History of the name *Pinguicula hirtiflora* Ten. (Lentibulariaceae), or on the uncertainties of Michele Tenore about butterworts

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The Central Mediterranean unit *Pinguicula crystallina* Sibth. et Smith subsp. *hirtiflora* (Ten.) A. Strid was recently the object of a survey (Peruzzi *et al.* 2004). Interestingly, this plant is known as the most variable in the genus *Pinguicula* (commonly called butterworts), at least from a karyological point of view (Peruzzi 2004). It is noteworthy to say that recent investigations on its seed morphology and anatomy were also carried out (Degtjareva *et al.* 2004), supporting the (specific) distinction of *P. hirtiflora sensu stricto* from *P. crystallina*.

This short note aims to put in evidence and discuss the singular and controversial history of the name *Pinguicula hirtiflora* Ten. This name was created and described by Michele Tenore (1780-1861) in the "*Prodromus*" placed at the beginning of the first volume of his monumental "*Flora Napolitana*", without any indication of herbarium specimens and/or type localities (Tenore, 1811: 6 "VI"; "Pinguicula hirtiflora. *Nectario subulato erecto, flore breviore, labio superiore patente profunde bilobo, inferiore tripartito, fauce pilis hirta. Nobis*"). It is useful to note that Napoli's Kingdom, in nineteenth century, covered approximately one half of what since is now Italy (i.e. from Abruzzo to Calabria) and Tenore's flora was devoted to all this ample territory. In this work in 1811, he recognised only one butterwort species. Four years later, Tenore (1815) removed this species from his Flora; the reason for this choice can be found in the following volume (Tenore 1824) — the author had concluded that his butterworts were identifiable with *P. grandiflora* Lam., which had been described in 1789.

Consequently, the great botanist recognised both *P. grandiflora* Lam. from Campania (presently the *locus classicus* of *P. hirtiflora*) and his "exhumed" *P. hirtiflora* Ten. (Tenore 1824). In that volume, this latter name is applied to the plants from Abruzzo ("*Nasce alla Maiella, presso le scaturigini de' ruscelli, all'Ospizio, alla Valle dell'Orfenta; fiorisce in luglio; perenne*"), and it is considered as possibly synonymic with *P. longifolia* Ram. ex DC. (a name described in 1805 which would have had priority if the current nomenclatural rules were in effect at that time). Also the description is slightly different ("*Foliis oblongo-lanceolatis obtusis in petiolis longe attenuatis; scapo glabro; corollae labio superiore bilobo, inferiore trilobo duplo longiore, fauce, pilis erectis glandulosis albis, villosa; nectario incurvo acuto corolla breviore*"), but it consistently points out the same characters as important: spur features and hairiness of the flower's mouth; he notes also that this plant should have glabrous scapes. However, it must be said that Tenore observes: "*...del resto considero la mia pianta come suscettibile di migliore esame, e solo mi duole di non averne potuto dare la figura, perché da' saggi secchi essa non può rilevarsi; né mi è stato possibile ritornare negli stessi luoghi ove la raccolsi per la prima volta nel 1806.*" ("...however, I consider my plant as worthy of better examination, and I am sorry not to have produced an iconography (Note: He would eventually do it in 1830 with the right plant!), because from herbarium specimens it cannot be studied well; I have not even been able to return to the same places where I collected it for the first time in 1806.") So, it is very likely that Tenore based his original description of *Pinguicula hirtiflora* both on plants from Abruzzo and Campania, based only on the spur length and hairiness of the corolla mouth (the term "*hirtiflora*" means indeed "with hairy-flowers").

In the fourth volume of "*Flora Napolitana*", Tenore (1830a) returned to this matter, always recognising *P. grandiflora* and *P. hirtiflora*, but (apparently in error) exchanging the place of the localities so *P. hirtiflora* of the previous volume ("*excl. locis natalibus ad praecedentem [*P. grandiflora*] spectantibus*"), became the plant from Campania (instead of from Abruzzo), "*Ad fontium scaturigines montium Stabiarum et Principatus Citerioris: all'acqua Santa di Monte S. Angelo di Castellammare, all'Avvocatella, alla Molina presso la Cava, e presso la Trinità di Cava*". Also the descriptions were changed and the author, now aware that many butterworts have a hairy corolla mouth, notes also the peculiar, two-lobed form of the petals in *P. hirtiflora* ("*Calcare subulato corollam subaequante, laciniis subaequalibus subrotundis profunde bilobis, fauce villosa, germine staminibus superincumbente*"); the author says also that the plant can indifferently have glabrous or hairy upper scape.

Finally convinced of his own opinions, Tenore (1830b) felt confident enough to write a brief dissertation on the differences separating *P. hirtiflora* from other butterwort species such as *P. vulgaris* L. and *P. alpina* L.

The history above could leave you with a bad impression of Michele Tenore as botanist; he was instead a great one (and many other cases showed it), but evidently not so confident with the genus *Pinguicula*!

To clear up the confusion, Peruzzi *et al.* (2004) formally lectotypified the name *Pinguicula hirtiflora* with an herbarium specimen from Campania ("*M.te della Cava di Castellammare, all'acqua Santa, s.d., Tenore*, NAP"), acknowledging its current application (e.g. Casper 1962, 1966). Finally, it is worth noting that Tenore, when quoting Abruzzo, (mis-)applied the name *P. hirtiflora* to the plants known today as *P. fiorii* Tammaro et Pace, a stenoendemic species described from Maiella at the end of twentieth century (Tammaro & Pace 1987).

References

Casper, S.J. 1962. Revision der Gattung *Pinguicula* in Eurasien. Feddes Repert. 66(1-2): 1-148.

Casper, S.J. 1966. Monographie der gattung *Pinguicula* L. Bibliotheca Botanica 127/128: 1-209.

Degtjareva, G., J. Casper, F. Hellwig, and D. Sokoloff. 2004. Seed morphology in the genus *Pinguicula* (Lentibulariaceae) and its relation to taxonomy and phylogeny. Bot. Jahrb. Syst. 125: 431-452.

Peruzzi, L. 2004. Contribution to the cytotaxonomical knowledge of the genus *Pinguicula* L. (Lentibulariaceae): a synthesis of karyological data, Carniv. Pl. Newslett. 33: 103-110.

Peruzzi, L., N.G. Passalacqua, and G. Cesca. 2004. *Pinguicula crystallina* Sibth. et Smith subsp. *hirtiflora* (Ten.) Strid (Lentibulariaceae) in Calabria (Southern Italy). Cytotaxonomical study and ex situ conservation in the Botanic Garden of Calabria University. Carniv. Pl. Newslett. 33: 68-74.

Tammaro, F., and L. Pace. 1987. Il genere *Pinguicula* (Lentibulariaceae) in Italia centrale ed istituzione di una nuova specie *P. fiorii* Tamm. et Pace. Inform. Bot. Ital. 19: 429-436.

Tenore, M. 1811. Flora Napolitana 1 (Ad Florae Neapolitanae Prodromus): VI. Napoli.

Tenore, M. 1815. Flora Napolitana 1 (Emendanda et Addenda): 322. Napoli.

Tenore, M. 1824. Flora Napolitana 3: 17-18. Napoli.

Tenore, M. 1830. Flora Napolitana 4 (Florae Neapolitanae Sylloge): 6-7. Napoli.

Tenore, M. 1830b. Flora Napolitana 4 (Ad Florae Neapolitanae Plantarum Vascularium Syllogem, Appendix Tertia: emendationes, atque additamenta novissima complectens): 1. Napoli.