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***Cerastium lacaitae*, sp. nov., and typification of *Cerastium scaranii* (Caryophyllaceae)**

**Abstract**

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The new species includes *Cerastium hirsutum* Ten., *nom. illeg.* A specimen in Munich is designated as type of *Cerastium scaranii* Ten.

*Cerastium scaranii* Ten. *sensu* Buschmann, reported as growing in the Italian peninsula and Sicily, is controversial as to its taxonomic position and delimitation against *C. arvense* L. s.l. Having examined several populations from the north (Tuscany) and south (Campania, Basilicata) of Italy, we came to the conclusion that, as delimited by Buschmann (1938), this is a heterogeneous taxon: some of its populations more properly belong to the *C. arvense* group (*C. scaranii* s. str., from Matese; *C. arvense* var. *etruscum* Fiori, from Tuscany), while others are better treated as distinct species (*C. apuanum* Parl., from Tuscany, Apuan Alps; *C. hirsutum* Ten. non Crantz, from Campania, Mts Lattari, and Sicily, Mt Busambra). Preliminary results have been published elsewhere (Barberis & al. 1994), and a detailed biosystematic revision is in preparation. In the present paper we present our taxonomic and nomenclatural conclusions on *C. scaranii* and *C. hirsutum*.

The first, brief descriptions of these two species date back to 1811 when Tenore published the first three issues of his *Prodromus Florae neapolitanae* - a list of the plants up to that time known and collected inside the boundaries of the kingdom of Naples - conserved mostly in Tenore's herbarium dating back at least to 1808 (Giacomini 1962).

***Cerastium lacaitae*** Barberis, Bechi & Miceli, *sp. nov.* (Fig. 1). - Holotypus: "Campania, Belvedere di M. Faito, Croce dell'Eremita," 1020 m, 20 jun 1991, Barberis, Bechi & La Valva, (GE; iso- FI, NAP, PI).

= *Cerastium hirsutum* Ten., Prodr. Fl. Neapol.: XXVII. 1811 (non Crantz 1766).

Herba perennis, decumbens, 11-40 cm alta, hirsuta, in caulis parte superiore pilis patentibus obsita, inflorescentia plerumque glandulosa. Folia superiora anguste ovata vel ovato-triangularia, 3-6(-9.5) mm lata, 9-25(-41) mm longa; folia ramulorum lateralium obovata vel obovato-spathulata, latitudine a duplo ad decuplum longiora. Inflorescentia 4-14-flora; bractee margine late scariosae, 4.5-8 mm longae. Sepala 2-3 mm lata, 6-10 mm longa; petala glabra 4-5 mm lata, 10-15 mm longa. Pedunculi fructiferi semper recti; capsula recta, raro subincurva, (6.9-)8-10(-11.5) mm longa. Semina physosperma, verrucosa, verrucis conicis obtusis c. 0.05 mm altis, (1-)1.2-1.5(-1.9) mm longa.

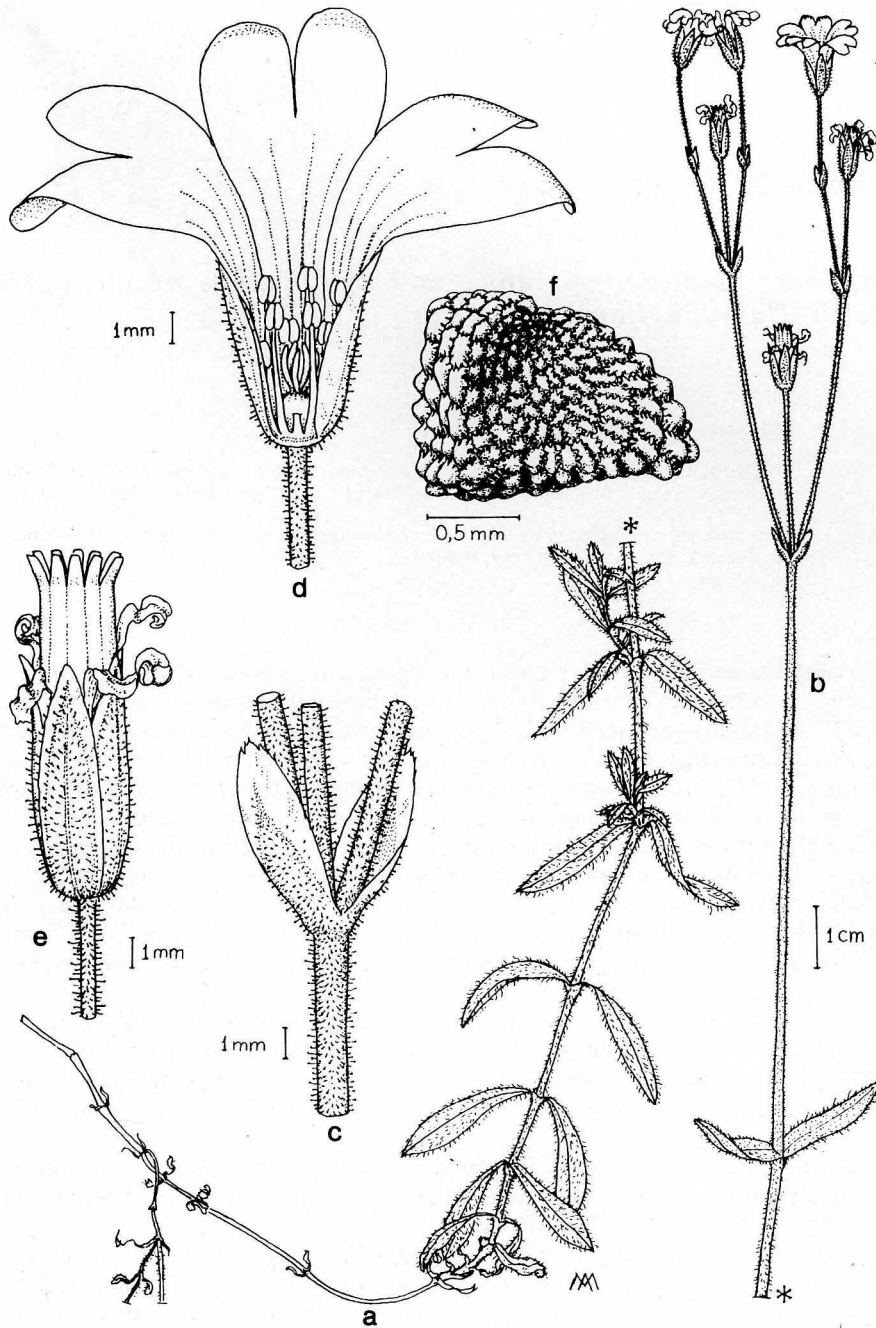


Fig. 1. *Cerastium lacitae* - Mt Faito, 1020 m, 20 jun 1991, Barberis, Bechi & La Valva 874/91 HBP (PI): a, vegetative stem; b, inflorescence; c, lowest inflorescence node, with bracts; d, flower (front sepals and petals removed); e, fruiting calyx with capsule; f, seed.

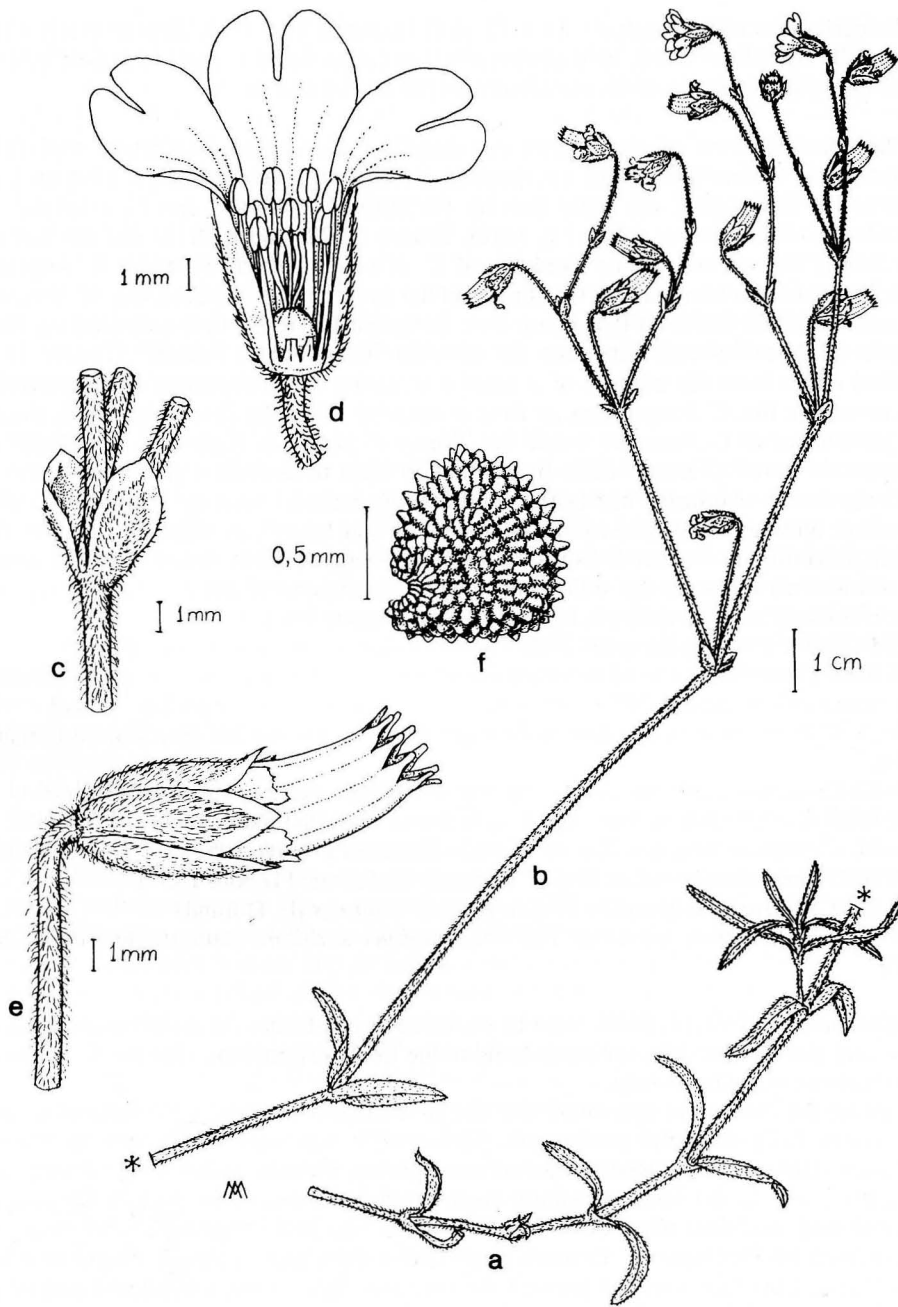


Fig. 2. *Cerastium scaranii* - S. Gregorio Matese, 870 m, 19 Jun 1991, Barberis, Bechi & La Valva 873/91 HBP (PI): a, vegetative stem; b, inflorescence; c, lowest inflorescence node, with bracts; d, flower (front sepals and petals removed); e, fruiting calyx with capsule; f, seed.

Numerus chromatostomatum:  $2n = 72$ . A *C. scaranii* Ten. (Fig. 2) praesertim differt pedunculis fructiferis rectis, indumento saltem in caulis floriferi parte superiore patente, seminibus physospermis, foliis ramulorum lateralium latioribus.

The identification of the "locus classicus" of *Cerastium hirsutum* was fairly complicated. Tenore (1811) did not mention a collecting place in the protologue. Later (Tenore 1815) he gave the same locality for both *C. hirsutum* and *C. scaranii*: "in montibus Samnii". In his following works Tenore (1822, 1830, 1831) did not mention specifically Sannio among the localities of *C. hirsutum*, which were: Mt S. Angelo di Castellammare, La Mongiana in Calabria, and the mountains of the kingdom of Abruzzo.

Lacaita (1912) believed that *Cerastium hirsutum* had been first collected on Mt S. Angelo di Castellammare, and that the mention "in montibus Samnii" (Tenore 1815) resulted either from the mistake of a copyist repeating the provenance of the preceding species on the list, *C. longifolium*, or from a misprint. If so, the first correct indication of the provenance of *C. hirsutum* would be: "Nasce al Monte S. Angelo di Castellammare all'acqua de' porci" (Tenore 1822). In fact no specimen from Sannio (a mountain area SE of Campobasso, Abruzzo) has been found among material seen by Tenore (or indeed anywhere among extant herbarium specimens of that taxon). A search of the Herbaria which, according to Stafleu & Cowan (1986) and Vegter (1988), house Tenore material, has allowed us to locate the following relevant specimens (Tenore's handwriting is in italics, Gussone's in normal type, later additions in square brackets):

- 1) BOLO: *Cerastium hirsutum* Nob. Castellammare [Misit ipse Tenore 1826]
- 2) NAP (three labels): (1) *Cerastium hirsutum* A; (2) [*Cerastium arvense* L.] *hirsutum* [var. major ou une espèce diff. La mongiana]; (3) [*Cerastium hirsutum* Ten. Costa]
- 3) FI: *Cerastium hirsutum* Ten. in *herbidis montosis Tenore 281* [Da Tenore in marzo 1844].
- 4) K: *Cerastium hirsutum* Ten. In *montibus Stabiani* [Tenore misit 9 1836]
- 5) REG: *Cerastium hirsutum* Nob. [... Tenore] Castellammare.
- 6) M: *Cerastium hirsutum* Ten. In *herbidis Stabianis* [Tenor. 1952]
- 7) BM: *Cerastium hirsutum* Ten. In *montosis Stabiarum* [Tenore 1837]
- 8) DWC: *Cerastium hirsutum* Ten. In *pascuis montosis* [E. Durand]
- 9) NCY: *Cerastium hirsutum* Ten. In *montibus stabianis* [autogr. de Tenore M... 1840]

Specimens in NAP, FI, DWC must be excluded as candidates for typification, since the collecting place either does not correspond to the likely original one (Monte S. Angelo di Castellammare), or is missing.

Among the remaining specimens the one in BOLO is the most complete, is in fruit, and agrees fully with the protologue. Moreover it was sent by Tenore to Antonio Bertoloni (Bolognese botanist, author of an important Flora of Italy) who, judging from his letters, was in the habit of asking correspondent botanists for part of the original material they had used when describing new taxa. The BOLO specimen carries a label handwritten by G. Gussone, Tenore's pupil and collaborator since the origin of *Flora napolitana*. This fact does not prevent the specimen from being considered part of the protologue material, since Gussone used to rewrite the labels for his teacher's specimens, copying in beautiful script those hastily jotted down by Tenore which were then usually discarded (La Valva verb. comm.). The term "Nob." instead of "Ten." coming after the name of the species on the label, seems to confirm the hypothesis, that Tenore had this specimen before him when describing the species, although this cannot be proved. We therefore designate it as either the lecto- or neotype of *C. hirsutum* Ten.

However *Cerastium hirsutum* Ten. (1811) is an illegitimate name under Art.53.1 of the Code (Greuter & al. 1994), being a later homonym of *C. hirsutum* Crantz (1766) and it cannot therefore be used. In view of the uncertainty surrounding its typification, of its illegitimacy and of the inadequacy of Tenore's description, which lacks the essential diagnostic features of *C. hirsutum* against *C. scaranii*, (e.g. the position of the ripe capsule on the peduncle), we have preferred to describe a new species based on a modern type, under which *C. hirsutum* Ten. becomes a synonym, rather than to propose a *nomen novum* based on Tenore's type and diagnosis.

We dedicate this species to C. Lacaita (1853-1933), the Anglo-Neapolitan botanist who first grasped the independent systematic status of *Cerastium hirsutum* with regard to *C. arvense* and *C. scaranii* (Lacaita 1912; see Barberis & al. 1994), more than a century after Tenore, during which time both *C. hirsutum* and *C. scaranii* had been misunderstood or considered synonymous.

### *Cerastium scaranii* Ten.

Tenore (1811) did not mention the collecting place of this new species either, in the protologue. Later (Tenore 1815) he likewise added to the description: "Habitat in montibus Samnii". In his following works (Tenore 1822, 1830, 1831) he reported regarding *Cerastium scaranii*: "Nasce nei monti di Abruzzo e del Samnio". Sannio (or Matese) was an area where Giosuè Scarano a correspondent of the Botanic Garden of Naples, resident of Trivento (N of Campobasso) used to collect. Scarano obviously collected the first specimen of this *Cerastium* in the Sannio area, then sent it to Tenore who dedicated the new species to him (see Tenore 1830). The Sannio mountains are therefore the "ditio classica" of *C. scaranii*.

The following relevant specimens have been traced (Tenore's handwriting is in italics, later additions in square brackets):

1) NAP (three labels): (1) *Cerastium Scarani Ten. A strictum arvense 47 Scarani*; (2) *C. Scarani*; (3) [*Cerastium Scarani Tenore !! Loc. Matese (nel Molise) Legit Scarano! Grande 1911*].

2) FI: *Cerastium Scarani Ten. In montibus Samnii Tenore*. [Da Tenore in marzo 1844.]

3) B: *Cerastium Scarani Ten. In pascuis montosis Lucania Ten.*

4) M: *Cerastium Scarani Ten. In Samnio*. [Tenore]

5) BM: *Cerastium Scarani Ten. In Samnii herbidis montosis*. [Tenore 1837]

6) NCY: *Cerastium Scarani Ten. In montibus Samnii*. [aut du Tenore ... 1840]

We excluded the specimens in NAP and in B from candidacy for typification, for the following reasons: the specimen in NAP is incomplete, lacking ripe capsules, and the collecting date and place are wanting on the label; it is impossible to ascertain whether the collecting place (Matese) and collector (Scarano) added by Grande rest on reliable information; the specimen in B disagrees with the protologue in some characters, and does not come from the "ditio classica".

The remaining specimens lack collecting dates but at least some of them may likely be considered as part of the original material. The Tenore's carelessness in labelling has been pointed out before (Giacomini 1962; La Valva verb. comm.).

We here designate the specimen in M as lecto- or neotype of *Cerastium scaranii*. It agrees perfectly with the original description and is the most complete, having ripe capsules. This is most relevant, since fruit characters have been demonstrated to be an essential feature for distinguishing between *C. scaranii* and *C. lacaitae* (Barberis & al. 1994).

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