







## (2021) Proposal to conserve the name *Teucrium microphyllum* against *T. quadratum* (*Lamiaceae*)

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(2021) *Teucrium microphyllum* Desf. in Ann. Mus. Hist. Nat. 10: 300. 1807 [Angiosp.: Lab.], nom. cons. prop.

**Lectotypus (hic designatus):** [Greece, Crete], “Chamaedrys Cretica, saxatilis, folio exiguo, subtus incano”, Tournefort (P-TRF No. 2 p. 14, barcode P00667264).

(=) *Teucrium quadratum* Schreb., Pl. Verticill. Unilab.: 36. Sep 1773, nom. rej. prop.

Lectotypus (vide Coincy in J. Bot. (Morot) 11: 314. 1897): “Hispania”, Gundersheimer (M barcode M-0005177 [ex Herb. Schreber No. 5341]).

*Teucrium microphyllum* Desf. (in Ann. Mus. Hist. Nat. 10: 300. 1807) is an East Mediterranean plant distributed in the Aegean Islands and Southwest Anatolia (Ekim in Davis, Fl. Turkey E. Aegean Isl. 7: 53–75. 1982; Özcan in Biol. Diversity Conservation 6: 79–87. 2013).

The protologue of *Teucrium quadratum* Schreb. (Pl. Verticill. Unilab.: 36. 1773, a dissertation republished as Pl. Verticill. Unilab. Gen. Sp.: 36. 1774) includes a brief diagnosis and a synonym “Chamaedrys hispanica minima saxatilis incana” cited from Tournefort (Inst. Rei Herb., ed. 3, 1: 205. 1719) and Ray (Hist. Pl. 3: 282. 1704), followed by a provenance “H. [Habitat] in Hispania”, and a description in Latin. No illustrations were provided in the protologue or in Schreber’s work. The provenance “Hispania” is certainly an “error” (see below). Despite what was indicated by Schreber (l.c.), and accepted by Willdenow (Sp. Pl. 3(1): 90–91. 1800), it is a species distributed in the eastern Mediterranean and is not found in Spain (Coincy in J. Bot. (Morot) 11: 314. 1897; Tutin & Wood in Tutin & al., Fl. Eur. 3: 133. 1972; Navarro in Morales & al., Fl. Iberica 12: 30–166. 2010).

From May 1700 to June 1702, the botanist Joseph Pitton de Tournefort made a trip to the Levant, accompanied by the German botanist and physician Andreas von Gundersheimer and the painter Claude Aubriet. The journey would take him to Crete, most of the Aegean Islands, Turkey, Georgia and Armenia (see Tournefort, Relation d’un Voyage du Levant fait par Ordre du Roy. 1717; Desfontaines, Choix Pl. Coroll. 1808; Lack in Ann. Naturhist. Mus. Wien, B 96, suppl.: 183–236. 1996).

Some specimens from this trip are found in the herbarium of Andreas von Gundersheimer now at M. Gundersheimer’s collection of plants from his travels to the East was elaborated by Johann Gottlieb Gleditsch, a German physician and botanist. Since Gleditsch did

not have enough time to finish this work, he sent a number of specimens to Johann Ch. D. von Schreber in Munich, who described these in his works; among these was a specimen described by Schreber (l.c.) as *Teucrium quadratum*. Thus, in the herbarium at M there is a specimen (barcode M-0005177) of *T. quadratum* originating from Gundersheimer’s collections. The sheet bears a plant fragment, with leaves and flowers, and a label with: “Teucrium quadratum / Schreb. / Schultes. / Hispania Herbarium Gundersheimer” in what appears to be one handwriting, and “Coincy vidit! / Vide Coincy in Journ. de bot. 1897 / [Los.?] VII. 98” in a second handwriting. Indeed, Auguste de Coincy (l.c.: 314–315) had discussed this specimen, commenting: “Schreber a identifié le *Chamaedrys hispanica minima saxatilis incana* Tourn. avec son *T. quadratum*; or, l’herbier de Schreber contient ce dernier type sous le n° 5341, authentiqué de sa propre main, s’appliquant à une plante complètement différente” (Schreber identified *Chamaedrys hispanica minima saxatilis incana* Tourn. with his *T. quadratum*; however, the herbarium of Schreber contains this last type under the n° 5341, authenticated by his own hand, applying to a completely different plant), which can be taken as an effective lectotypification of the name under Art. 7.11 (Turland & al in Regnum Veg. 159. 2018).

Thirty-four years later, the species was once again described, this time by Desfontaines, as *Teucrium microphyllum*. He cited a polynomial of Tournefort: “Chamaedrys, cretica saxatilis, folio exiguo, subtus incano”, but not the same one of Tournefort: “Chamaedrys hispanica minima saxatilis incana” that Schreber had cited in 1773. He focused on other characteristics in his diagnosis (“Fruticosum, procumbens; foliis ovatis, margine revolutis, crenulatis, subtus incanis; verticillis subbifloris”). Desfontaines (l.c. 1807: pl. 22) included in the protologue a drawing by Claude Aubriet of this species (see also Desfontaines, l.c. 1808: pl. 11).

Several species described by Desfontaines (e.g., Desfontaines, l.c. 1808) were based on specimens in the Tournefort Herbarium (P-TRF) as well as in the Vaillant Herbarium (P) and that of Jussieu (P-JU) (see Stafleu & Cowan in Regnum Veg. 94 (TL-2, 1): 627, 628. 1976). Tournefort, Jussieu, and Vaillant travelled together. A specimen at P (barcode P00652478, image available at <https://mediaphoto.mnhn.fr/media/1640785818924E18nE8aG32EDMuPT>) was indicated as “holotype” of *T. microphyllum* by Ekim (l.c.: 68). The sheet bears a complete plant and a label annotated as “Museum Parisiense / Herbarium Tournefortianum / N° 1450”. However, this material can be identified as belonging to *T. chamaedrys* L. (Sp. Pl.: 565. 1753). In

addition, the specimen lacks any annotation by Tournefort (or Desfontaines), and does not have any identification, provenance, or collection date. Therefore, this material cannot be indubitably considered as original material, and the “typification” published by Ekim (l.c.) must be treated as ineffective.

On the other hand, there is a specimen of this species from the collection of Vaillant at P. The sheet, with barcode P04283877, bears a specimen with leaves and flowers, and two labels: “Chamaedrys Cretica, saxatilis, folio / exiguo, subtus incano. Coroll. I.R.H. / 14. / herbier du Vaillant” and “Teucrium microphyllum Desf. plant. du Tourn. / (Desfontaines)” [handwritten by Édouard Spach] (image available at <https://mediaphoto.mnhn.fr/media/1441362667877bjpdZAdZkqn0YRYF>). This specimen can be considered original material of *T. microphyllum*.

We have found another specimen of this taxon in the Tournefort Herbarium at P. The sheet is barcoded P00667264 and bears a stem with leaves and flowers, and two labels: the first: “Teucrium microphyllum”, and the second: “Chamaedrys Cretica, saxa / tilis, folio exiguo, subtus / incano. Corol. IRH 14.”, to which is glued the notation “Specimen unicum” (image available at <https://mediaphoto.mnhn.fr/media/1658246733201RtalKzKGugqirVUg>). This specimen can also be considered original material and is designated here as lectotype of the name.

Still another specimen at P (barcode P00652497, image available at <https://mediaphoto.mnhn.fr/media/164078588760441hsTfFAxQj8vDRW>), labelled “Herbarium Tournefortianum N°. 1469” and “Chamaedrys / Cretica, saxatilis, folio exiguo / subtus incano”, also can be identified with this species. It bears the identification of Coincy: “= *T. quadratum* Schreb.?” who discussed this specimen in his 1897 article (Coincy, l.c.: 315): “Il y a dans l’herbier de Tournefort, conservé au Muséum sous le n° 1469, un *Teucrium* étiqueté *Chamaedrys cretica saxatilis folio exiguo subtus incano* tellement identique avec le *T. quadratum* authentique de l’herbier Schreber qu’on dirait les deux exemplaires détachés de la même souche: il est donc probable qu’il faut rayer le *Teucrium quadratum* de la liste des plantes espagnoles” (There is in the Tournefort Herbarium, preserved in the Museum under the number 1469, a *Teucrium* labeled *Chamaedrys cretica saxatilis folio exiguo subtus incano* so identical

with the authentic *T. quadratum* of the Schreber Herbarium that it looks like the two specimens are detached from the same strain: it is therefore likely that *Teucrium quadratum* should be removed from the list of Spanish plants). While it may duplicate the other collection of Tournefort, it is not associated in any way with *T. microphyllum* or Desfontaines, so it may not be original material for his name.

These specimens (herb. Vaillant P04283877 and herb. Tournefort P00667264 and P00652497), and the illustration included in the protologue of Desfontaines, can be identified with the concept of Schreber’s *Teucrium quadratum* (see Smith in Sibthorp & Smith, Fl. Graec. 6: 25, t. 530. 1825). Therefore, the names *T. microphyllum* and *T. quadratum* should be treated as synonymous.

Because *Teucrium quadratum* has priority over *T. microphyllum* under Art. 11.4 of the ICN, it is incorrect to treat the former as the synonym of the latter, but replacing the name *T. microphyllum* by *T. quadratum* would be destabilising. Therefore, to preserve nomenclatural stability, we propose conservation of *T. microphyllum* against *T. quadratum* under Art. 14.1 of the ICN. Rejection of this proposal would have an undesirable consequence because the well-known and well-established name *T. microphyllum* (see, e.g., Tutin & Wood, l.c.; Ekim, l.c.; Özcan, l.c.) would be abandoned and become a later heterotypic synonym of the unknown and ignored name *T. quadratum*.

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## (2022) Proposal to conserve the name *Loasa rudis* (“*Nasa rudis*”) against *L. rhoeadifolia* (*Loasaceae*)

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Typus: Guatemala: Santa María, Nov 1840, Hartweg (K barcode K000372760!).