Limonium greuteri (Plumbaginaceae), a new species from the island of Corsica (France)

Author: Erben, Matthias

Source: Willdenowia, 36(1) : 145-148

Published By: Botanic Garden and Botanical Museum Berlin (BGBM)

URL: https://doi.org/10.3372/wi.36.36111
Limonium greuteri (Plumbaginaceae), a new species from the island of Corsica (France)

Abstract

Limonium greuteri is described as a species new to science so far known only from the peninsula La Revellata in NW Corsica. It is well characterized by its habit with its long, densely spirally leafy caudices, fleshy leaves and the short, densely warty, flexuous, articulate stems and reflexed branches. According to its morphology and chromosome number (2n = 27) it is a member of the L. articulatum aggregate and seems to be related to L. florentinum and L. corsicum.

Key words: angiosperms, sea lavender, Limonium articulatum aggregate, taxonomy, chromosome number.

Limonium greuteri Erben, sp. nov.

Holotype: Korsika, Haute-Corse, westlich von Calvi, La Revellata, Felsküste an der Anse Recisa, Granitgestein, 10-25 m, 42°33.45'N, 9°43.32'E, 16.9.2002, Erben E 1216 (MSB 121460; isotypes: B, herb. Erben) – Fig. 1-2.

Planta perennis, glabra, dense verrucosa, pulvinata ad suffruticosa, 5-20 cm alta, pluribus caulibus adscendentibus ad erectis. Caudiculi 2-10 cm longi, in parte superiore ramosi. Folia carnosa, dense spiraliter disposita, 4-20 mm longa et 2-5 mm lata, oblongo-spathulata, apice obtusa, utrimque verrucosa, subcarinata. Caules dense verrucosi, 20-80 mm longi, flexuosi, articulati, intermodis 2-10 mm longis, dense ramosi. Rami dense verrucosi, solo in partibus 1/3-1/4 superioribus fertiles, 4-30 mm longi, subflexuosi, articulati, laxe ramosi, patentes ad reflexi, sub angulis 100-140° abeuntes. Spicae in apice inflorescentiae dispositae, 5-20 mm longae, saepe ad 1-2 spiculas reductae, subflexuosa, 5-6 mm longae, ad 4-5 in 1 centimetro dispositae. Bractea inferior 0.9-1.1 mm longa et 1-1.5 mm lata, acuta, margin late membranacea. Bractea media tenuis, membranacea, 1.2-1.4 mm longa et 1-1.2 mm lata, late elliptica, rotundata. Bractea superior 3.7-4 mm longa et 2.6-3 mm lata, elliptica, obtusa, dorso longitudinaliter subarcuata, margine late membranacea, parte centrali imprimis basalius carnosa, 2.8-3.8 mm longa et 1.7-2 mm lata, oblonga, acumina, acumine 0.7-0.8 mm longo, margin fere contingente. Calyx obconicus, plerumque curvatus, 4.6-5.3 mm longus, ex bracteae superiore 2-2.5 mm exsertus, tubo in parte inferiore unilateralius sparsim breviter piloso; dentes calycis...
Fig. 1. *Limonium greuteri*, holotype.
c. 0.8 × 0.9 mm, semi-elliptici; costae tubi supra basim dentium calycis desinentes. Corolla caeruleo-violacea, diametro 5-6 mm. Chromosomatum numerus: 2n = 27.

Plant perennial, glabrous, densely warty-rough, pulvinate to suffruticose, 5-20 cm tall, with many ascending to erect stems. Caudices 2-10 cm long, branched and densely spirally leafy in the upper part. Leaves fleshy, 4-20 mm long and 2-5 mm broad, oblong-spathulate to narrowly cuneate-spathulate, apex obtuse, warty, delicately carinate; basal leaves regularly faded. Stems densely warty, 20-80 mm long, flexuous, articulate, with 2-10 mm long, densely branched internodes. Branches densely verrucose, fertile in the upper 1/3-1/4, 4-30 mm long, slightly articulate, slightly flexuous, spreading to reflexed, forming an angle of 100-140° with the stem, the lower sometimes with some short, entire, sterile branchlets, the higher loosely branched. Spikes mostly located on the top of the inflorescence, 5-20 mm long, often reduced to 1-2 spikelets, slightly flexuous. Spikelets 5-6 mm long, arranged with 4-5 spikelets per cm, composed of 1-3 flowers; outer bract 0.9-1.1 mm long and 1-1.5 mm broad, triangular-ovate, acute; bract margin

| Table 1. Comparison of morphological characters of Limonium greuteri and related species. |
|---------------------------------|-----------|-----------|-----------|
| Leaves [mm]                     | L. greuteri | L. florentinum | L. corsicum | L. articulatum |
| Length of stems [cm]            | 2-8        | 10-15      | 5-20       | 5-40          |
| Length of spikes [mm]           | 5-20       | 30-80      | 5-25       | 5-45          |
| Spikelets [per cm]              | 4-5        | 0.5-3      | 3-5        | 2-6           |
| Length of spikelets [mm]        | 5-6        | 6-7        | 6-6.5      | 5.5-7         |
| Inner bract [mm]                | 3.7-4 × 2.6-3 | 4.4-7 × 3.2-3.5 | 3.3-4 × 2.7-3.1 | 4.2-5.1 × 2.1-3.2 |
| Length of calyx [mm]            | 4.6-5.3    | 4.8-5.5    | 5.2-5.8    | 4.5-5.2       |
broadly white-membranous; middle bract thin, membranous, 1.2-1.4 mm long and 1-1.2 mm broad, widely elliptic, rotundate; inner bract 3.7-4 mm long and 2.6-3 mm broad, elliptic, obtuse, dorsally longitudinally subarcuate; margin broadly white-membranous; central part fleshy, chiefly near the base, 2.8-3.8 mm long and 1.7-2 mm broad, oblong, on the upper end with one triangular tip, 0.7-0.8 mm long reaching nearly the margin. Calyx obconic, very frequently curvate, 4.6-5.3 mm long and exerted beyond the inner bract by 2-2.5 mm, lacerate after anthesis; calyx tube near the base on one side shortly hairy, with five fleshy ribs ending above the base of the lobes; calyx lobes 0.8 × 0.9 mm, semi-elliptic. Corolla blue-violet, 5-6 mm wide.

Chromosome number. – Counts on plants from the type locality cultivated at the Botanic Garden München (accession number Li-1620; seeds from the type collection Erben E1216) revealed 2n = 27.

Eponymy. – This new species is dedicated to Prof. Werner Greuter, First Director of the Botanic Garden and Botanical Museum Berlin-Dahlem, in recognition of his outstanding contributions in all areas of botany.

Distribution. – Limonium greuteri is distributed only on the little peninsula La Revellata in the NW of the island of Corsica.

Relationship. – The new species is without doubt part of the Limonium articulatum aggregate in view of its morphological similarity and has been confused hitherto with L. florentinum Arrigoni & Diana and, especially, with L. corsicum Erben, which are all equally triploid with 2n = 27 chromosomes (Erben, unpubl.). However, the comparative study of field collections and cultivated material (Table 1) indicate that the La Revellata plants belong to a separate species.

Limonium florentinum was described from St.-Florent, east of La Revellata. It differs from L. greuteri because of its longer, nearly erect and slightly articulate stems and branches, which form an angle of 50-80° with the stems, the non-fleshy leaves, the longer spikes and more laxly arranged spikelets.

Limonium corsicum, with its locus classicus located near Galeria, south of La Revellata, differs from L. greuteri by longer, more delicate stems and branches, non-fleshy leaves, longer spikelets and longer calyces.

Additional specimens investigated. – CORSÈ: Calvi, La Revellata, Côte W Baie de Recisa, groupe-ment maritime de bas de falaise (granite mélangé de Quaternaire arénacé) à Crithmum et Limo-nium, 11.6.1979, Laminon & al. 79/Ca395 (LG, herb. Erben).

References


Address of the author:
Matthias Erben, Department Biologie I der Ludwig-Maximilians-Universität München, Bereich Biodiversitätsforschung: Systematische Botanik, Menzinger Str. 67, D-80638 München, Germany; e-mail: erben@lrz.uni-muenchen.de