





NOMENCLATURE ARTICLE

Typification of the name *Sison gussonei* (Apiaceae)Emilio Di Gristina,¹  Gianniantonio Domina,^{1,2}  Enrico Bajona¹  & Federico Selvi^{2,3} ¹ Department of Agricultural, Food and Forest Sciences, University of Palermo, Viale delle Scienze bldg. 4, Palermo 90128, Italy² National Biodiversity Future Center (NBFC), Piazza Marina 61, Palermo 90133, Italy³ Department of Agriculture, Food, Environment and Forestry, University of Florence, Piazzale delle Cascine 18, Florence 50144, ItalyAddress for correspondence: Gianniantonio Domina, gianniantonio.domina@unipa.itDOI <https://doi.org/10.1002/tax.13346>

Abstract *Petagnaea* is a monotypic genus restricted to the Nebrodi Mountains in north-eastern Sicily, represented by *P. gussonei*. This species is considered a relict palaeoendemic of the Mediterranean Tertiary flora and is classified as Endangered according to the IUCN criteria. *Petagnaea gussonei* was originally described by Sprengel as *Sison gussonei*, and this name is here neotypified on a Gussone specimen preserved at NAP.

Keywords endemism; Mediterranean flora; nomenclature; relict species; Sicily

■ INTRODUCTION

Petagnaea Caruel is a monotypic genus belonging to the Apiaceae subfamily Saniculoideae (Plunkett & al., 1996). *Petagnaea gussonei* (Spreng.) Rausch. (≡ *P. saniculifolia* Guss., ≡ *Sison gussonei* Spreng.) is the only living representative of this genus known to date. It is a rhizomatous scapose hemicyptophyte endemic to Sicily (Italy), restricted to a few sites of the Nebrodi Mountains (north-eastern Sicily), where it characterizes the hygrophilous vegetation of the streams and rivulets of the hilly and submountain belts, mainly in forest habitats (Gianguzzi & La Mantia, 2004). Its phytogeographical interest is remarkable because *P. gussonei* is considered a palaeoendemic relict species of the ancient Mediterranean Tertiary flora (Wolff, 1913). This species was classified as Endangered (EN) according to the IUCN criteria (Orsenigo & al., 2018) and is included in various species conservation lists. Despite several studies conducted on this relevant species (see, e.g., De Castro & al., 2008, 2013; Bonanno & Veneziano, 2024), a nomenclatural analysis has not yet been carried out. *Petagnaea gussonei* was originally described by Curt Polycarp Joachim Sprengel (1827) as *Sison gussonei*. According to Art. 60.7 of the ICN (Turland & al., 2018), the spelling of the specific epithet originally published as ‘*Gussonii*’ is to be corrected in ‘*gussonei*’. Shortly after, in the same year, Gussone (1827) established the new genus *Petagnia* (*Petagnaea*) and described the same species as *Petagnia saniculifolia* Guss. Our nomenclatural study on this species revealed that the name *Sison gussonei*, which has priority over Gussone’s name, has not yet been typified (Peruzzi & al., 2015). The present paper provides the typification of this name as part of an ongoing research on the names

of vascular plants described from Sicily (e.g., Di Gristina & al., 2012, 2017, 2020, 2021), as well as the project “Italian Loci Classici Census” (Domina & al., 2012; Peruzzi & al., 2015, 2019) and an ongoing research on the Italian endemic forest plants (Selvi & al., 2022).

■ MATERIALS AND METHODS

To trace the original material of the name, we initially consulted the W herbarium, since Sprengel’s herbarium was dismembered and specimens belonging to the Apiaceae family were stored in W (Stafleu & Cowan, 1985). Since the specific epithet ‘*gussonei*’ indicates that the plant was named after Giovanni Gussone, we assumed that Sprengel described the taxon using specimens sent to him by Gussone himself. Based on this hypothesis, we also searched in NAP, where the main set of the Gussone collections are housed. Furthermore, we checked specimens conserved at FI, MPU, P, and PAL, which hold several duplicates from Gussone collections.

■ TYPIIFICATION

In the protologue, Sprengel (1827) provides a brief but detailed diagnosis of the species: “S. caule simpliciuscolo, foliis oppositis sessilibus 3partitis glabris, laciniis oblongis acutis mucronato-dentatis, pedunculis 2fidis, involucre 2phyllo exili, flosculis ♂ pluribus, umbella pauciflora.” However, he did not add any details on the origin of the species (“*Patria?*”).

The research carried out at W allowed us to ascertain that no specimens collected by Sprengel or seen by him are present

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in that herbarium (curator Dr Andreas Berger, pers. comm.). On the other hand, we found several herbarium sheets by Gussone in other herbaria: four in NAP, three in P, two in FI and one in MPU.

In the Gussone herbarium at NAP, one sheet bears a complete specimen and three labels in Gussone's handwriting. The first label reports: "14 Giugno Boschi di Cannata"; the second label gives a short description, and the third is as follows: "1. *Petagnia saniculaefolia* Guss. pr. 1 | p. 311 = et Syn. 1. p. 306 | Majo, Junio h̄ | In frigidissimis rivulis nemorum". Another sheet features four complete specimens and two labels. The first one reports: "*Petagnia saniculaefolia* Guss. | Sicilia | Né boschi di Cannata | prope i ruscelli"; and the second one: "*Petagnia saniculaefolia* Guss. pr. 1. p. 311 | Dec. prod.

4 p. 83 | *Sison gussonii* Spr. Cur. Post. | In sylvis frigidis Sicilia septentrionalis ad rivulis". The third sheet includes one complete specimen and the label "*Petagnia saniculaefolia* Nob. | Boschi di Cannata". The last sheet has two complete specimens, one incomplete fragment of a plant (lacking the rhizome) and one label: "*P. saniculaefolia* 26 Giugno 1838 rivulis".

The three sheets found in P consist of incomplete specimens (lacking the rhizome). The sheet with barcode P03225322 bears the following two labels: (1) "Herb. Mus. Paris [stamped over] Herb. E. Cosson 18" with another stamp "Herbier F. Durand, Donation du Docteur E. Durand, Ancien Herbier E. Cosson" (in capital letters) and (2) "*Petagnia saniculaefolia* | Bosc[h]i di Floresta | Sicilia | Gussone - 1846";



Fig. 1. Neotype of the name *Sison gussonei* (NAP!); published with permission.

P03225325 has two labels: “Herb. Mus. Paris | Herbarium E. Drake” (in capital letters) and “*Petagnia saniculaefolia* Guss.! | Sicilia | Guss.”; P03225326 has two labels: “Herb. Mus. Paris | Herbarium donné par M. le D^r Grenier, en 1875” and “*Petagnia saniculaefolia* Guss.! | Sicilia | Gussone 1859”.

The two sheets preserved in FI comprise a total of three incomplete specimens (lacking the rhizome). The specimens FI001666 and FI001667 are mounted on the same sheet; FI001666 has one label saying: “*Petagnia saniculaefolia* | Guss. | Sicilia | Da Gussone in 8 Dic. 1845”; FI001667 has also one label: “*Petagnia saniculaefolia* | Guss. | Maniaci | Erb. O. R. B. di Pal. | Da Tineo in Sett. 1843”. The other sheet bears only one specimen, barcode FI001668, with the following label: “Da Parlato in Sett. 1847 | *Petagnia saniculaefolia* | Herbarium Cl. Gussone | Boschi di | Floresta”.

The only sheet conserved in MPU, barcode MPU1276283, includes five incomplete fragments of the plant (lacking the rhizome) and three labels. The first one reports: “*Petagnia saniculaefolia* | Cf. H. Bn. h. pl. VII. 149. | f. 179–180. [handwritten] | Herbarium du D^r Lesourd École Nat. d’Agriculture de Montpellier *Duplicata* [printed, partly in capital letters]”; the second, in Agostino Todaro’s handwriting, reports: “Boccadifalco li 26 Agosto 1841”; the third: “École Nat. d’Agriculture de Montpellier *Duplicata* [printed, partly in capital letters] | *Petagnia saniculaefolia* Guss. fl. sic. | pr. 1. p. 311. et Syn. 1. p. 306 | In frigidis rivulis nemorum Siciliae septentrionalis; Boschi di Cannata in | Valdemone | Gussone [handwritten]”.

In summary, no original Sprengel material was traced and the geographic origin of this material is not mentioned in the protologue. However, it is most likely that the description of the species was based on specimens sent to Sprengel by Gussone, who exchanged material with many European botanists. On these grounds, we designate a neotype selected from Gussone’s specimens. The third specimen in NAP mentioned above is the most complete and best preserved of the specimens examined, and the label bears no references to published names, only “Nob.,” indicating that it was collected by Gussone. As there is no indication of the collection date of this specimen (Fig. 1) it is here prudentially proposed to serve as neotype for this name, in accordance with Art. 9.16 of the *ICN* (Turland & al., 2018).

Sison gussonei Spreng., *Syst. Veg.* 4(2): 118. Jan–Jun 1827 ≡ *Petagnia saniculifolia* Guss., *Fl. Sicul. Prodr.* 1: 311. Oct–Dec 1827 ≡ *Petagnaena gussonei* (Spreng.) Rauschert in *Taxon* 31: 563. 1982 – **Neotype (designated here):** “*Petagnia saniculaefolia* Nob. | Boschi di Cannata” [manu Gussone] (NAP! [Gussone, Herbarium Siculum]). The neotype is illustrated in Fig. 1.

■ AUTHOR CONTRIBUTIONS

Design of the research: GD, FS; Performance of the research: EDG, EB; Data analysis, collection, or interpretation: EDG, GD,

EB, FS; Writing of the manuscript – First draft: EDG, GD, EB; Review: FS.

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