

WHAT IS THE TYPE OF THE NAME *SCILLA MARITIMA*?

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ABSTRACT: The lectotype of the name *Scilla maritima* L. was designated by Ferrer-Gallego in 2013 and is the specimen, herbarium Adriaan van Royen No. 913.62-327 (L, barcode L 0052807) preserved in the van Royen's collection at Leiden. The "typification" proposed by Mario Martínez-Azorín, Manuel B. Crespo and M. Ángeles Alonso-Vargas in 2022 is superfluous and ineffective according to the International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code). **Keywords:** *Charybdis maritima*; *Drimia maritima*; epitype; lectotype; nomenclature; Linnaeus; *Squilla maritima*; typification; *Urginea maritima*.

RESUMEN: ¿Cuál es el tipo del nombre *Scilla maritima*? El lectotipo del nombre *Scilla maritima* L. fue designado por Ferrer-Gallego en 2013 a partir de un espécimen conservado en herbario Adriaan van Royen nº 913.62-327 (L, código de barras L 0052807) en la colección de van Royen en Leiden. La tipificación recientemente propuesta por M. Martínez-Azorín, M.B. Crespo y M.Á. Alonso-Vargas en 2022 es superflua e inefectiva de acuerdo al Código Internacional de Nomenclatura para algas, hongos, y plantas (Código de Shenzhen). **Palabras clave:** *Charybdis maritima*; *Drimia maritima*; epitipo; lectotipo; nomenclatura; Linneo; *Squilla maritima*; tipificación; *Urginea maritima*.

DISCUSSION

The species *Scilla maritima* L. was described by LINNAEUS (1753: 308). The nomenclatural type of the name was designated by FERRER-GALLEGO (2013: 40) from a specimen preserved in the Adriaan van Royen herbarium at Leiden (herb. Adriaan van Royen No. 913.62-327, with barcode L 0052807). The specimen L 0052807 includes a flowering scape and five leaves. This lectotype designation has been accepted by JARVIS (2016: available at: <https://www.nhm.ac.uk/our-science/data/linnaean-typification/>).

Together Linnaeus and Adriaan van Royen botanized in the Botanic Gardens of Leiden and Amsterdam. The specimen L 0052807 was perhaps collected from plants growing in the Leiden Botanical Garden.

Many sheets in A. van Royen's Herbarium have the plants mounted in the pots and other paraphernalia that were customary in mid-18th Century Dutch collections (as in the sheet L 0052807). On these sheets the text that was used for the Van Royen's *Florae Leydensis Prodrromus* (1740) is written and subsequently cited more or less verbatim by Linnaeus in the *Species Plantarum* (see LINNAEUS, 1753). By consequence the Herbarium contains a great number of types of Linnean names and is therefore one of the major herbaria to be consulted in solving problems in nomenclature and typification. In all, a close social and scientific relationship between Linnaeus and Adriaan van Royen and his collections is evident. This herbarium is one of the few not his own that Linnaeus could study extensively over 3 years of time (see THIJSSÉ & VELDKAMP, 2003).

Recently, MARTÍNEZ-AZORÍN & al. (2022: 5-6) mentioned that the lectotype of *Scilla maritima* designated by FERRER-GALLEGO (2013) is problematic and should be disregarded because leaves and flowers in this species are not coetaneous. According these authors: "It is well-known that taxa in the *Scilla maritima* group are hysteranthous and hence leaves and flowering scapes are never found together

in a single population or plant as it apparently occurs in the voucher L barcode 0052807". In addition, the authors mentioned that "This implies that the selected "lectotype" includes evidently two specimens collected at different times (leaves and the flowering scape). According to Art. 8.2 of the ICN, the voucher L 0052807 cannot therefore be regarded as lectotype of *S. maritima* as designated by Ferrer-Gallego (2013) and should be superseded".

Consequently, MARTÍNEZ-AZORÍN & al. (2022) designated as the "lectotype" of *Scilla maritima* an illustration published by CLUSIUS (1601: 171) "Scillae hispanicae flos & semen" [only the illustration of the bulb with a flowering scape], and also an "epitype" from a material collected near Lisbon (Portugal), with barcode P02166423 (image available at <https://science.mnhn.fr/institution/mnhn/collection/p/item/p02166423>), with several duplicates ("isolectotypes") at P (with barcodes P02166260, 2166417, 1811235, and 1811236).

Unfortunately, at this point there is a not very logical situation. MARTÍNEZ-AZORÍN & al. (2022) indicated that "among the three illustrations in Clusius (l.c.), that of the flowering raceme is designated here as lectotype for *Scilla maritima*, since it shows diagnostic characters allowing separation from other taxa in the aggregate". However, although the illustration "shows diagnostic characters allowing separation from other taxa in the aggregate" the authors designated an epitype, contrary to what is indicated by Art. 9.9 and recommended by Rec. 9B.2 of the ICN ("Authors designating an epitype should state in what way the holotype, lectotype, neotype, or all original material is ambiguous such that epitypification is necessary") (see TURLAND & al., 2018; LENDEMER, 2000a; see also LENDEMER, 2000b).

Regardless of "epitype" designation, the "typification" ("lectotypification" and "epitypification") proposed by MARTÍNEZ-AZORÍN & al. (2022) is superfluous and ineffective because the statement "in the *Scilla maritima* group [...] leaves and flowering scapes are never found together in a single population or plant" is not true.

When growing plants of this species, we know that it is possible for leaves and flowering scapes to coexist. It

is very unlikely that this phenomenon will be observed in the same plant, although examples are not lacking (see <http://herbarivirtual.uib.es/ca/general/344/especie/drimia-maritima-l-stearn>; fig. 1). But it is much more likely that cultivated plants can show the coexistence of flowers with leaves (see figs. 2 and 3).

In the case of the specimen lectotype L 0052807, maybe this material is composed of parts of different plants, perhaps the leaves belong to one plant and the inflorescence to another (or all the material belongs to a single plant); although this cannot be known! If so, nothing prevent it from being treated as a single specimen under the current *Code* (see Art. 8.2 of the *ICN*).

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Figure 1. Image of *Squilla maritima* (L.) Steinh. (≡ *Scilla maritima*; ≡ *Urginea maritima*; ≡ *Charybdis maritima*; ≡ *Drimia maritima*) with leaves and flowers coetaneous in the plant (see that many of the flowers are still in preanthesis). Image courtesy of the the Herbari Virtual del Mediterrani Occidental, reproduced with permission (available at <http://herbarivirtual.uib.es/ca/general/344/especie/drimia-maritima-l-stearn>).

What is the type of *Scilla maritima*?



Figure 2. Plants of *Squilla maritima* (L.) Steinh. cultivated in the CIEF (Quart de Poblet, Valencia, Spain) with leaves and flowers together at the same time. Image: Julia Gegunde García (October 3, 2021).



Figure 3. Plants of *Squilla maritima* (L.) Steinh., with leaves and flowering scapes coetaneous in a single population.