

Gianmarco Tavilla & Sandro Lanfranco

On the typification of *Crepis pusilla* (Asteraceae)

Abstract

Tavilla, G. & Lanfranco, S.: On the typification of *Crepis pusilla* (Asteraceae). — Fl. Medit. 36: 129-138. 2026. — ISSN: 1120-4052 printed, 2240-4538 online.

The name *Melitella pusilla*, basionym for the accepted *Crepis pusilla*, is lectotypified. The name was originally published within the monotypic new genus *Melitella* basing on plants collected by Sommier on Gozo Island (Maltese Archipelago). Specimens preserved at E, FI, GH, K, LY, MU, MW, VT, P, PI, SLA, VAL, WU, and Z herbaria have been examined. The lectotype is a specimen at FI. An earlier potential typification is dismissed, as the corresponding herbarium sheet bears plants collected on two different dates and is not therefore one specimen. Furthermore, *M. pusilla* var. *laciniata*, lacking any traceable original material, is neotypified with a specimen kept at VAL.

Key words: lectotype, specimen, gathering, nomenclature, Malta, *Melitella*, vascular flora.

Article history: Received 3 February 2026; received in revised form 20 July 2026; accepted 23 July 2026; published 5 August 2026.

Introduction

Crepis pusilla (Sommier) Merxm., one of the 181 *Crepis* taxa occurring in the Mediterranean region (Greuter 2008), occurs in several areas of S Europe and SW Asia, viz. Crete (Zaffran 1967), Cyprus (Hadjikyriakou & al. 2004), Greece (Contrandriopoulos & Zaffran 1969; Dimopolous & al. 2024), Mallorca (Duvigneaud 1973), Turkey (Greuter 2008), and Portugal (Batarda-Fernandes 1972). Its presence in Libya (Borzi & Mattei 1913, Sommier 1912), based on a single specimen in poor condition, has been considered as doubtful by Greuter (2008). Pampanini (1929) had already questioned its origin, based on the soil associated with the specimen, implying that Borzi's sample might, in actual fact, be a cultivated plant from the Botanic Garden of Palermo. Merxmüller (1968), additionally, reported the species from Australia, where it is classified as an 'environmental weed' (White & al. 2018; POWO 2026+). In Greece, *C. pusilla* has also been found on the East Aegean islands and in the Peloponnese, although its presence in Sterea Ellas remains uncertain (Dimopoulos & al. 2024).

The species was originally described by Sommier (1907: 497), who placed it in the unispecific new genus *Melitella* on account of its morphological distinctiveness from all other

members of *Cichorieae*. Sommier himself, and subsequently Zaffran (1967), considered the genus as closely allied to the *Zacintha* group, epitomised by *Zacintha verrucosa* Gaertn.

Merxmüller (1968), based on cultivated material, reassessed *Melitella*. He demonstrated that the characters invoked by Sommier fall within the range of variation known in *Crepis*: the persistent though strongly reduced pappus and the shortly rostrate achenes fit within *Crepis* at least as readily as those of *Zacintha*, and pallid corollas recur sporadically across the genus. Only the glomerulate, rosulate habit remains anomalous, a feature that Merxmüller deemed insufficient to sustain generic separation. The decisive argument was karyological: *Melitella* possesses a gametic chromosome number $n = 5$ and its karyogram is closely congruent with that of the numerous *Crepis* species with this same base number, in particular those of the sections immediately bordering *Zacintha*. On this basis, Merxmüller (1968: 275) effected the combination *Crepis pusilla* (Somm.) Merxm. The conclusion is logical: Babcock (1941) had already assigned *Zacintha* to the genus *Crepis*, as *Crepis* sect. *Zacintha* (Gaertn.) Babc.

The molecular phylogeny of Enke & Gemeinholzer (2008) corroborates this opinion. *Crepis pusilla* and *C. zacintha* constitute a strongly supported dyad deeply embedded within the *Crepis* s. str. clade. Building on these results, the infrageneric revision of Enke (2009) merged *Melitella*, *Crepis* sect. *Zacintha* (Mill.) Babc. (Babcock 1947: 215) and *Crepis* sect. *Hostia* (Moench) Babc. (1947: 214) under the older name *Crepis* sect. *Barkhausia* (Moench) Gaudin. *C. pusilla* is a distinct, acaulescent annual herb with a basal rosette of leaves and central and dense glomerulus of sessile capitula. The entire plant hardens after anthesis and looks strikingly different from its caulescent, branching closest relative, *C. zacintha* (L.) Loisel. Furthermore, *C. zacintha* is characterised by its distinctly two-winged marginal achenes (Talavera & al. 2017).

As part of our studies on the nomenclature of Mediterranean *Asteraceae* species (see e.g., Tavilla & al. 2023; Tavilla & Dellaa 2024; Tavilla & Lanfranco 2024; Tavilla & al. 2025; Tavilla & Ferrer-Gallego 2025), the typification of *Crepis pusilla* is here discussed.

Material and Methods

The protologue (Sommier 1907) has been studied and additional relevant literature (Borg 1909; Merxmüller 1968; Lamond 1975) has been consulted. High-resolution images of herbarium specimens were examined as available on the Internet or obtained courtesy of the respective curators. Herbarium codes follow the standards of Thiers (2025+). All nomenclatural references follow the precepts of the *Madrid Code* (Turland & al. 2025, hereafter cited as “ICN”).

Taxonomy and nomenclature

Melitella Sommier in Nuovo Giorn. Bot. Ital., ser. 2, 14: 496. 1907. – Type: *Melitella pusilla* Sommier

Crepis pusilla (Sommier) Merxm. in Mitt. Bot. Staatssamml. München 7: 275. 1968 ≡ *Melitella pusilla* Sommier in Nuovo Giorn. Bot. Ital., ser. 2, 14: 497. 1907. – Lectotype

- (designated here): “*Melitella pusilla* Somm., Insula Gaulos, hodie Gozo – Regione di Nadur fra U. Bingemma e U. er Rihan, 15 Aprilis 1906”, *Sommier* (FI, barcode FI1989 [excl. capsulis] [Fig. 1]); isolectotypes: FI, barcode FI2020; LY, barcode LY671842).
- = *Melitella pusilla* var. *laciniata* Borg in Bull. Soc. Bot. Ital. 4: 102. 1909. – Neotype (designated here): “*Melitella pusilla* Sommier forma *laciniata*, Ghar Bittija, vicino Casal Dingli, Malta”, 11 April 1913, *Borg*, (VAL, barcode 135529 [image!], Fig. 2).
- *Melitella pusilla* f. *microflorica* Borg in Bull. Soc. Bot. Ital. 4: 102. 1909, nom. inval. (nom. nud.).

Etymology: The generic name *Melitella* is a diminutive of *Melita*, the Latin name of the island of Malta, in reference to the single known origin of the plant.

In the protologue of *Melitella pusilla*, *Sommier* (1907: 498) indicated the habitat as follows: “Hab. in insulae Gaulos (insularum Melitensium altera) litore N. E., inter Uied er Rehan et Uied Bingemma, prope oppidulum “tal Poncia” haud procul ab oppido Nadur. Ibi in solo calcareo-argilloso compacto, inter microphytas gregaria et abunde crescit” [... between Uied ir-Rihan and Uied Bingemma, close to Nadur. On compact calcareous-clayey soil, gregarious and abundant among microphytes]. Furthermore, *Sommier* (l.c.) cited three collecting dates (April 15, 1906, April 21, 1907, and April 28, 1907). These dates correspond to three different gatherings as defined in the ICN (Art. 8.2, footnote: “material collected by the same collector(s) at the same time from a single locality ...”) which, with any of their duplicates (ICN, Art. 8.3, footnote), are therefore syntypes of the name *M. pusilla* (ICN, Art. 9.6), no herbaria having been specified. Moreover, an illustration (tab. XIV; Fig. 3), published at the same time, is also part of the original material for the name (ICN, Art. 9.4(d)).

Lamond (1975) was the first author to designate a type for the name *Melitella pusilla*. She cited as such a sheet in the Edinburgh herbarium (E). In that herbarium there is only one sheet (E413036) with original material (6 individual plants) of *C. pusilla*. It is No. 997 of the widespread exsiccatum of Fiori & al., *Flora Italica Exsiccata*. Its printed label states that the plants were collected on 21 and 28 April 1907. According to the ICN (Art. 9.10 and 7.11) the term “type”, as used by Lamond prior to 2001, would be correctable to “lectotype”, and Lamond’s type statement would normally be considered as a lectotypification. However, the ICN (Art. 8.1) also rules that “a type is ... a single specimen conserved in one herbarium ...”; and further, in Art. 8.2, “For the purpose of typification, a specimen is a gathering, or part of a gathering ...”. Since the herbarium sheet in Edinburgh comprises material from more than one gathering (collected on two different days, rather than “at the same time”) and does not therefore qualify as “a single specimen”, Lamond’s “type” designation has no standing. For the same reason, Art. 9.17 of the ICN (which would have restricted choice of a [second-step] lectotype to an individual plant of the Edinburgh sheet) is not applicable.

It is not possible to tell which of the individual plants was collected on April 21, and which on April 28. Other cases are known of *Sommier* having collected the same species, in the same or in nearby localities, on slightly different dates, later combining some of the material under a new, “synthetic” label (see Brullo & al. 2022 for an example).

The original material traced comprises the original illustration (Fig. 3) and 24 herbarium sheets in E, FI (2×), GH, K(2×), LY (6×), MU, MW, P (4×), PI (2×), SLA, VT, WU, and Z. Since the herbarium material has syntype status, the illustration is not available for

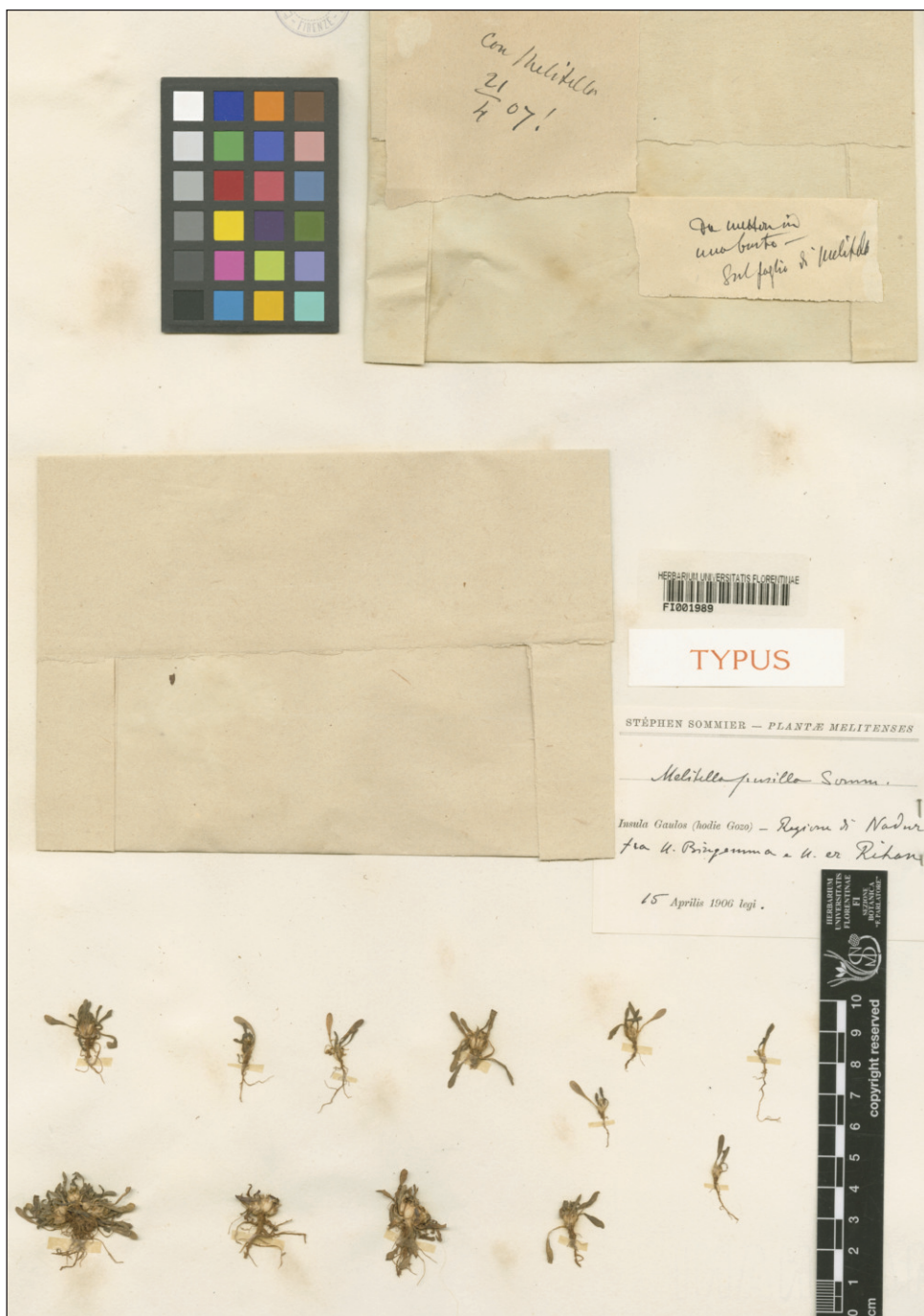


Fig. 1. Lectotype of *Melitella pusilla* Sommier (FI001989). Image provided by Herbarium Universitatis Florentinae (FI), reproduced with permission.



Fig. 2. Neotype of *Melitella pusilla* var. *laciniata* Borg (VAL135529). Image by courtesy of the herbarium VAL, reproduced with permission.

designation as lectotype (ICN, Art. 9.12). Of the 24 herbarium sheets, 20 bear labels of No. 997 of Fiori's *Flora Italica Exsiccata* and, as the plants of each correspond to two different gatherings, they are not eligible as lectotypes either. True, all individual plants on any of them has syntype status and would be eligible; but as none of these plants can be associated with a given collecting date, with such a selection there would be no isolectotypes at all. In one of the Kew sheets (K2040946) the label is undated, and as the collecting may have occurred subsequent to the publication date, its status as original material is in doubt. There remain three sheets, one in Lyon (LY671842) and two in Florence (FI), labelled unequivocally as having been collected on the same date, 15 April 1906. According to Stafleu & Cowan (1985: 737), Sommier's herbarium and types are kept at FI, and by consequence our lectotype choice falls on one of the latter two: FI1989 (Fig. 1), which consists of multiple well-preserved plants fitting the concept of the species currently named *Crepis pusilla* (Sell 19, Talavera & al. 2017). They are mounted on a single sheet, as provided for by the ICN, Art. 8.2. The label accompanying the specimen ("Insula Gaulos, hodie Gozo – Regione di Nadur fra U. Bingemma e U. er Rihan") agrees with the protologue indication. On the same sheet, there are envelopes bearing handwritten labels: "con Melitella, 21.4.[19]07!" and "da mettere in una busta sul foglio di *Melitella*"; the envelope contents are therefore a separate specimen, not forming part of FI1989, but referred to in the protologue by the note "Florentem et fructiferam 21 et 28 Aprilis 1907 iterum legi". Additionally, the Florence herbarium hosts a sheet, lacking a barcode, which bears several mounted plants of *Crepis pusilla* that belong to the FI001989 sheet. It bears a label indicating the locality as "Insula Gaulos (today Gozo)" and the collection date 15 April 1906. This we consider to form part of the lectotype specimen, under Art. 8.3 of the ICN.

The second numbered sheet kept at Florence, FI002020, bears a label similar to that of FI1989. It features a plate with photographs of plants cultivated in the botanical garden of Palermo, as well as an envelope containing specimens of *C. pusilla*. A handwritten label by Sommier, reading: "Melitella pusilla Somm. fl. Melitensi, nova No 941. Insula Gozo Uied Rihan et U. Bingemma, 15 Aprilis 1906 legi", which confirms its isolectotype status.

Borg (1909: 102), in a letter to Sommier, published *Melitella pusilla* var. *laciniata*, characterised by long leaves with laciniate margins and by large capitula. Borg (l.c.) was uncertain as to which of his plants [he also had dwarf individuals (Fig. 4) to which he informally referred as "forma *microflorica*", without describing them] were to be regarded as "typical" *M. pusilla*: "Può darsi però, non sia affatto una varietà, ma il vero tipo, e che la pianta da Lei [Sommier] descritta sia la forma *microflorica* più comune" (= it is probably however, that it [var. *laciniata*] is not a variety, but the real type, and that the plant you [referred to Sommier] described is the more common form *microflorica*").

The fate of any material that Borg may likely have sent to Sommier is unknown; but we traced relevant Borg material, collected subsequently (in 1913), at VAL (barcodes VAL135529 [Fig. 2] and VAL135530 [Fig. 4]), which is representative of the variation mentioned by Borg. the former represents *Melitella pusilla* var. *laciniata* and is here designated as the neotype for that name. The latter, labelled "forma tipica" by Borg, appears to correspond to his concept of a "forma *microflorica*" which, not being a name (ICN, Art. 6.3), has no type.

Our own field observations in Malta, and the study of material growing both *in situ* and *ex situ*, show that Borg's infraspecific variants fall within the natural range of variation of *Crepis pusilla* and are best disregarded for taxonomic purposes (Camilleri & al. 2023, 2024).

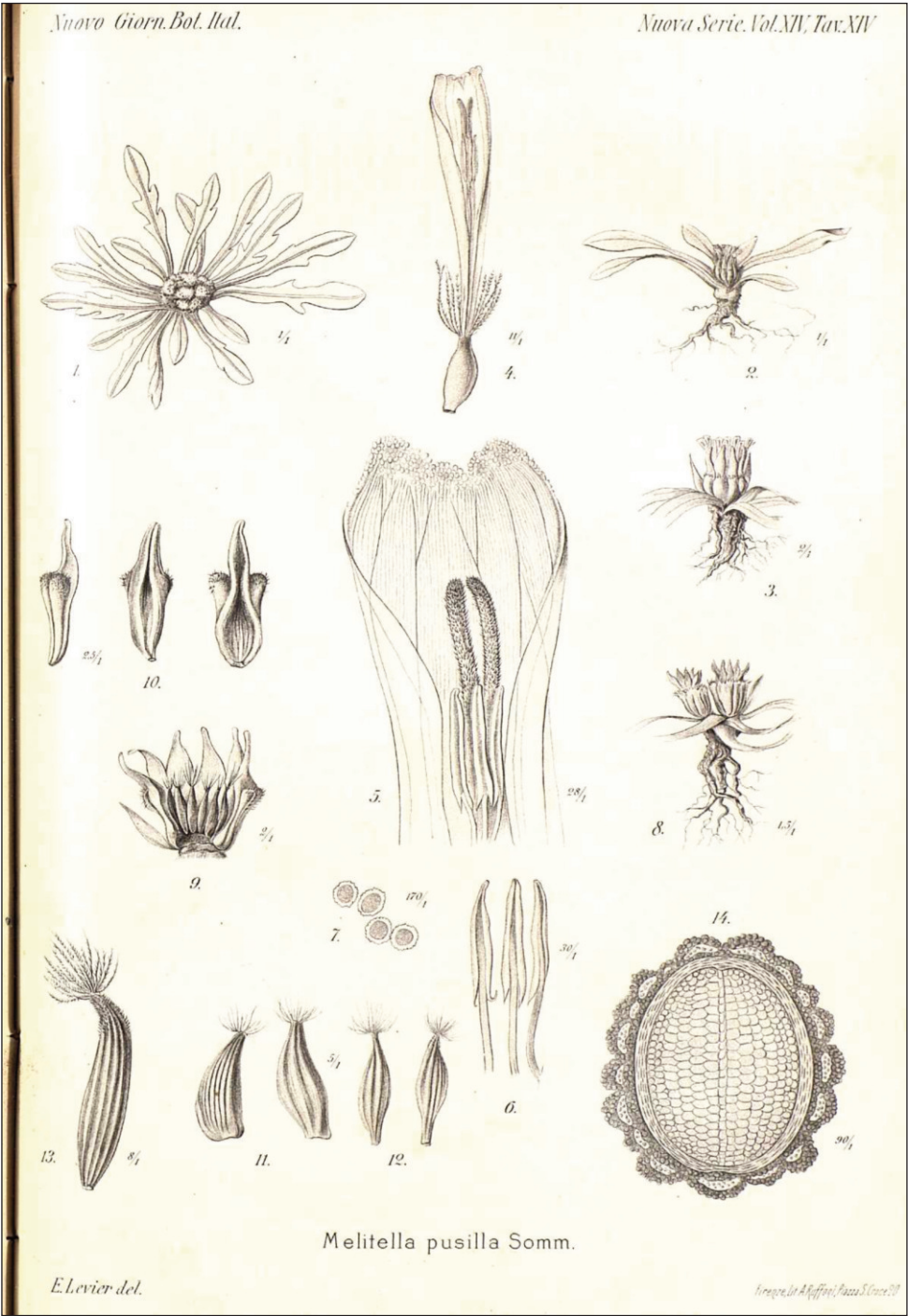


Fig. 3. Original illustration of *Melitella pusilla* Sommer (Sommer 1907).

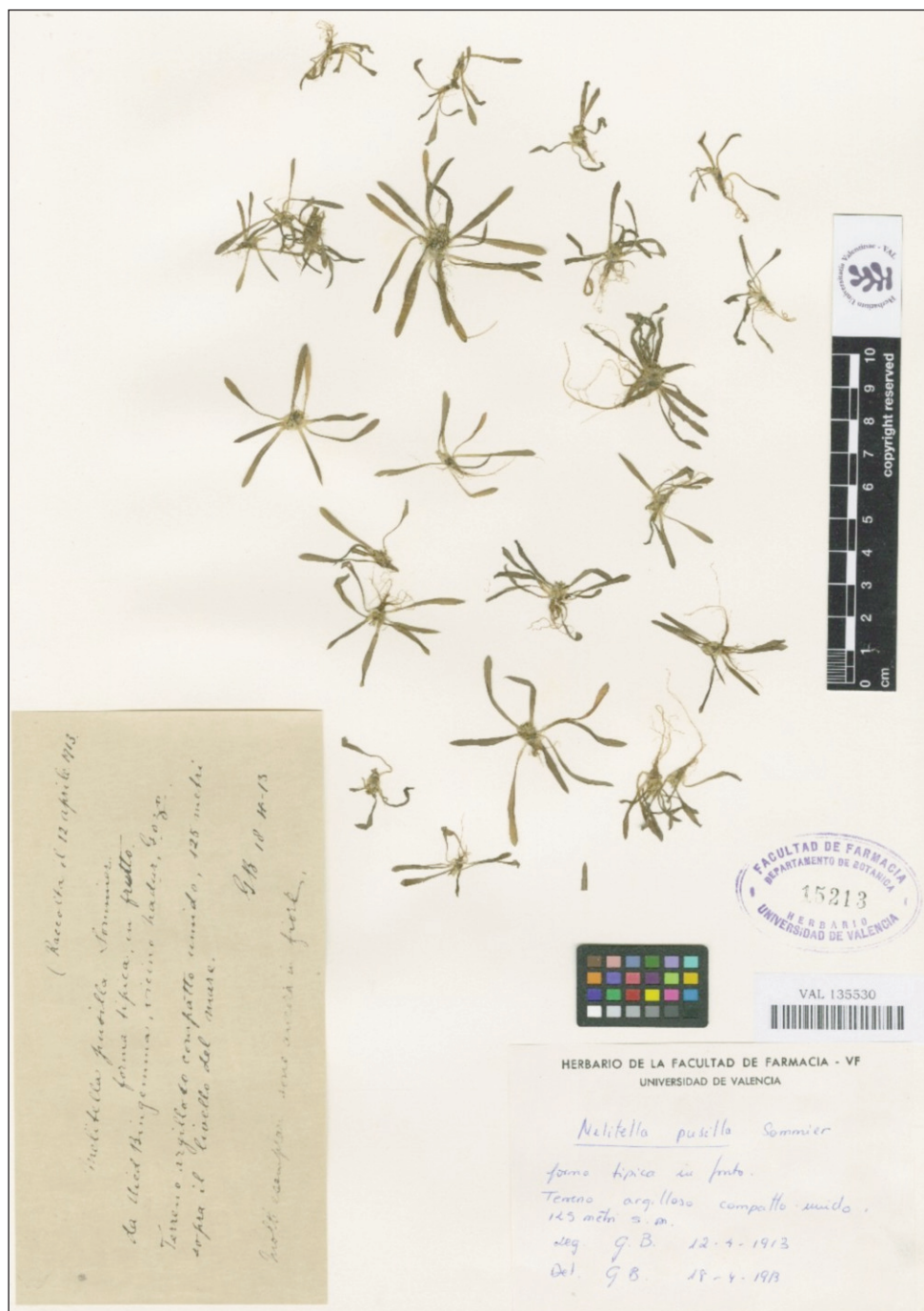


Fig. 4. *Crepis pusilla*: Specimen representing Borg's concept of "forma *microflorica*" (VAL135530). Image by courtesy of the Valencia University herbarium, reproduced with permission.

Acknowledgements

The authors thank Chiara Nepi and Anna Donatelli of the Florence Herbarium for providing specimen images, and the curator of the Herbarium of the Jardí Botànic de la Universitat de València. We also thank Werner Greuter for reviewing the manuscript and contributing to its improvement, and Emanuele Del Guacchio for his comments.

References

- Babcock, E. B. 1941: New species and changes in nomenclature in *Crepis* – Univ. Calif. Publ. Bot. **19**: 399-404.
- 1947: The genus *Crepis*. Part Two: Systematic treatment. – Berkeley.
- Batarda-Fernandes, R. 1972: Uma nova espécie de *Crepis* L. – Bol. Soc. Port. Ci. Nat., ser. 2, **14**: 33-38.
- Borg, J. 1909: Nuove stazioni della *Melitella pusilla* Somm. Nell'isola di Malta. – Bull. Soc. Bot. Ital. **4**: 102.
- Borzi, A. & Mattei, G. E. 1913: Aggiunte alla flora Libica. – Bull. Soc. Bot. Ital. **7-8**: 134-145.
- Brullo, S., Brullo, C., Tavilla, G., Cambria, S., Minissale, P., Sciandrello, S., Giusso del Galdo, G., Siracusa, G. & Del Guacchio, E. 2022: About the occurrence of *Elatine macropoda* and *E. gussonei* (*Elatinaceae*) in Sicily and lectotypification of their names. – Acta Bot. Croat. **81**: 129-139. – <https://doi.org/10.37427/botcro-2022-010>
- Camilleri, L., Roy, R. G., Buhagiar, J. & Lanfranco, S. 2023: Conservation status of *Crepis pusilla* (Sommier) Merxmüller (*Asteraceae*: *Cichorieae*, *Crepidinae*) in Malta. – P. 91 in: Laguna, E., Arizpe, D., Cebrián, A., Seguí, M. & Rubio, A. (eds), 4th Mediterranean Plant Conservation Week “Plant Conservation and Ecosystem Restoration in the Mediterranean”, Book of abstracts. – Valencia.
- , —, — & — 2024: Quantification of the size and distribution of the only known population of *Crepis pusilla* (Sommier) Merxm. (*Asteraceae*, *Cichorieae*) in Malta. – Webbia **79**: 183-189. <https://doi.org/10.36253/jopt-15219>.
- Contrandriopoulos, J. & Zaffran, J. 1969: À propos de quelques espèces remarquables de la flore grecque. – Bull. Soc. Bot. France **116**: 103-111.
- Dimopoulos, P., Raus, T. & Strid, A. (eds) 2024: Flora of Greece Web. Vascular plants of Greece. An annotated checklist. Version VI. – <https://portal.cybertaxonomy.org/flora-greece/intro>.
- Duvigneaud, J. 1973: Complément à la distribution et à l'écologie de *Crepis pusilla* (Sommier) Merxm. (*Asteraceae*). – Lejeunia **71**: 1-8.
- Enke, N. 2009: Contributions towards a revised infrageneric classification of *Crepis* (*Cichorieae*, *Compositae*). – Willdenowia **39**: 229-245. <https://doi.org/10.3372/wi.39.39202>
- & Gemeinholzer, B. 2008: Babcock revisited: New insights into generic delimitation and character evolution in *Crepis* L. (*Compositae*: *Cichorieae*) from ITS and matK sequence data. – Taxon **57**: 756-768. – <https://doi.org/10.1002/tax.573008>.
- Greuter, W. 2008: Med-Checklist. A critical inventory of vascular plants of the circum-mediterranean countries, **2**. – Palermo, Genève & Berlin.
- Hadjikyriakou, G., Makris, C., Christofides, Y. & Alziar, G. 2004: Additions to the flora of Cyprus. – J. Bot. **27**: 31-46.
- Lamond, J. M. 1975: *Crepis* L. – Pp. 814-841 in: Davis, P. H. (ed.), Flora of Turkey and the East Aegean Islands, **5**. – Edinburgh.
- Merxmüller, H. 1968: *Melitella* (*Cichoriaceae*) – Über ein Vorkommen in Australien und die taxonomische Einreihung. – Mitt. Bot. Staatssamml. München **7**: 271-275.
- Pampanini, R. 1929: Sulla presenza della *Melitella pusilla* in Cirenaica. – Nuovo Giorn. Bot. Ital., ser. 2, **36**: 142-144.

- POWO 2026+: Plants of the World Online. – <http://www.plantsoftheworldonline.org> [accessed 12/6/2026].
- Sell, P. D. 1976: *Crepis* L. – Pp. 344-357 in: Tutin, T. G., Heywood, V. H., Burges, N. A., Moore D. M., Valentine, D. A. & Walters, S. M. (eds), *Flora europaea*, **4**. – Cambridge.
- Sommier, S. 1907: Un gioiello della flora maltese: Nuovo genere e nuova specie di composite. – *Nuovo Giorn. Bot. Ital.*, ser. 2, **14**: 496-505.
- Sommier, S. 1912: Sulla *Melitella pusilla* in Cirenaica. – *Bull. Soc. Bot. Ital.* **9**: 313-314.
- Stafleu, F. A. & Cowan, R. S. 1985: *Taxonomic Literature*, Vol V: Sal-Ste. – *Regnum Veg.*, **112**.
- Talavera, M., Sanchez, C. & Talavera, S. 2017: *Crepis* L. – Pp. 899-954 in: Talavera, S., Buirra, A., Quintanar, A., García, M. Á., Talavera, M. & al. (eds), *Flora iberica*, **16(2)**. – Madrid.
- Tavilla, G. & Dellaa, Y. 2024: Lectotypification of the name *Artemisia kabylica* (Asteraceae). – *Novon* **32**: 84-86. – <https://doi.org/10.3417/2024895>.
- , Ferrer-Gallego, P. P. 2025: Nomenclatural notes on *Centaurea reichenbachii* DC. (Asteraceae). – *Kew Bull.* **80**: 1007-1016. – <https://doi.org/10.1007/s12225-025-10304-w>
- & Lanfranco, S. 2024: Neotypification of the name *Centaurea crassifolia* Bertol. (Asteraceae). – *Adansonia* **46**: 157-160. <https://doi.org/10.5252/adansonia2024v46a15>
- , Crespo, M. B. & Ferrer-Gallego, P. P. 2025: Challenges in typification within taxonomically complex groups: the case of the Linnaean name *Centaurea phrygia* (Asteraceae). – *Plants* **14(9)**: 1336. – <https://doi.org/10.3390/plants14091336>
- , Brullo, S., Minissale, P., Cambria, S. & Sennikov, A. N. 2023: Lectotypification of *Anthemis aetnensis* (Asteraceae). – *Novon* **31**: 262-265. – <https://doi.org/10.3417/2023864>
- Thiers, B. M. 2025+: Index herbariorum: A global directory of public herbaria and associated staff. – <http://sweetgum.nybg.org/science/ih/> [accessed 12/6/2026].
- Turland, N. J., Wiersma, J. H., Barrie, F. R., Gandhi, K. N., Gravendyck, J. & al. 2025: International Code of Nomenclature for algae, fungi, and plants (Madrid Code). *Regnum Veg.*, **162**. – Chicago. <https://doi.org/10.7208/chicago/9780226839479.001.0001>
- White, M., Cheal, D., Carr, G. W., Adair, R., Blood, K. & Meagher, D. 2018: Advisory list of environmental weeds in Victoria. – A. Rylah Inst. Environm. Research, Techn. Report Ser., **287**. – Heidelberg & Victoria.
- Zaffran, J. 1967: Découverte du genre *Melitella* Somm. en Crète. – *Compt. Rend. Hebd. Séances Acad. Sci., Ser. D*, **264**: 805-808.

Addresses of the authors:

Gianmarco Tavilla^{1, 2} * (<https://orcid.org/0000-0002-4634-6440>) & Sandro Lanfranco³ (<https://orcid.org/0000-0002-0360-7065>),

¹Faculty of Agricultural, Environmental, and Food Sciences, Free University of Bozen-Bolzano, piazza Università 5, 39100 Bolzano, Italy. E-mail: gianmaco.tavilla@unibz.it

²Competence Center for Sustainability, Free University of Bozen-Bolzano, via Cassa di Risparmio 21, 3910 Bolzano, Italy.

³Department of Biology, Faculty of Science, University of Malta, MSD2080 Msida, Malta. E-mail: sandro.lanfranco@um.edu.mt

* Corresponding author