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Limonium brutium, a new species from S. Italy

Abstract

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Limonium brutium is described and illustrated from granitic rocks near Bagnara (S Italy). This new species is a halophyte taxonomically related to *L. remotispiculum*. It characterizes a new association of the *Crithmo-Limonietea*, named *Limonietum brutii*.

The aim of this paper is the description of a new species, collected in S Calabria during an excursion in the frame of taxonomic research on the flora of southern Italy. Several taxonomic studies concern Italian representatives of the genus *Limonium*, revealing a remarkable complexity in the systematic and phylogenetic relationships among the numerous populations occurring in peninsular Italy. In Calabria (S Italy) up to now only four species of *Limonium* are known: *L. virgatum* (Willd.) Fourr., occurring sporadically along the Ionian coast on rocks and sandy soils; *L. remotispiculum* (Lacaita) Pignatti, limited to calcareous rocks of the N Tyrrhenian coast; *L. calabrum* Brullo, scattered over a few restricted Ionian and Tyrrhenian cliffs localities characterized by siliceous rocks; and *L. lacinium* Arrigoni, growing only along a very short stretch of coast near Crotona (cf. Brullo 1980, Pignatti 1982, Arrigoni 1983).

Limonium brutium Brullo, sp. nova — Fig. 1. — Typus: Italy, Calabria, rupi costiere di Bagnara, 29.8.1991, Brullo & Spampinato s. n. (holotypus: CAT; isotypi: CAT, FI, PAL).

Planta perennis, 15-30 cm alta, caule lignoso, ramoso, 5-10 cm longo, longo tractu foliis vestito. Folia florendi tempore persistentia, 1-3(-3.5) cm longa, (1-)1.5-4(-7) mm lata, oblanceolato-spathulata, apice rotundata, viridia, marginibus valde revolutis, 1-nervia, in petiolum longum attenuata. Scapi erecti, ex basi laxe ramosi, ad nodos fragiles, articulis 1-2.5 cm longis, rectis vel leviter arcuatis, ramis sterilibus paucis, simplicibus vel paulo ramosis. Panicula terminalis, laxa, spicis erectis vel paulo divaricatis, 2.5-6 cm longis. Spiculæ 1-2-floræ, 2-4 per 1 cm. Bractea externa triangularis vel ovato-triangularis, 1.5-2 x 1.5-2 mm, acuta, margine membranaceo lato, in parte centrali coriacea, acumine marginem fere contingente. Bractea media elliptico-ovata, 1.8-2 x 1-1.2 mm, bicarenata, membranacea, apice rotundata. Bractea interna recta, elliptico-ovata, 4-4.2 x 2-2.3 mm, rotundata apice hyalino margine lato, in parte centrali coriacea. Calyx 4-4.5 mm longus, limbo quam tubo longiore, e bractea interna c. 1 mm exsertus, inferne pilosior, lobis rotundatis 0.5-0.6 x 1 mm. Corolla lilacina, c. 6 mm longa.

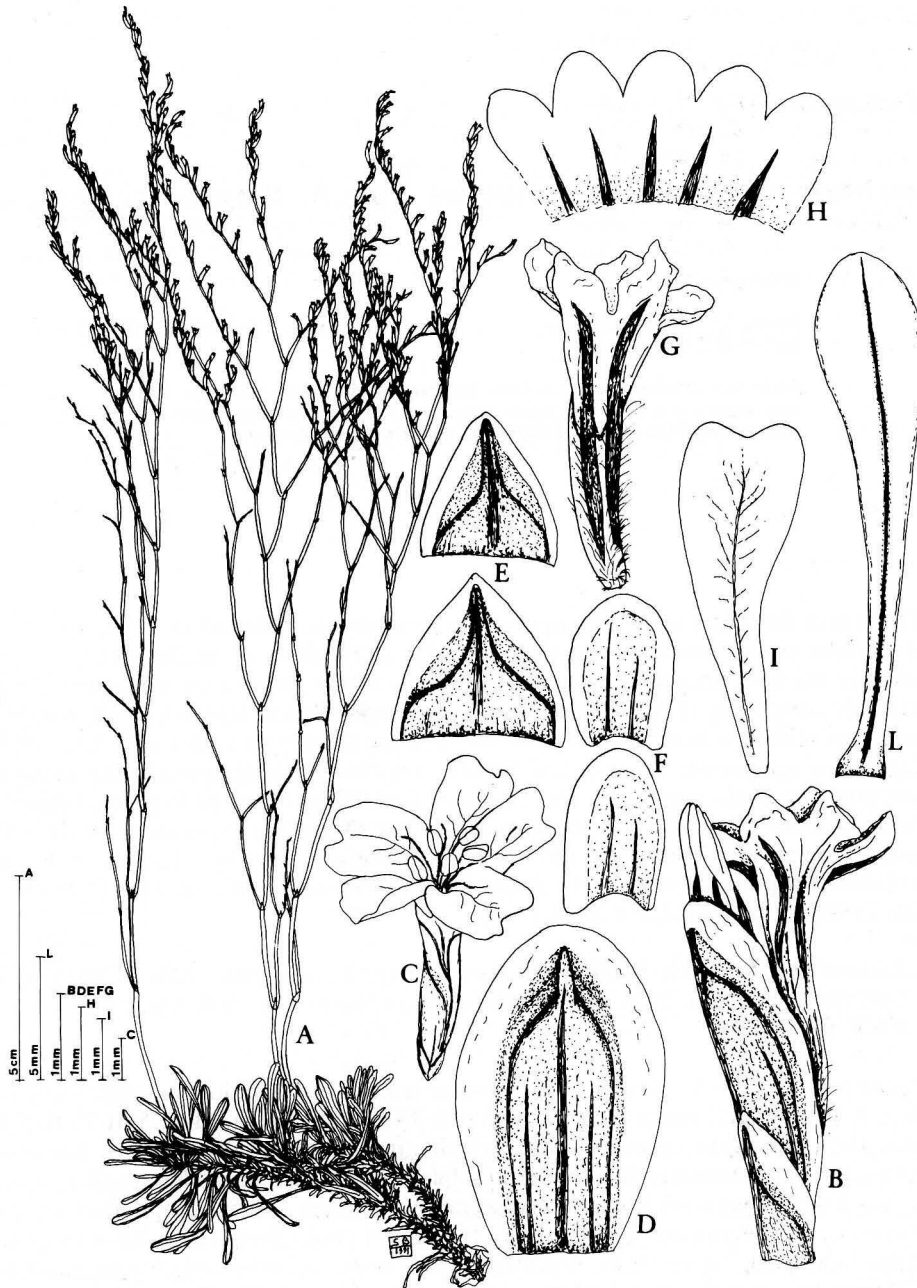


Fig. 1. *Limonium brutium* Brullo. A: habit; B: spikelet; C: flower; D: inner bract; E: outer bract; F: middle bract; G: calyx; H: calyx teeth; I: petal; L: leaf.

Specimina visa. — Italy, Calabria, Bagnara, 30.5.1991, *Scelsi & Spampinato s. n.* (CAT); *ibid.*, rupi costiere di Bagnara, 9.7.1991, *Brullo & Minissale s. n.* (CAT); *ibid.*, 29.8.1991, *Brullo & Spampinato s. n.* (CAT, FI, PAL).

Ecology. — *Limonium brutium* is a very rare species with a punctiform distribution. It occurs along a short stretch of coast near Bagnara (Reggio Calabria), where it grows on granitic rocks near the sea. From the phytosociological point of view, this species differentiates a halophilous community of the *Crithmo-Limonietea* Br.-Bl. 1947 (cf. Table 1), which is here proposed as *Limonietum brutii* ass. nov. (holosyntypus: rel. 5). This association can be considered as vicarious with the *Limonietum calabri*, also occurring in S. Calabria, but on very steep slopes or cliffs (cf. Bartolo & al. 1992).

Table 1. *Limonietum brutii* ass. nova

Number of relevé	1	2	3	4	5
Surface (m ²)	20	20	10	10	10
Cover (%)	60	60	60	60	40
Char. Association					
<i>Limonium brutium</i> Brullo	2	1	2	3	2
Char. <i>Crithmo-Limonietea</i>					
<i>Crithmum maritimum</i> L.	2	2	1	1	2
<i>Lotus cytisoides</i> L.	2	1	2	1	1
<i>Reichardia picroides</i> (L.) Roth var. <i>maritima</i> Fiori	+
Companion species					
<i>Inula crithmoides</i> L.	3	3	3	2	2
<i>Hyoseris radiata</i> L.	+	2	.	+	+
<i>Silene vulgaris</i> (Moench) Garcke	1	1	+	.	+
<i>Capparis spinosa</i> L.	+	+	1	.	+
<i>Catapodium marinum</i> (L.) Hubbard	.	+	.	+	.

Limonium brutium is closely related with *L. remotispiculum* (Lacaita) Pignatti, which has a more northern distribution, growing along the Tyrrhenian coast between Amalfi and Paola (Brullo & al. 1990). Both are similar mainly in their 1-veined leaves, the occurrence of sterile branches, their scapes which are fragile at the nodes, and their inflorescences with well spaced flowers. *L. remotispiculum* differs from *L. brutium*, in particular, in the following characters: scape more developed (up to 40 cm), with very numerous and branched sterile branches; leaves linear-spathulate, 20-40(-50) × 3-7(-9) mm, flat or slightly revolute, rosulate or arranged on woody caudicles 1-2 cm long; spikes divaricately curved, 2-9(-10) cm long, with 2-3 spikelets per cm; inner bract 3-3.5 mm long, with a larger hyaline margin and with the midrib ending in a conspicuous apical mucro; outer bract 1.2 mm long; middle bract 1.5 mm long; calyx 4-4.5 mm long, exceeding the inner bract by c. 2 mm, with c. 0.3-0.4 mm long triangular teeth.

From the ecological point of view, the two species show remarkable differences, too. Although both are halophytes occurring on coastal rocks, *Limonium remotispiculum* occurs prevalently on limestone, while *L. brutium* is a silicicolous species growing on granite.

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