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Taxonomic notes on *Scorzonera serrulata*, a misappreciated species of the Libyan flora

Abstract

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Scorzonera serrulata Viv. is a distinct species, endemic to N Cyrenaica, closely related to *S. neapolitana* Grande, confined to S. Italy. The taxonomy and nomenclature are discussed.

In the course of taxonomic studies on the flora of N Cyrenaica (Libya), a nomenclatural question regarding a species of *Scorzonera* (*Asteraceae*) presented itself, as already mentioned by Guglielmo (1984).

The species was described and illustrated for the first time by Viviani (1824) as *Scorzonera serrulata*, based on specimen collected by Della Cella "in pratis Cyrenaicae". Two years later, Sprengel (1826) treated Viviani's name in synonymy under a newly described species, said to occur in Calabria (S Italy) and Cyrenaica, for which he proposed the illegitimate new name *S. trachysperma* Günther ex Spreng.

Later that same year, Gussone (1826) used the name pubblished by Sprengel for S Italian populations only, while referring to the Cyrenaica plants as *Scorzonera serrulata* and emphasizing that the two were different species.

Cosson (1865), when revising Viviani's herbarium of the Libyan flora (GE), considered *Scorzonera serrulata* to be a synonym of *S. undulata* Vahl. Béguinot & Vaccari (1912) deemed that *S. serrulata* was closely related to *S. undulata*, treating it as a variety of the latter: *S. undulata* var. *serrulata* (Viv.) Bég. & Vacc. The same opinion was expressed by Illario (1938), who examined Viviani's type specimen.

Other authors again disagreed and attributed *S. serrulata* to the cycle of *S. hispanica* L. Thus it was referred to as *S. hispanica* var. *trachysperma* by Pampanini (1931), or *S. hispanica* subsp. *trachysperma* by Maire & Weiller (1939); finally Boulos (1979) identified it with *S. hispanica* L. s. str., and Alavi (1983) treted it as a synonym of *S. undulata*.

Deciding between these different opinions has become more difficult due to the loss of the Viviani's herbarium, burnt during the last world war; Viviani's (1824: t. 17, f. 4) original drawing of *Scorzonera serrulata* must now be accepted as the nomenclatural type under Art. 7.3 of the *Code* (Greuter & al. 1988). This figure is a good match of the plants previously identified as *S. trachysperma* or "*S. hispanica*" but not at all of true *S. undulata*.

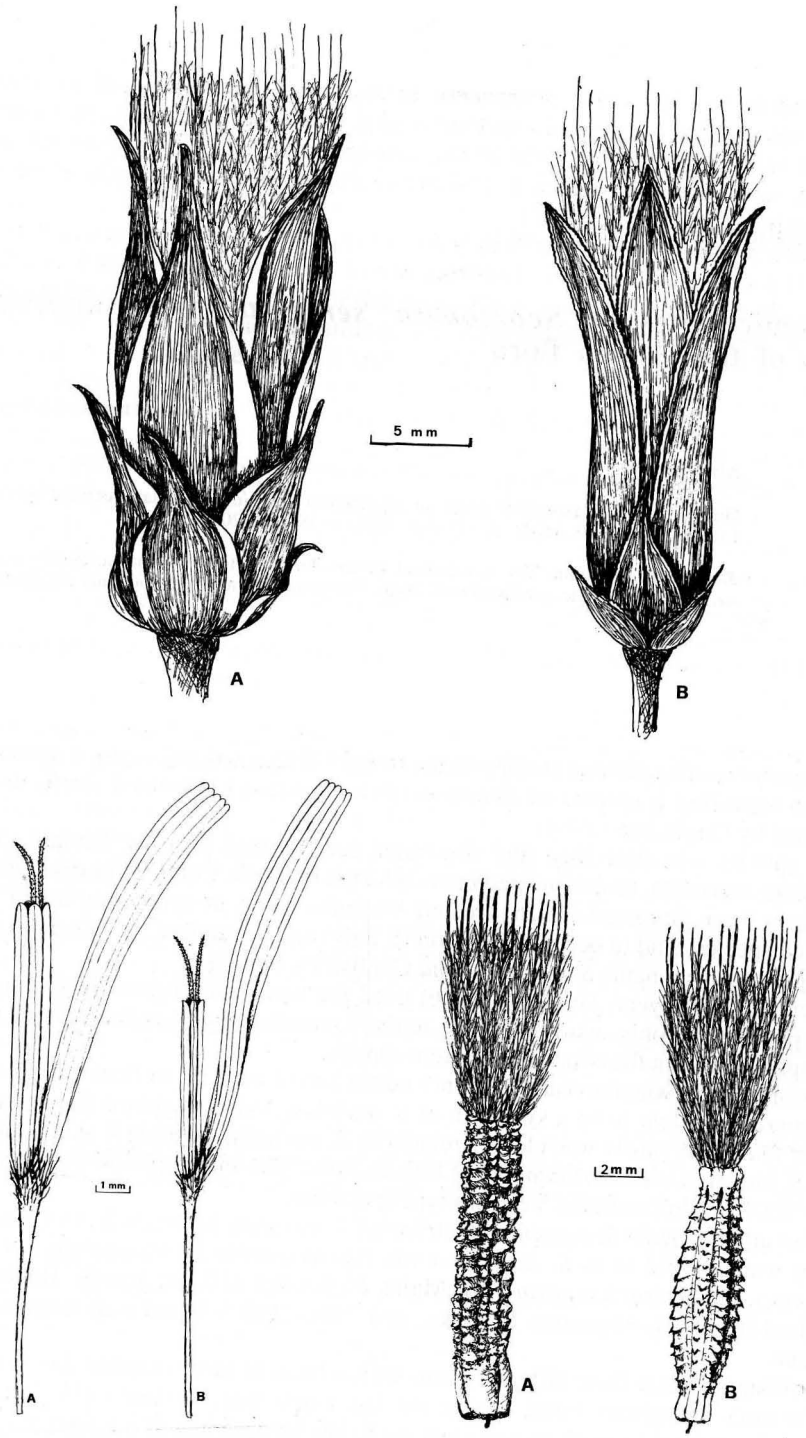

Fig. 1. Morphologic characters of *Scorzonera neapolitana* (**A**) and *Scorzonera serrulata* (**B**): 1, capitula; 2, florets; 3, cypselas.

One reason for considering *Scorzonera serrulata* as a synonym of *S. undulata* was probably the fact that in Viviani's protologue the corolla is described as being of violet colour. In reality the corollais yellow, but it is often tinged with violet on the outside, which may well have deceived Viviani who observed only the outer surface of the flowers in the pressed specimen.

The herbarium specimens from S Italy and those from Cyrenaica, previously identified by various authors as *Scorzonera trachysperma*, show remarkable differences, regarding above all the morphology of capitula, florets and cypselas, as already mentioned by Gussone (1826). In particular, the Cyrenaica plants have apiculate involucral bracts (5 outer and 5 inner) with an incospicous, undulate, scarious margin (Fig. 1, B1), 7-8 mm long anthers, forming a tube of c. 1 mm in diameter (Fig. 1, B2), and fusiform, c. 1 cm long cypselas, with spinulose-scabrid ribs, attenuate towards both ends into a smooth part (hollow at the basis) c. 1 mm long (Fig. 1, B3); while the Italian plants have wider acuminate involucral bracts (5-8 outer and 7-8 inner), with a wide and flat scarious margin (Fig. 1, A), 4-5.5 mm long anthers, forming a tube of 0.5 mm in diameter (Fig. 1, A2), and sub-cylindrical, c. 13 mm long cypselas, which are markedly tuberculate-rugose, with a c. 3 mm long smooth portion towards the hollow basis (Fig. 1, A3).

These differences allow to clearly differentiate the two species, which both belong to the cycle of *S. hispanica*.

From the nomenclatural point of view, the correct name of the species occurring in Cyrenaica is:

Scorzonera serrulata Viv., Fl. Libyc. Spec.: 49. 1824 ≡ *S. trachysperma* Günther ex Spreng., Syst. Veg. 3: 666. 1826, nom. illeg. — **Ind. loc.**: In pratis Cyrenaicae. — **Typus**: The illustration in Viviani, Fl. Libyc. Spec.: t. 17, f. 4. 1824.

The S Italian plants must be known by the name proposed by Grande (1920) to replace Gussone's illegitimate later homonym:

Scorzonera neapolitana Grande, Nuovo Giorn. Bot. Ital., ser. 2, 27: 239. 1920 ≡ *S. trachysperma* Guss., Pl. Rar.: 319 t. 53. 1826. [non Sprengel 1826] ≡ *S. hispanica* var. *trachysperma* Fiori, Nuova Fl. Anal. Ital. 2: 810. 1928. — **Ind. loc.**: Capo Brazzano, Capo Colonna, Crotone. — **Lectotypus**: Calabria al Capo Brazzano sul Jonio, 9.5.1824, *Gussone* (NAP).

The two species differ in their ecology, too. *Scorzonera serrulata*, in Cyrenaica, occurs in garigues of *Sarcopoterium spinosum* (L.) Spach and *Genista acanthoclada* DC., while in S Italy *S. serrulata* is confined to *Lygeum spartum* L. communities on clayey ground.

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