

# Effective typification of the Linnaean name *Thymus pulegioides* (Lamiaceae)

P. P. FERRER-GALLEGO

Servicio de Vida Silvestre, Centro para la Investigación y la Experimentación Forestal de la Generalitat Valenciana (CIEF), av. Comarques del País Valencià, 114, ES-46930 Quart de Poblet, Valencia, España

**ORCID iD.** P. P. Ferrer-Gallego: <https://orcid.org/0000-0001-7595-9302>

Author for correspondence: P. P. Ferrer-Gallego ([flora.cief@gva.es](mailto:flora.cief@gva.es))

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## Abstract

EFFECTIVE TYPIFICATION OF THE LINNAEAN NAME *THYMUS PULEGIOIDES* (LAMIACEAE).— The typification of the Linnaean name *Thymus pulegioides* (Lamiaceae) is revised. This name had previously been “lectotypified” by Mártonfi in 1997 from a specimen kept at the herbarium LINN (Herb. Linnaeus No. 38.6). However, Linnaeus cited a specimen of Sauvages in the protologue, currently preserved in the herbarium LINN (Herb. Linnaeus No. 38.5). Therefore, in lectotype designation this specimen must be chosen according to the International Code of Nomenclature for algae, fungi, and plants (Art. 9.12 of the Shenzhen Code of 2018).

Key words: Labiatae; lectotype; Linnaeus; nomenclature; syntype.

## Resumen

TIPIFICACIÓN EFECTIVA DEL NOMBRE LINNEANO *THYMUS PULEGIOIDES* (LAMIACEAE).— Se revisa la tipificación del nombre de Linneo *Thymus pulegioides* (Lamiaceae). Este nombre fue previamente “lectotipificado” por Mártonfi en 1997 a partir de un espécimen conservado en el herbario LINN (Herb. Linnaeus No. 38.6). Sin embargo, Linneo citó un espécimen de Sauvages en el protólogo, en la actualidad conservado en LINN (Herb. Linnaeus No. 38.5). Por lo tanto, en la designación del lectotipo debe elegirse este espécimen de acuerdo con el Código Internacional de Nomenclatura para algas, hongos y plantas (Art. 9.12 del Código de Shenzhen de 2018).

Palabras clave: *Labiatae*; lectotipo; Linneo; nomenclatura; sintipo.

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## INTRODUCTION AND TYPIFICATION OF THE NAME

*Thymus pulegioides* L. (sect. *Serpyllum* (Miller) Benth.; *Lamiaceae*) is a highly polymorphic and widespread species distributed across to temperate parts of Europe (Jalas & Kaleva, 1970; Jalas, 1972, 1974; Ložiene, 2006; Morales, 2010).

As part of taxonomic and nomenclatural studies of the genus *Thymus* L. for the Valencian flora (see Ferrer-Gallego *et al.*, 2013, 2019; Pedaúy *et al.*, 2016; Ferrer-Gallego, 2019), the original material and typification of the name *Thymus pulegioides* has been studied. The nomenclatural type of *T. pulegioides* has been recently discussed by Nachychko & Sosnovsky (2020). However, a new interpretation of the Linnaeus original material should be made for effective typification of the name.

Linnaeus (1753: 592) described *Thymus pulegioides* providing a short diagnosis “THYMUS ramis verticillatis longis, foliis ovalibus striatis”, followed by the synonym “Acinos thymi folio & facie, floribus inexpandis” cited from Morison (1699: 404, s. 11, t. 19, f. 6). The protologue also includes “*Habitat* Monspelii. *D. Sauvages*”, and a description “*Habitus* *Melissae pulegioidis* f. *Mentha pulegii*, at *Cacyces bilabiati a Satureja, ore barbati a Melissa & Mentha eam distinguunt. Caulis spithamens, erectus. Rami pauci, simplices, breves. Folia ovalia, obtuse, glabra, subtus striata. Rami & plantae maxima pars verticillis obvallata*”. The reference quoted by Linnaeus (Morison, 1699) includes an illustration that can be considered as original material.

Several authors (e.g. Ronniger, 1924, 1944; Klovov, 1954; Menitsky, 1978, Mártonfi, 1997; Jarvis 2007; Nachychko & Sosnovsky, 2020) mentioned that there are at least two specimens at LINN (Herb. Linnaeus Nos. 38.5 and 38.6) that can be treated as Linnaeus’ original material of *T. pulegioides*. The sheet No. 38.5 LINN bears a stem, with leaves and flowers, and is annotated “Monsp.” [Monspeliensis] and “8” (the number in the *Species Plantarum* for *Thymus pulegioides*) by Linnaeus, and “thymoides / *Thymus pulegioides* Sp. Pl. 1. No. 8” by James Edward Smith (image available at <http://linnean-online.org/153>). On the other hand, the sheet No. 38.6 LINN bears a stem, with leaves and flowers, and is annotated “*Satureja*”, “*thymoides*”, and “8” by Linnaeus (image available at <http://linnean-online.org/154>).

According to Jarvis (2007), the “lectotype” was “effectively” designated by Ronniger (1944: 37) from the specimen Herb. Linnaeus No. 38.5 (LINN), and this viewpoint was subsequently adopted by modern monographers of *Thymus* (e.g. Morales, 2010; Bartolucci *et al.*, 2013; Knyasev, 2015; Nachychko *et al.*, 2019). However, recently Nachychko & Sosnovsky (2020) conclude that the publication of Ronniger (1944) is not the place of effective designation of the lectotype of *T. pulegioides*. Ronniger (1944) used the following phrase: “Die Originalpflanze liegt im Herbar Linné heute noch aufbewahrt” [The original plant is still preserved today in the Linnaean Herbarium]. In this sense, according to Nachychko & Sosnovsky (2020), the Ronniger’s (1944) term “Originalpflanze” meant “original specimen” and was not intended as an equivalent of the term “type” (typus). Therefore, according to Art. 7.11 of the *Shenzhen Code* (see Turland *et al.*, 2018) in its strict interpretation (see, e.g. Ex. 12), an equivalent of the term “type” must be one of its “linguistic equivalents” (in German: “Typus” or “Typ”), none of which was used by Ronniger (1944) (see Nachychko & Sosnovsky, 2020).

On the other hand, Mártonfi (1997: 158), and later Nachychko & Sosnovsky (2020: 25), treated the specimen Herb. Linnaeus No. 38.6 (LINN) as “lectotype” of *T. pulegioides*. However, Linnaeus explicitly cited a gathering in the protologue, with a specific locality and author, as “*Habitat* in Monspelii. *D. Sauvages*” (see *Shenzhen Code* Art. 40 Note 1 and Note 2), identifiable as a specific specimen currently preserved at LINN herbarium (No. 38.5 LINN). Therefore, unfortunately, the “typification” of Mártonfi (1997), supported by Nachychko & Sosnovsky (2020), is ineffective according to Art. 9.12 of the *ICN* (Turland *et al.*, 2018).

According to Jarvis (2007: 226), Sauvages<sup>1</sup> gave his herbarium of plants from southern France to Linnaeus in 1749. Although not all of the plants carry Sauvages’s labels, it seems clear that in many cases [see e.g. No. 290.12 (LINN) as the lectotype of *Illecebrum cymosum* L.; No. 741.4 (LINN) as the lectotype of *Moluccella frutescens* L.; No. 655.19 (LINN) as the lectotype of *Potentilla hirta* L.], where he is mentioned in the protologue,

1. François Boissier de la Croix de Sauvage (1706–1767) was a French naturalist and physician, professor of medicine (1734), later of botany (1740) at the University of Montpellier, staunch supporter of Linnaeus and the Linnaean ideas in France (Staffleu & Cowan, 1985).

corresponding material in LINN carries “Monsp.” and in all likelihood came from him.

In conclusion, because Sauvages’s material at LINN (now No. 38.5) has been cited in the protologue by Linnaeus, and both (protologue and specimen) are linked, it is a syntype (according to *Shenzhen Code* Art. 9.6) and has precedence in lectotype designation over unmentioned specimens and cited illustrations according to Art. 9.12 of the *ICN*. It is therefore the obligate lectotype and accordingly designated here as such.

Fortunately, this specimen clearly represents the traditional concept and current application of the name *Thymus pulegioides* (e.g. Jalas & Kalea, 1970; Jalas, 1972, 1974; Ložiene, 2006; Morales, 2010).

*Thymus pulegioides* L., Sp. Pl.: 592. 1753.

*Ind. loc.*: “Habitat Monspelii.”

**Lectotype** (designated here): “Monsp.” [Monspe-liensis] (Montpellier, France), *François Boissier de la Croix de Sauvage* s.n., s.d., Herb. Linnaeus No. 38.5 (LINN [photo!]) (image available at <http://linnean-online.org/153>).

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