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MATTHIAS ERBEN

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

**Abstract**

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*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 ad anguste cuneato-spathulata, apice obtusa, utrimque verrucosa, subcarinata. *Caules* dense verrucosi, 20-80 mm longi, flexuosi, articulati, internodiis 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, subflexuosae. *Spiculae* 5-6 mm longae, 1-3-florae, ad 4-5 in 1 centimetro dispositae. *Bractea inferior* 0.9-1.1 mm longa et 1-1.5 mm lata, triangulari-ovata, acuta, margine 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 membranaceo, parte centrali imprimis basaliter carnosa, 2.8-3.8 mm longa et 1.7-2 mm lata, oblonga, acuminata, acumine 0.7-0.8 mm longo, margine fere contingente. *Calyx* obconicus, plerumque curvatus, 4.6-5.3 mm longus, ex bractea superiore 2-2.5 mm exsertus, tubo in parte inferiore unilateraliter sparsim breviter piloso; dentes calycis

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Fig. 1. *Limonium greuteri,* holotype.

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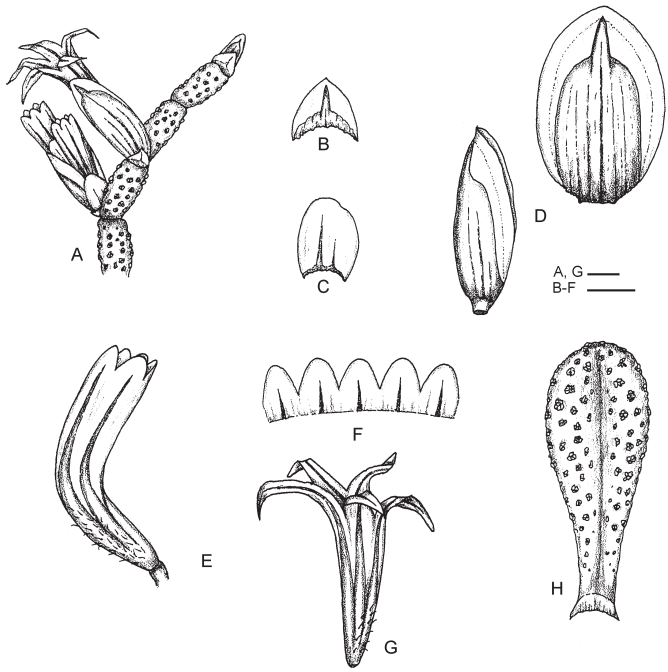



Fig. 2. *Limonium greuteri* – A: spikelet; B: outer bract; C: middle bract; D: inner bract; E: calyx at anthesis; F: calyx margin; G: calyx after anthesis; H: leaf. – Scale bars = 1 mm; after the holotype.

c. 0.8 × 0.9 mm, semi-elliptici; costae tubi supra basim dentium calycis desinentes. *Corolla* caeruleo-violacea, diametro 5-6 mm. *Chromosomatum numerus:* 2*n* = 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.

| | *L. greuteri* | *L. florentinum* | *L. corsicum* | *L. articulatum* |
|---|---|---|---|---|
| Leaves [mm] | 4-20 × 2-5 | 5-30 × 3-5 | 10-40 × 3-7 | 15-40 × 1.5-4 |
| 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 |

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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.* – Corse: Calvi, La Revellata, Côte W Baie de Recisa, groupement maritime de bas de falaise (granite mélangé de Quaternaire arénacé) à *Crithmum* et *Limonium,* 11.6.1979, *Lambinon & al. 79/Co/395* (LG, herb. Erben).

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