



Typification of two species names of *Potamogeton* (Potamogetonaceae)

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Two species names of the genus *Potamogeton* Linnaeus (1753: 126) are here typified: *P. panormitanus* Bivona-Bernardi in Bivona (1838: 6, sub *P. panormitanum*) and *P. tuberculatus* Tenore & Gussone in Tenore (1842: 4, sub *P. tuberculatum*). *Potamogeton panormitanus* is considered as a synonym of *P. pusillus* Linnaeus (1753: 127) (see Parlatore, 1860; Preston 1995; Wiegleb & Kaplan 1998; Garcia-Murillo 2010) and *P. tuberculatus* as a synonym of *P. trichoides* Chamisso & Schlechtendal (1827: 175) (see Parlatore, 1860; Wiegleb & Kaplan 1998; Garcia-Murillo 2010).

Potamogeton tuberculatus Tenore & Gussone in Tenore (1842: 4)

Lectotype (designated here):—ITALY. Laghi del Vulture, 14 Luglio 1838, [*M. Tenore et G. Gussone*], s. n. (NAP!, collection Gussone General).

Isolectotype:—ITALY. Laghi del Vulture, 14 Luglio 1838, [*M. Tenore et G. Gussone*], s. n. (NAP! collection Gussone General).

Additional specimens:

In Lacubus Montis Vulturis, s.d., *Tenore*, s. n. (FI! sub *P. tuberculatum*).

Laghi del Vulture, Viaggio al Vulture, 1838, [*M. Tenore et G. Gussone*] (NAP!, collection Tenore, sub *P. verrucosum* Ten. et Guss. [*nom. ined.*]).

The specimen here designated as lectotype has two labels; one is the “representation label” of Gussone (La Valva, 1993), put by the author in the first sheet of a series of specimens representing every taxonomic entities in his collections (General and Sicily). In this label the bibliographic reference to the protologue is reported (Tenore, 1842) together with the note “viaggi al Vulture”. Tenore and Gussone explored Monte Vulture in 1838 (Tenore & Gussone, 1842; 1843) and investigated in particular the Vulture lakes in July (Pasquale, 1871). In the second label of the sheet, data and localities of collections are reported.

As concerning the protologue, in the same year 1842 an offprint of the “*Ragguaglio delle peregrinazioni effettuate nella state del 1838 dai Signori Gussone e Tenore....*” was printed by the “Reale Stamperia” of Naples (see Giacomini, 1962). Anyway, none of the two authors made any mention of this work and, on the contrary, Gussone (1843, 1845) reported Tenore & Gussone (1843) as protologue’s reference, which is posterior to Tenore (1842). According to Parlatore (1860), the name *P. tuberculatus* must be thus considered as published by Tenore (1842).

The specimen considered as isolectotype has only one label, with the same text as the above-cited specimen; it shows a handwriting that can be ascribed to Pasquale, a Neapolitan botanist student and disciple of Gussone, who frequently added date and place of gathering in the duplicates of Gussone Collections (Santangelo *et al.* 2005). A third specimen is stored in FI and its label is signed by Tenore. However, in the label the collection date is lacking, as the only indicated date refers to the donation of the specimen to the Herbarium Centrale Italicum by Tenore (May 1844). The absence of the date of collection makes it preferable not to consider this specimen as a type, although it may be considered as “original material” (McNeill *et al.* 2012) used by the authors for the species description.

A fourth specimen is stored in the collection Tenore of NAP under the name *Potamogeton verrucosum* Ten. et

Guss. (*nom. ined.*); two different handwritings appear clearly in the label; the first one, with the genus name, the patronymic, the collection site and the date belongs to Tenore; the specific epithet (*verrucosum*) and the writing “Viaggio al Vulture” belong to another writer, probably a Tenore’s collaborator. It can be conceived as an error in the label compilation as the name *Potamogeton verrucosum* Ten. et Guss. has never appeared in any Italian flora.

The specimen in question could therefore have been part of the original material collected by Tenore and Gussone during their exploration to the Vulture but it should have been subsequently stored by Tenore only with the generic name *Potamogeton*. All the four specimens belong to the species now called *P. trichoides*.

Potamogeton panormitanus Bivona-Bernardi in Bivona (1838: 6)

Lectotype (designated here):—ITALY. Gurgo di Rebuttone, Maggio 1836, [Antonino Bivona-Bernardi], *s. n.* (FI! sub *P. pusillum*).

Syntype:—ITALY. Cataniae, *s. d.*, [Antonino Bivona-Bernardi], *s. n.* (NAP!, collection Gussone Sicily, sub *P. panormitanum*).

Additional specimen

Pal. al f. Oreto presso il Ponte della Grazia, *s. d.*, *s. coll.*, *s. n.* (NAP!, collection Gussone Sicily, sub *P. pusillum*).

The specimen designated here as lectotype is preserved in FI and its dating enables it to have been collected by Bivona-Bernardi, who died in 1837 (Raimondo & Not 1987). Even if the Bivona-Bernardi’s signature is not present, in the label a note written by Parlato certifies the origin of the specimen. The original identification on the herbarium label by Bivona-Bernardi as *P. pusillus* probably reflects his early view. Later he decided to describe this plant as a new species named *P. panormitanus* (sub *P. panormitanum*). This change of view was not reflected with new identification on the herbarium label because he died soon after. Establishing the new species was completed by his son Andrea Bivona (1838), who published several botanical works that his father had been unable to complete (Raimondo & Not 1987).

The specimen here identified as syntype is preserved in the collection named Gussone Sicily in NAP. In the original label, Loreto Grande, curator of *Herbarium Neapolitanum* early in 1900s, states that Bivona-Bernardi himself collected the plant (sub “legit Bivona”).

The interpretation of the third specimen cited is more uncertain. In this case, the collector is lacking and the only reference concerning the collection site is not sufficient to clarify the matter, as many botanists used to collect plants in that site (Gussone 1843; Parlato 1860). It is therefore preferable to consider this specimen only as “probable syntype”.

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