

Taxonomic and nomenclatural notes on *Luzula sylvatica* s. l. (Juncaceae) with special reference to Italian taxa. Lectotypification of *Luzula sicula*

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Abstract

TAXONOMIC AND NOMENCLATURAL NOTES ON *LUZULA SYLVATICA* S. L. (JUNCACEAE) WITH SPECIAL REFERENCE TO ITALIAN TAXA. LECTOTYPIFICATION OF *LUZULA SICULA*.— Originally the name *Luzula sicula* indicated a species endemic to Sicily, replacing *Luzula maxima* (= *L. sylvatica*) widespread in the Italian peninsula and Europe. Nowadays, this taxonomic treatment and this geographical distribution have been superseded. In fact, most authors regard *L. sicula* as a subspecies of *L. sylvatica*, a very variable species occurring in Italy also with subsp. *sylvatica* and subsp. *sieberi*. The latter is morphologically very similar to subsp. *sicula*; indeed they have been often joined or synonymized. In addition, both subspecies would occur not only in Sicily, but also in the central and southern part of the Italian peninsula. However, the relationships between these two taxa remain unclear in southern Italy. For facilitating further research, in this contribution we provide a lectotypification of the name *L. sicula* and a discussion of its diagnostic features.

Key words: endemism; Filippo Parlatore; Italian flora; morphological variability; nomenclature.

Resumen

NOTAS TAXONÓMICAS Y NOMENCLATURALES SOBRE *LUZULA SYLVATICA* S. L. (JUNCACEAE) CON ESPECIAL REFERENCIA A LOS TAXONES ITALIANOS. LECTOTIPIFICACIÓN DE *LUZULA SICULA*.— Originalmente el nombre *Luzula sicula* hacía referencia a una especie endémica de Sicilia, que sustituye a *Luzula maxima* (= *L. sylvatica*) muy extendida en la península itálica y en Europa. Hoy en día, tanto este tratamiento taxonómico como esta distribución geográfica han sido sustituidos. De hecho, la mayoría de los autores consideran a *L. sicula* como una subespecie de *L. sylvatica*, una especie muy variable que está presente en Italia, y que cuenta con otras dos subespecies, subsp. *sylvatica* y subsp. *sieberi*. Esta última es morfológicamente muy similar a la subespecie *sicula*; por eso, a menudo se han unido o sinonimizado. Además, ambas subespecies estarían presentes no sólo en Sicilia, sino también en la parte central y meridional de la península italiana. Sin embargo, las relaciones entre estos dos taxones siguen sin estar claras en el sur de Italia. Para facilitar la investigación futura, en esta contribución proporcionamos la lectotipificación del nombre *L. sicula* y una discusión de sus características diagnósticas.

Palabras clave: endemismo; Filippo Parlatore; flora italiana; nomenclatura; variabilidad morfológica.

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INTRODUCTION

Luzula sicula Parl. (Juncaceae) is a critical taxon belonging to the aggregate of *L. sylvatica* (Huds.) Gaudin. This latter is often regarded as a single highly polymorphic species, widely occurring in Europe, eastward up to the West Caucasus, Transcaucasia, and N Türkiye (Kirschner, 2002). In this circumscription, the aggregate of *L. sylvatica* includes perennial caespitose herbs (up to 100 cm tall), growing mainly in shaded habitat, being characteristic of many woody formations, but it is also recorded in open grasslands and along rivers (Pignatti, 1982, 2017–2019; Fernández Piedra & Talavera, 2010). If *L. sylvatica* is regarded as a single species, four subspecies are usually recognized (POWO, 2024; Euro+Med, 2006–), even if some populations in the South-Eastern part of the range require further study (Kirschner, 2002): *Luzula sylvatica* subsp. *sylvatica*, widespread all over the range of the species (and sometimes elsewhere cultivated as an ornamental plant); *L. sylvatica* subsp. *henriquesii* (Degen) P. Silva, occurring in the northern Iberian Peninsula; *L. sylvatica* subsp. *sieberi* (Tausch) K. Richt., present in most of southern and central Europe; and *L. sylvatica* subsp. *sicula* (Parl.) K. Richt., endemic to southern Italy and Sicily (Peruzzi *et al.*, 2015).

The infraspecific taxa are distinguished on account of several qualitative and especially quantitative characters (Kirschner, 2002), i.e. the plant height, the length of the tepals, the ratio between the tepals and the capsule, the width of the basal leaves, and the leaf hairiness. The overlapping of the metric features and the extreme variability of the qualitative characters within the same population make the above outlined taxonomic treatment still controversial. In fact, Fernández Piedra & Talavera (2010), after a wide review of South-Western European material, concluded that there are no clear differences between the presumed subspecies. Therefore, they recognized for the Iberian flora only *L. sylvatica* subsp. *sylvatica*, including in it both subsp. *sieberi* and subsp. *henriquesii*, but not subsp. *sicula*, mentioned as a well-distinct taxon of volcanic soils.

In the opinion of Parlatore (1857), *Luzula sicula* can be distinguished from *L. sylvatica* chiefly on account of its erect (vs. divaricate) peduncles, the outer tepals shorter than the inner ones (vs. equalling in length), the perigonium longer than the capsule (vs. equalling), the anthers up to three times as long as the filaments (vs. much longer than the very short filaments), the narrower leaves and the less robust habit. It would be endemic to Sicily, where it would completely replace *L. sylvatica* (this latter occurring on the mainland, including southern Italy). Despite Cesati *et al.* (1869) accepted *L. sicula*, Caruel (1869) sharply synonymized it with *L. maxima* (Reichard) DC. (i.e. *L. sylvatica*). Parlatore (1857), Cesati *et al.* (1869), and Caruel (1869) did not treat *L. sieberi* Tausch, a taxon described for Central Europe, presumably because believed by them as not occurring in Italy. According to the original description (Tausch, 1836), *L. sieberi* shares several features with *L. sicula*, such as the habit less robust and the anthers less rich than *L. sylvatica*, as well as the narrower leaves; however, *L. sieberi* would have tepals shorter than capsule (but see below).

Nyman (1882) first proposed the subspecific rank for *L. sicula* under *L. maxima* (Reichard) DC. (= *L. sylvatica*) and regarded *L. sieberi* as a variety of this latter taxon. Richter (1890) combined the Parlatore's name under *L. sylvatica* and regarded *L. sieberi* as a further subspecies of it. Both Nyman (1882) and Richter (1890) retained *L. sicula* as endemic to Sicily, following Parlatore (1857); however, they indicated for Italy both the other two subspecies. Also, Buchenau (1890, 1906) regarded *L. sicula* as endemic to Sicily. Buchenau (1890) first described it as a form of *L. sylvatica* var. *sieberi* (Tausch) Buchenau, even if without a formal combination; later, as a subvariety of that (Buchenau, 1906). Arcangeli (1882) in a first time kept as separate *L. sicula* and *L. maxima* (i.e. *L. sylvatica*); however, later he considered *L. sicula* as a subspecies of "*L. silvatica*" (Arcangeli, 1894). Fiori (1896) listed *L. sieberi* as a variety of *L. sylvatica* ("*sylvatica*"); more relevant, he synonymized *L. sicula* with this variety. It is important to note that in the Fiori's treatment, no clear geographical or ecological separation between *L. sylvatica* var. *sylvatica* ("*typica*") and var. *sieberi* emerges. The same view was expressed later (Fiori, 1923), without citing *L. sicula* anymore and adding the var. *congesta* Bouvier for scattered localities on the Alps; this taxon has been successively included in *L. sylvatica* subsp. *sylvatica* (Zangheri, 1976) or neglected at all. Chrtek & Krisa (1980) con-

sidered *L. sieberi* as an Alpine-Dinaric species, mainly distinct from *L. sylvatica* by the narrow leaves, and *L. sicula* as a doubtful taxon included in *L. sylvatica*. It is to be noted that the tepals are said by Chrtek & Krusa (1980) heteromorph in *L. sylvatica*, contrary to the statement in Parlato (1857). Pignatti (1982), basing on the similarity of leaf width, habit, and anthela branching, joined at subspecific rank *L. sicula* to *L. sieberi*. Moreover, he reported that both taxa show tepals shorter than the capsule, despite the statement by Parlato (1854), and in his dichotomous keys themselves (Pignatti, 1982: 158). According to Pignatti (1982), “*L. sieberi* subsp. *sicula*” (the combination was invalid) would occur in the broadleaved woods of South Italy and Sicily, whereas the *L. sieberi* subsp. *sieberi* would grow in spruce forests and subalpine moorlands of the Alps and northern Italy; finally, he reported the authentic *L. sylvatica* for the mountains of SE Europe (Carnic Alps included).

Kirschner (2002), and POWO (2024) after him, substantially followed the treatment by Richter (1890) but extended the range of *L. sylvatica* subsp. *sicula* northward to the Italian peninsula. Bartolucci *et al.* (2018) reported *L. sylvatica* subsp. *sieberi* for almost all Italy, while subsp. *sylvatica* would occur mainly in northern and central regions; finally, those authors recorded *L. sylvatica* subsp. *sicula* from Apennines to Sicily. Pignatti (2017–2019), despite citing Kirschner (2002), proposed a different taxonomic treatment of the aggregate, considering the three taxa of the Italian flora at species level (*Luzula sylvatica*, *L. sieberi*, and *L. sicula*), and proposing some diagnostic features apparently conflicting with those provided before (Pignatti, 1982). In the frame of the updating of the checklist of the Italian vascular flora (Bartolucci *et al.*, 2024), the revision of herbarium material of *L. sylvatica* subsp. *sicula* made clear the incongruence among available identification keys (e.g. Arcangeli, 1882; Fiori, 1896, 1923; Chrtek & Krusa, 1980; Pignatti, 1982, 2017–2019; Kirschner, 2002). Different opinions by scholars certainly made difficult the correct attribution, as already shown in the past for the central and southern Italy (Anzalone & Lattanzi, 2004; Anzalone *et al.*, 2010; Santangelo *et al.*, 2010), where this uncertainty especially deals with *L. sieberi* and *L. sicula*. In fact, the key characters pointed out in the most employed floras, i.e. Chrtek & Krusa (1980), and Pignatti (1982, 2017–2019), keep together *L. sicula* and *L. sieberi*. In this regard, it is crucial to check type material of *L. sicula*, whose typification is still lacking (Peruzzi *et al.*, 2015).

MATERIALS AND METHODS

We examined the protologues of the names *L. sicula* (Parlato, 1854) and *L. sieberi* (Tausch, 1836) and the relevant literature cited in the protologues, as well as original elements for both names. For comparison purposes, we examined additional herbarium material at FI and NAP, as well as further specimens online (CAT, K, P, PAL, PI, PRC) [herbarium codes according to Thiers (2024)]. The articles cited refer to Turland *et al.* (2018), hereafter ICN [International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code)].

RESULTS AND DISCUSSION

Lectotypification of the name *Luzula sicula*

Parlato (1854) validly published the name *Luzula sicula* by a Latin description, a brief list of misapplied names by Gussone (1827, 1842–1843, 1845), Bertoloni (1840), and Parlato (1845) himself, and provided notes in Italian: the habitat (“Nei luoghi boschivi dei monti”, transl. “In the mountain woods”), several localities (“nelle Madonie, in Montesoro, nei boschi di Caronia, di Mistretta, di Cannata, di Francavilla ed altrove”), the blooming time, the life cycle, and taxonomical observations for distinguishing the new species from *L. graeca* (Chaub. & Bory) Kunth [= *L. nodulosa* E. Mey., nom. cons.]. No syntype was directly cited in the protologue. We located several pertinent specimens in the Parlato’s herbarium at FI-HCI, bar-

codes FI002902, FI002906, FI002907, and FI002908. They were indicated in separate labels by Kirschner as “syntypes”. Nevertheless, they are not really syntypes, but only original material, because not explicitly cited in the protologue (ICN, Art. 9.6). Moreover, FI002902 was collected by Gussone on the Madonie Mounts, but sent to Florence only in 1856, after the protologue publication (Parlatore, 1854), so it is not suitable for lectotypification purposes, because there is no proof that it was in Parlatore’s availability when he described the species.

On the contrary, according to the label handwritten by Parlatore, FI002906 includes a flowering individual collected by Todaro in July 1848 in Montesoro (Nebrodi massif, Province of Messina, Sicily). Even if originally labelled by Parlatore as *L. graeca*, it was later amended by himself into “*Luzula sicula* Parl. fl. It.”.

The specimens barcoded FI002907 and FI002908 were collected personally by Parlatore and belonged to his personal herbarium. He donated them to the Herbarium Centrale Italicum in the same year in which he founded it, i.e. in 1842 (Cuccuini, 2009). These two specimens are currently mounted on the same sheet. In particular, FI002908 was gathered at “passo della botte”, FI002907 at “portella dell’arena”, both on the Madonie Mounts (metropolitan city of Palermo, Sicily): these are the only localities already cited in Parlatore (1845). Moreover, FI002908 was originally labelled as *Luzula graeca*, but Parlatore himself added “*Luzula sicula*”.

Both specimens are represented by fruiting individuals, with a few withered flowers. They match the protologue (Parlatore, 1854), mostly for the narrow and linear leaves (up to five mm wide), hairy along the margins (especially at the base), the tepals apiculate and generally longer than the mature capsule, the inflorescence lax with branches thin and erect or erect-divaricate. Also on account of the acuminate tips of the leaves and of the length of the tepals (four mm or more), these specimens fully support the current usage of the name (Kirschner, 2002). In addition, FI002908 includes a richer and better-preserved plant, so it is the best choice for typification.

Luzula sylvatica* subsp. *sicula (Parl.) K. Richt., Pl. Eur. 1: 183. 1890 [Oct.]

≡ *Luzula sicula* Parl., Nuov. Gen. Sp. Monocot.: 59. 1854 [basionym]

≡ *L. maxima* subsp. *sicula* (Parl.) Nyman, Consp. Fl. Eur.: 751. 1882 [Oct.]

– *Luzula maxima* sensu Gussone (1827, 1842–1843), non (Reichard) DC.

– *Luzula graeca* sensu Gussone (1845), non (Chaub. & Bory) Kunth

– “*Luzula sieberi* subsp. *sicula*” Pignatti (1982: 444), nom. inval.

Lectotype (here designated): [Italy, Sicily], “nelle Madonie al passo della botte, in sylvaticis montosis”, s. d. [ante 1854], [*F. Parlatore*] s. n. (FI, barcode FI002908! image of the lectotype available on: <https://parlatore.msn.unifi.it/types/search.php>).

Notes: Despite the statement by Buchenau (1906), Richter (1890) did not combine *L. sicula* as a sub-variety of *L. sieberi*.

The lectotype of *Luzula sieberi*

Tausch (1836) validly published the name *Luzula sieberi* by a Latin description and a citation of herbarium specimens, i.e. those labelled as *Juncus maximus* var. *angustifolius* by F. W. Sieber in the *Herbarium florum Austriacae*. Kirschner (2002), in indicating the type material of *L. sieberi*, wrote: “T: [Austrian Alps] *F.W.Sieber* [*Herb. Fl. Austr.*] 104, ut *Juncus maximus* β *angustifolius*; lecto: PRC, designated here; isolecto: BRNM”. At PRC, three different sheets belong to the no. 104 of the *Herbarium florum austriacae* by Sieber and are filed as “original material” for the name *L. sieberi*: PRC 455772, PRC 455773, and PRC 455774. They correspond, however, only to two original sheets.

In fact, as specified by P. Mráz (<https://prc.jacq.org/PRC455773>), the two latter ones constituted originally a single specimen, but were later (in September 2019) mounted on different sheets because of the limited space. The two original printed labels by Sieber, i.e. that of PRC 455772 and the other one of PRC 455773 - PRC 455774, both report “104. *Juncus maximus* Willd. \ α latifolius. β angustifolius. Sieber. \ in subalpinis silvestribus.”. However, according to Mráz (<https://prc.jacq.org/PRC455772>), only on the label of PRC 455772, Tausch himself deleted “ α latifolius” and added “Sieberi Tausch”. Therefore, the indication by Kirschner (2002) is linked unequivocally to this single specimen, i.e. PRC 455772, and no second-step typification is required (*cf.* ICN, Art. 9.17). Besides, on the same sheet, J. Štěpánek added a label with the indication “lectotypus”. Obviously, neither this indication nor that online by Mráz (“Typified by: P. Mráz 2019”) were validly published.

Taxonomic considerations

The present treatment, which recognizes *L. sicula* as a subspecies of *L. sylvatica* and distinct from *L. sylvatica* subsp. *sieberi*, must be regarded as provisional. After examination of rich material, we not only agree with previous authors (e.g. Pignatti, 1982; Kirschner, 2002; Fernández Piedra & Talavera, 2010) that *L. sylvatica* subsp. *sicula* cannot be regarded as a distinct species, but we also retain that its relationships with the other subspecies of *L. sylvatica* (especially subsp. *sieberi*) deserve further study. The Table 1 reports a synoptical view of the diagnostic features indicated by the most relevant treatments including *L. sicula* and points out the characters which resulted most reliable according to our preliminary observations. As observed by previous authors (Buchenau, 1890; Fiori, 1923; Pignatti, 1982; Kirschner, 2002), these two taxa share several features, especially if compared with *L. sylvatica* (see what reported in the introduction and Table 1).

According to Kirschner (2002), *L. sylvatica* subsp. *sicula* would show narrower and more acuminate leaves than subsp. *sieberi*; however, in the lectotype itself of *L. sieberi*, the leaves are often narrower than five mm and the tips can be also acuminate (two features which resemble subsp. *sicula*). According to our preliminary observations, the most reliable characters to distinguish *L. sylvatica* subsp. *sicula* and subsp. *sieberi* seem to be the length of tepals (Bernardo *et al.*, 2011) and, to a lesser extent, the number of flowers on the secondary anthels and the size of the seeds (Table 1); however, they are all quantitative and overlapping. The critical character of the ratio between the lengths of the tepals and the capsule, on which several authors insist (e.g. Pignatti, 1982, 2017–2019) can mislead, as we verify that it can vary also in the same specimen. For example, in the lectotype of *L. sicula*, some capsules are distinctly longer than the perigonium. More importantly, according to the protologue (Tausch, 1836), *L. sieberi* has the capsule longer than the tepals, the contrary of what observed by other authors (Hess *et al.*, 1967; Chrtek & Krisa, 1980; Kirschner, 2002), as already pointed out by Anzalone & Lattanzi (2004). The same uncertainty involves even *L. sylvatica* subsp. *sylvatica* (*cf.* Gaudin, 1811; Buchenau, 1890; Chrtek & Krisa, 1980; Kirschner, 2002). The differences in the degree of the hairiness at the base of the tufts and along the leaf margins, as well as in the shape of leaf apex, are clear when the lectotypes are compared, but break down in wider samplings. The correct interpretation of the variability of *L. sylvatica* s. l. is also affected by their obscure geographical or ecological separation. In fact, despite the statement by Pignatti (2017–2019), *L. sylvatica* subsp. *sieberi* has been reported out of the alpine habitats indicated by him, i.e. in the same broadleaved woods in which *L. sylvatica* subsp. *sicula* occurs (e.g. Cancellieri *et al.*, 2017). In addition, despite what stated by Fernández Piedra & Talavera (2010), plants referable to *L. sylvatica* subsp. *sicula* are not exclusive to volcanic soils; indeed, most of those cited in the protologue (Parlatore, 1854) are on calcareous massifs.

Table 1. Principal diagnostic features of *Luzula sylvatica*, *L. sicula*, and *L. sieberi* according to various authors (see the main text for further details). n. t. = not treated. An asterisk indicates the most reliable characters and descriptions of them for discriminating the three taxa, according to our preliminary observations.

Taxon	Authors	Taxonomic treatment	Height (cm) *	Leaf shape	Leaf length (cm) *	Leaf apex	Leaf width (mm) *	Leaf hairiness	Inflorescence branches	Flowers of secondary anthers (no.) *	Flowers of terminal clusters (no.)	Tepal shape	Tepal micro	Tepal length (mm) *	Filament length	Style length	Stigma length	Capsule shape	Capsule vs. tepals ratio	Seed length (mm) *	
<i>Luzula sylvatica</i>	Parlatore (1857)	<i>L. sylvatica</i> Gaud.	-	lanceolate-linear	-	-	-	hairy on margins	divaricate	-	2-5	acuminate (the outer ones) or obtuse (the inner ones)	present	-	shorter than anther	almost twice than ovary	equalling to style	ovate and acute-mucronate	≈ 1	-	
	Arcangeli (1882)	<i>L. maxima</i> DC.	-	lanceolate-linear	-	-	6-10	-	-	-	-	acuminate	present	-	very short	-	-	ovate, acute	-	-	
	Fiori (1896)	<i>L. sylvatica</i> (Huds.) Gaud. var. <i>typica</i>	40-60	-	20-30 *	-	6-13	hairy on margins	divaricate	-	-	acuminate	-	-	-	-	-	mucronate	-	-	
	Chrek & Krisa (1980)	<i>L. sylvatica</i> (Huds.) Gaudin	(30-40-80)-(100)	-	-	-	5-20	sparsely to densely hairy	-	2-5	-	the inner ones longer and with hyaline margins	-	3-4(-4.5)	six times shorter than anther	-	-	ovoid	≈ 1	1.5-2.0(2.2)	
	Pignatti (1982)	<i>L. sylvatica</i> (Huds.) Gaudin	30-100	-	-	-	5-12(25)	-	up to 10 cm	-	-	-	-	-	-	-	-	-	= 1	-	
	Kirschner (2002)	<i>L. sylvatica</i> (Huds.) Gaudin subsp. <i>sylvatica</i>	50-100 *	-	-	-	9-12 *	margins ciliate	-	15-35	2-3	(2.7-3)	-	(2.1-2.7-3.0(-3.7) (the outer ones) *)	(0.2-0.3-0.5(-0.7) mm [anther 1-1.9 mm])	-	2.5-2.8	oblong-ovoid, mucronate, with micro up to 0.5 mm	usually ≈ 1	(1.0-1.3-1.5(-1.8) [up to 0.8 wide] *)	
<i>Luzula sieberi</i>	Pignatti (2017-2019)	<i>L. sylvatica</i> (Huds.) Gaudin	30-100	-	up to 25	-	5-25	hairs up to 5 mm or more	up to 10 cm	-	-	-	present	-	-	-	-	-	= 1	-	
	Parlatore (1857)	not treated	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Arcangeli (1882)	not treated	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Fiori (1896)	<i>L. sylvatica</i> var. <i>sieberi</i> (Tausch)	20-30	-	20-30 *	-	4-6	hairy on margins	divaricate	-	-	acuminate	-	-	-	-	-	mucronate	-	-	
	Chrek & Krisa (1980)	<i>Luzula sieberi</i> Tausch	(30-40-60)	-	-	-	3-6	hairy	-	2-3	-	-	-	3-3.5	shorter than anther	-	-	ovoid	= 1	1.2-1.3	
	Pignatti (1982)	<i>L. sieberi</i> Tausch subsp. <i>sieberi</i>	40-60	-	-	-	4-5	hairy	the lowest patent or erect, 3-6(-8) cm long, the central up to 6 cm	-	-	acute but not aristate	? (cf. the description)	2-3	-	-	-	-	< 1 (in the key); > 1 (in the description).	-	-
<i>Luzula sicula</i>	Kirschner (2002)	<i>L. sieberi</i> Tausch	< 55(70) *	-	-	subobuse, sharply mucronate	5-8 *	margins ciliate	-	15-20	1-3	(2.7-3.9)	-	2.7-3.9 (the outer ones) *	0.2-0.5 mm [anther (1.7-1.9 (-2.3) mm)]	-	2.2-2.6	oblong-ovoid, mucronate, with micro up to 0.8 mm	≤ 1	1.2-1.9 [c. 0.7 wide]	
	Pignatti (2017-2019)	<i>L. sieberi</i> Tausch	40-60	-	20-30 * (inferred)	-	3-5	hairy	the lowest patent or erect, 3-6(-8) cm long, the central up to 6 cm	-	-	acute but not aristate	-	-	-	-	-	-	≥ 1 (in the description); > 1 (in the key)	-	-
	Parlatore (1857)	<i>L. sicula</i> Parl.	-	widely linear	-	-	-	hairy on margins	thin and suberect	-	2-5	acuminate (the outer ones) or obtuse (the inner ones)	present	-	less than three times as long as the anther	-	-	ovate-subcordate, mucronate	≤ 1	-	
	Arcangeli (1882)	<i>L. sicula</i> Parl.	-	widely linear	-	-	-	hairy on margins	-	-	2-5	-	-	-	-	-	-	ovate, obtuse	< 1	-	
	Fiori (1896)	synonym of <i>L. sylvatica</i> var. <i>sieberi</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Chrek & Krisa (1980)	A doubtful taxon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Luzula sicula</i>	Pignatti (1982)	<i>Luzula sieberi</i> Tausch subsp. <i>sicula</i> (Parl.) Pign.	40-60	-	-	-	4-5	villous on margins	the lowest ones patent or pendulous, the central one up to 10-15 cm, the remaining 5-8 cm	-	-	very acuminate	0.5-0.8 mm long	2-3	-	-	-	-	< 1 (in the key); > 1 (in the description).	-	-
	Kirschner (2002)	<i>L. sylvatica</i> subsp. <i>sicula</i> (Parl.) K. Richt.	30-45*	-	-	elongate-acuminate tip	3-6 *	margins and base very densely ciliate	-	8-13 (up to 15)	2-3	-	-	4.3-4.8(-5.2) (the outer ones) *	0.2-0.6 (2.2-2.9(-3.0) mm)	-	2.4-2.6	more or less ovoid, with micro up to 0.8 mm	≤ 1	(1.5-1.7-2.0(-2.2) [1.1-1.3 wide] *)	
	Pignatti (2017-2019)	<i>Luzula sicula</i> Parl.	30-60	-	20-30 (inferred)	-	3-5	villous on margins	the lowest ones patent or pendulous, the central one up to 10-15 cm, the remaining 5-8 cm	-	-	very acuminate	0.5-0.8	-	-	-	-	-	> 1 (in the description); > 1 (in the key)	-	-

In any case, plants referable to *L. sylvatica* subsp. *sicula* are effectively widespread in southern Italy out of Sicily, as first stated by Gussone (1845, sub *L. graeca*). A more convincing word about the distinctness of these subspecies and their relationship with *L. sylvatica* might be retrieved only after an extensive sampling throughout the whole ranges and the application of integrative taxonomy methods, with morphometric and molecular analyses.

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AUTHORSHIP CONTRIBUTION STATEMENT

Annalisa Santangelo, Emanuele Del Guacchio: Conceptualization, Data curation, Investigation, Methodology, Writing – original draft, Writing – review & editing.

DECLARATION OF COMPETING INTEREST

The authors of this article declare that they have no financial, professional or personal conflicts of interest that could have inappropriately influenced this work.

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