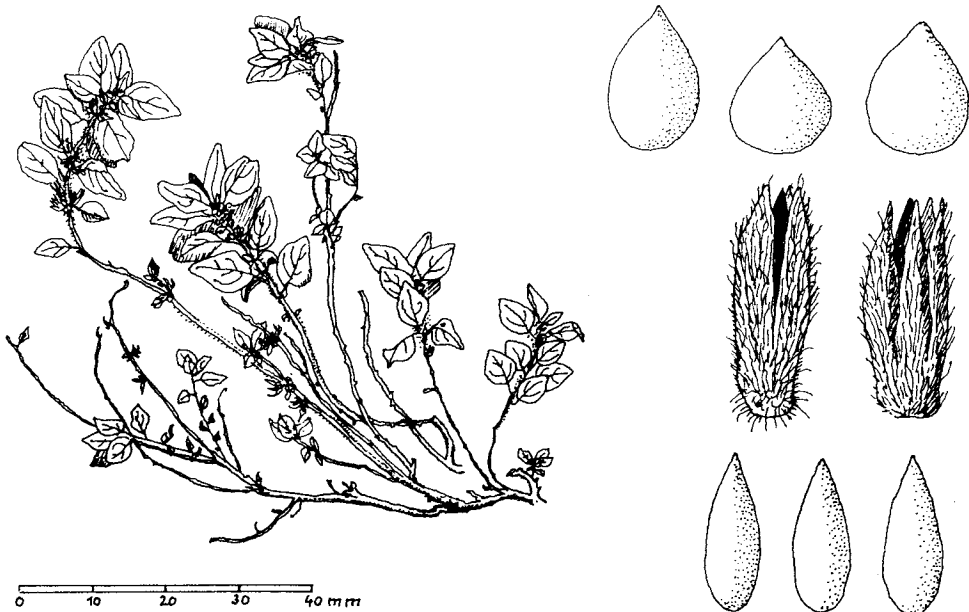


Fig. 1. *Parietaria judaica* subsp. *speluncarum* from the locality of the holotypus. Habitus of plants; fruits in *P. judaica* s. l. (top); dry perigons closing fruits in *P. judaica* subsp. *speluncarum* (middle); fruits in *P. judaica* subsp. *speluncarum* (bottom).

Distinguishing characters between *Parietaria judaica* subsp. *speluncarum* (1) and the other taxa of *P. judaica* agg. (2) are as follows:

Shape and colour of fruits:

- (1) spindle-shaped [diagnostic character], black;
- (2) ovoid, flattened, black to light brown.

Indumentum of plants:

- (1) densely hairy, hairs patent;
- (2) predominantly soft, hairy or sparsely hairy to glabrescent, mostly not patent.

Corolla of female flowers in fruit:

- (1) smaller, 4(-5 mm), deeply divided, hairs 0.3-0.7 mm long;
- (2) mostly larger, (4-)5 mm, more shallowly divided, mostly shortly hairy (0.2-0.5 mm) to glabrescent.

General habitus of plants:

- (1) plants small-leaved (5-9 mm), not exceeding 100 mm in height, blackish green coloured, densely brush-like tufted, with many dry stalks;
- (2) plants mostly taller (150-300 mm) and large leaved (40-70 mm), bright to greyish green, laxly tufted, without conspicuous dry stalks.

Ecology

Plants of *Parietaria judaica* subsp. *speluncarum* colonize an exceptional, very extreme natural habitat, in contrast to rather euryvalent and synanthropic character of the rest of the *P. judaica* aggregate.

*P. *speluncarum* is a typical chasmophyte, growing solely in the narrower fissures of limestone rocks with the inclination over 70°, which are screened from above (at least partially) by overhanging rocks. The vast majority of plants were found on the faces and ceilings of spacious rock overhangs and cave mouths with the inclination to 120°, at some places to 150°. The plants mostly grow upwards down. They form a peculiar community on these habitats. According to unpublished phytosociological records (17 relevés), the most frequent species are *P. *speluncarum* (dominant), *Parietaria judaica* L. s. s. (dominant), *Ajuga chasmophila* DAVIS, *Hypericum nanum* POIRET, *Scrophularia xanthoglossa* agg. and *Achillea falcata* L.

The habitats of the taxon are rather shady, dry. Probably a substantial part of the water supply comes from horizontal precipitation. The sites seemed to be highly nitrophilous (nesting-place of swallow *Ptyonoprogne rupestris* and sparrow *Petronia petronia*, growth of aerophytic Cyanophytes, dust deposition from dry cave bottoms with the accumulation of sheep and goat excrements).

On the other hand, *P. judaica* s.s. shows low cover (though high frequency) on rock overhang habitats. The species is widespread on stony habitats with various inclination, strongly influenced by man, as on walls and rocks in the villages, scarcely on stony scree or open ruderal places. Conditions of the *P. judaica* s.s. communities are illustrated by a regular occurrence of apparently nitrophilous and synanthropic plants, e. g. *Hyoscyamus aureus* L., *Capparis spinosa* L., and *Hordeum murinum* L. *P. *speluncarum* has never been found in these communities.

Distribution

Only one locality was found hitherto. It is not impossible that the subspecies is a stenoendemic, split off from the plastic *P. judaica* agg. in conditions of small isolated carstic area. *Ajuga chasmophila*, regarded as a stenoendemic species (MOUTERDE 1966), occurs in the same sites as *P. *speluncarum*.

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