

Short note

Typification of *Stoechas pedunculata*, the basionym of *Lavandula pedunculata* (Lamiaceae)

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Abstract. A neotype for the widespread and ecologically important plant *Lavandula pedunculata* Mill. (Lamiaceae) [= *Stoechas pedunculata* (Mill.) Cav.] is designated. The neotype is selected from a modern specimen preserved at the VAL herbarium (VAL 174683) and collected in Spain.

Keywords. Cantueso, Cavanilles, Philip Miller, Lamiaceae, neotype, nomenclature, Spain.

Resumen. Se designa un neotipo para la planta ampliamente difundida y ecológicamente importante *Lavandula pedunculata* Mill. (Lamiaceae) [= *Stoechas pedunculata* (Mill.) Cav.]. El neotipo se selecciona a partir de un espécimen moderno conservado en el herbario VAL (VAL 174683) y recolectado en España.

Palabras clave. Cantueso, Cavanilles, Philip Miller, Lamiaceae, neotipo, nomenclatura, España.

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Title in Spanish: Tipificación de *Stoechas pedunculata*, el basiónimo de *Lavandula pedunculata* (Lamiaceae).

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The genus *Lavandula* L. (Lamiaceae) consists of 39 species (Upson 1997; Upson & Andrews 2004) arranged in six sections (Suárez-Cervera & Seoane-Camba 1986a). Lavenders are grown mostly for their essential oils, which are used in perfumery, cosmetics, food processing and aromatherapy products. Certain types of lavender oil also have antimicrobial and antifungal properties and the oil of the spike lavender (*L. latifolia* Medik.) is even used as an insect repellent (McNaughton 2002; Upson & Andrews 2004). Many species of lavender are also grown as ornamental plants and used as ingredients in various cottage industry products. The dried flowers have been used for centuries in pillows and sachets to promote sleep and relaxation (Upson & Andrews 2004).

Lavandula sect. *Stoechas* Ging. and sect. *Dentatae* Suárez-Cerv. & Seoane-Camba have cymes with 3 to 7 floweres, subtended by broadly ovate to obovate bracts with reticulate veining, also with an opposite and decussate arrangement but forming a cylindrical shaped spike. Both of these sections also have a distinctive tuft of coloured sterile bracts at the top of the spike, generally known as a coma. Section *Stoechas* includes

three closely related species, *L. stoechas* L., *L. pedunculata* (Mill.) Cav., and *L. viridis* L'Hér., with several infraspecific taxa and some hybrids, e.g., *L. ×cadevallii* Sennen (= *L. stoechas* × *L. pedunculata*), *L. ×alportensis* P.Silva, Fontes & Myre (= *L. stoechas* subsp. *luisieri* (Rozeira) Rozeira × *L. viridis*), *L. ×limae* Rozeira (= *L. pedunculata* × *L. viridis*) (Bentham 1848; Chaytor 1937; Rozeira 1949, 1964; Guinea 1972; Upson 1997; Upson & Andrews 2004; Morales 2010; Van Oost & al. 2021; Vázquez & al. 2022).

Lavandula pedunculata is an ecologically important species of the calcareous and siliceous soils in Spain, Portugal, and Morocco (Guinea 1972; Suárez-Cervera & Seoane-Camba 1986b; Bolòs & Vigo 1996; Ruiz de la Torre 2006; Vázquez & al. 2022). Some authors treat it as a subspecies of the French lavender, *L. stoechas* subsp. *pedunculata* (Mill.) Samp. ex Rozeira (Guinea 1972; Bolòs & Vigo 1996; López González 2001; Ruiz de la Torre 2006). In most taxonomic resources however, it is currently accepted at the rank of species (Chaytor 1937; Upson & Andrews 2004; Morales 2010; Van Oost & al. 2021; Euro+Med 2022; GBIF 2022; GRIN 2022; POWO 2022;

WCVP 2022; WFO 2022; Vázquez & al. 2022).. *Lavandula pedunculata* is widely cultivated as an ornamental shrub and sometimes naturalised outside of its native range. A number of cultivars have been developed, of which ‘James Compton’ is the most commonly available (Chaytor 1937).

There is some dispute over the nomenclatural status of the name *L. pedunculata*. Some authors treat it as a new name ascribed solely to Cavanilles (see Chaytor 1937; Suárez-Cervera & Seoane-Camba 1986a; Garilleti 1993), whilst others consider it to be a new combination based on *Stoechas pedunculata* Mill. (e.g., Upson & Andrews 2004). We take the latter view with the aim to formally typify Miller’s basionym.

This work is based on the analysis of the protologue of *Stoechas pedunculata*, the examination of the relevant literature and the study of the specimens preserved at the herbaria ABH, BCN, BM, FCO, HUAL, LEB, LISI, MA, MAF, SANT, UPNA, VAL, VIT) (herbarium codes according to Thiers 2022 [continuously updated]). The taxonomic identity of the proposed type was carefully verified against the traditional concept and the current usage of the name *L. pedunculata*. In the typification section, the names are arranged in chronological order and the homotypic synonyms are indicated with the triple bar symbol (\equiv). The name in current use is set in bold italics typeface.

Typification of *Lavandula pedunculata*

Stoechas pedunculata was described by Philip Miller in the eighth edition of the *Gardeners Dictionary* (Miller 1768: *Stoechas* No. 2). This monumental work was the most popular horticultural lexicon of the eighteenth century and included descriptions of over 4,500 species of plants, many of them new to science (Stearn 1972).

The protologue of *S. pedunculata* consists of a descriptive phrase-name in Latin with a specific epithet in parentheses “2. STOECHAS (*Pedunculatus*) foliis lanceolato-linearibus, pedunculis longissimis” and its English translation “*Stoechas* with spear-shaped linear leaves, and the longest foot-stalks to the flowers”, followed by the synonym “*Stoechas cauliculis non foliosis*. C. B. P. 216” (this reference being to Bauhin 1623: 216, where the word ‘foliosis’ is actually spelled as ‘foliatis’) which is then erroneously translated into English as “*Stoechas* without foot-stalks and leaves” (in the seventh edition of the Dictionary Miller correctly translated it as “*Stoechas* with Foot Stalks having no Leaves on them”). The original spelling of the specific epithet ‘*Pedunculatus*’ is also correctable to ‘*pedunculata*’ under Art. 32.2 of the ICN (Turland & al. 2018), as the gender of the generic name ‘*Stoechas*’ is feminine.

The protologue also includes information about the origin of this species, which according to Miller “grows

naturally in Spain”, and a more detailed description in the main article on the genus *Stoechas*: “The difference between this and the first [i.e., *S. officinarum* Mill.] consists in the foot-stalks, which sustain the spikes of flowers, being three times the length of those of the first, and naked, having no leaves. The spikes of flowers are longer and not so thick, and they have more coloured leaves on their tops, which are longer, and of a brighter purple colour. These differences are not accidental for I have many years propagated this plant by seeds, and have always found them the same. The flowers, seeds, and other parts are the same. Of both these there are some plants which vary in the colour of their flowers, some producing white, and others purplish flowers, but the most common colour is blue.”.

In the introductory notes about the genus *Stoechas* Miller explains that Linnaeus joined it to *Lavandula*, which indicates that he preferred to keep it and its associated species separate from the Linnaean concept. Therefore, the clear comparison that Miller makes between *S. pedunculata* and *S. officinarum* (which is the same as *Lavandula stoechas* L. sensu stricto) in the main text and the fact that no particular specimens are cited in the protologue mean that he probably based his idea of *S. pedunculata* at least partially, on the unnamed variety β of *L. stoechas* L., for which Linnaeus cited the same synonym as Miller, i.e. “*Stoechas cauliculis non foliatis* C. B. P. 216” (Linnaeus 1753: 573). Linnaeus also cited Clusius’s name “*Stoechas longioribus ligulis* Clus. Hist. 1 p. 344” (Clusius 1601: 344), which Miller unfortunately does not include in his circumscription as he typically cited just one synonym per entry for most names in the *Dictionary*, with very few exceptions where two or more synonyms are given.

It is thus likely that Miller actually derived the Spanish origin of *S. pedunculata* from Clusius’s account, who reported that it grows in Spain, Portugal, and southwestern France (“*Crescit Stoechas plurimis Hispaniae, Lusitaniae, & Galliae Narbonensis locis*”). Clusius also gives two very good illustrations (Fig. 1) showing the contrasting characters between what we interpret as *L. pedunculata* (Mill.) Cav. (i.e., ‘*Stoechas longioribus ligulis*’ of Clusius) and *L. stoechas* L. (i.e., ‘*Stoechas brevioribus ligulis*’). It is possible that Miller’s description of *S. pedunculata*, especially the long, slender, leafless peduncles three times longer than those of *L. stoechas*, is also based on the study of these illustrations. Sadly, Clusius’s illustration is not cited in the protologue of *S. pedunculata*. Miller definitely owned Clusius’s work, as it is listed amongst the references in the introduction to the Dictionary, but he did not associate the illustration of ‘*Stoechas longioribus ligulis*’ with the name *S. pedunculata* anywhere in the accompanying text or in his other works, therefore we do not consider it to be part of the original material for this name.

Thirty four years after the eighth edition of the *Gardeners Dictionary* was published, the Spanish botanist Anto-

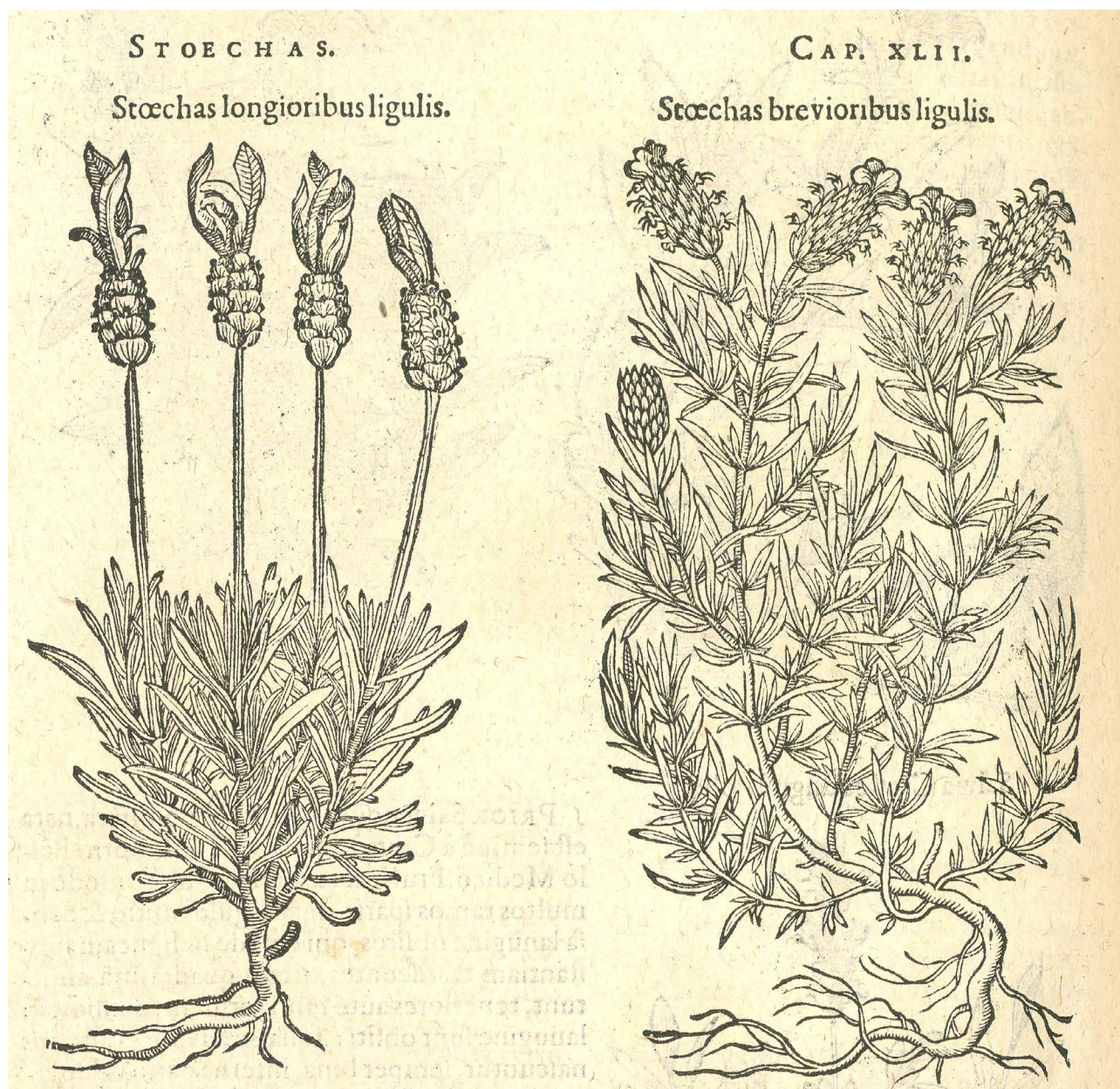


Fig. 1. Clusius's illustration of *Lavandula pedunculata* (Mill.) Cav. labelled as "Stoëchas longioribus ligulis" (1601: 344). Image taken from the Biblioteca Digital del Real Jardín Botánico, RJB-CSIC (<https://bibdigital.rjb.csic.es>).

nio José Cavanilles transferred Miller's name to the genus *Lavandula* (Cavanilles 1802: 618), but without a direct reference to the basionym. Cavanilles (1802: 70) attributed the diagnostic phrase name of his *L. pedunculata* "foliis lanceolato-linearibus: pedunculis longissimis: spicis longe cristatis" to Clusius ("Clus. loco citato"), but this polynomial does not appear in any of Clusius's works and is in fact a verbatim transcription of the Millerian diagnosis for *S. pedunculata* with the words 'spicis longe cristatis' (i.e., long, tufted spikes) added at the end. This, and the fact that Cavanilles uses the same final epithet which Miller already applied to his own name, can be interpreted as

an indirect citation of Miller's basionym under Art. 41.3 of the *ICN* (Turland & al. 2018), making Cavanilles's name a valid combination. Cavanilles was also familiar with Miller's work as he included many references to the *Figures of Plants* (which was an illustrated supplement to the *Gardners Dictionary*, published separately) throughout his own work, therefore it can be also assumed that it was his presumed intent to transfer Miller's basionym to the genus *Lavandula* under Art. 41.4 of the *ICN* (Turland & al. 2018).

Garilleti (1993: 181) treated Cavanilles's designation as a new species name (not as a new combination) and indi-

cated that the specimen MA 99574, collected in “Méntrida, Casa del Campo” and mounted on two separate sheets MA-01-00099574 and MA-02-00099574 (Fig. 2), was its “Material tipo” [type material]. Garilleti’s use of the word ‘tipo’ could thus potentially be corrected to ‘neotype’ of *L. pedunculata* (Mill.) Cav. (and its basionym *S. pedunculata* Mill.) under Art. 9.10 of the *ICN* (Turland & al. 2018), but Garilleti (1993) clearly stated in the introduction to his work that he did not intend to designate any lectotypes for Cavanilles’s names in there, so this typification cannot be accepted. He wrote: “Nuestro objetivo ha sido estudiar el herbario de A. J. Cavanilles, en ningún caso se ha concretado una lectotipificación de sus táxones” [Our aim was to study the herbarium of A. J. Cavanilles, in no case has lectotypification of his taxa been attempted] (Garilleti 1993: 5; Garilleti, pers. comm.). Because of this statement, many subsequent authors interpreted Garilleti’s citation of the “type material” in his publication as not constituting an

effective typification (e.g., Knapp 2007; Buira & al. 2015; Iamónico & Valdés 2017; Ferrer-Gallego 2021). Because the word “type” was associated by Garilleti with over 1000 taxon names and their corresponding specimens, if those were to be interpreted as inadvertent lecto- or neotypifications, it would have been very disruptive to nomenclature. Therefore, we follow the established practice and consider that no effective designation of type specimens took place in Garilleti’s work.

This still leaves Miller’s name without the nomenclaturally important type specimen. Sadly, he did not cite any particular specimens in the protologue and Bauhin’s name (1623: 216) listed in the synonymy does not have a corresponding illustration, therefore a lectotype has to be selected from amongst the elements of the original material that were available to Miller before the eighth edition of the *Gardeners Dictionary* was published in 1768, if they exist.



Fig. 2. Specimen of *Lavandula pedunculata* (Mill.) Cav. collected by Cavanilles in “Méntrida, Casa del Campo”, MA (barcode MA 99574). The specimen is mounted on two herbarium sheets identified as MA-01-00099574 and MA-02-00099574. Photograph by and courtesy of Herbarium MA; reproduced with permission.



Fig. 3. Neotype of *Lavandula pedunculata* (Mill.) Cav., VAL (VAL 174683). Photograph by and courtesy of Herbarium VAL; reproduced with permission.

Miller's own personal herbarium, allegedly containing almost 10,000 specimens, was purchased by Sir Joseph Banks in 1774 and was later incorporated into the General Herbarium at BM (Britten 1913, Stearn 1972). Unfortunately, no specimen identifiable as *L. pedunculata* can now be found in Miller's own collection at BM. There is also no material of *L. pedunculata* amongst the specimens of plants grown at the Chelsea Physic Garden (of which Miller was the director from 1722 to 1771) and sent to the Royal Society between 1722 and 1796 as part of an agreement between Sir Hans Sloane and the Worshipful Society of Apothecaries (see Minter 2019). This collection of nearly 4,000 specimens gathered by Miller's assistants (not by Miller himself) was transferred to the British Museum in 1781 and integrated into the General Herbarium in the late 1880s (Stearn 1972). There are also no Miller's specimens of *L. pedunculata* in the Clifford Herbarium at BM or in the Linnean Society's collection, where his material is sometimes found. No material corresponding to *S. pedunculata* can also be found amongst the collection of nearly 1,500 specimens cultivated at the Chelsea Physic Garden and presented by Miller to Sir Hans Sloane between 1727 and 1739, now at BM (see Wajer 2020: 75 for details). This species is also not illustrated in the Figures of Plants (Miller 1755-1760), which was intended as an illustrated supplement to the Gardeners Dictionary, nor are there any examples of it amongst the drawings of plants cultivated at the Chelsea Physic Garden and presented by Miller and Taylor White to the Royal Society (see Stungo 1996 for the history of this collection).

In conclusion, as an exhaustive search for the original material of *Stoechas pedunculata* failed to locate any extant specimens, a neotype is here selected in accordance with Art. 9.13 of the ICN (Turland & al. 2018). We have selected a modern and complete specimen preserved at VAL, with barcode VAL 174683 (Fig. 3) from an exsiccatum (AHIM. Exsiccata de Flora Iberomacaronésica selecta. Asociación de Herbarios Ibero-Macaronésicos. Centuria X (2005). Núm. 0989) with duplicates at several herbaria (ABH, BCN, FCO, HUAL, LEB, LISI, MA, MAF, SANT, UPNA, VIT). The specimen selected as the neotype shows the diagnostic characters of *Stoechas pedunculata* Mill. (e.g., flowers stalk (peduncle) long (10–)20–30 cm, spike quite short 2–3 cm, ovate in outline; lower fertile bracts kidney shaped, the upper fertile bracts broadly obovate; coma large 3–4 cm and narrowly lanceolate to spatulate in shape; calyx appendage entire) and matches unambiguously with the traditional concept and the current use of the name (e.g., Chaytor 1937; Guinea 1972; Bolòs & Vigo 1996; López González 2001; McNaughton 2002; Upson & Andrews 2004; Ruiz de la Torre 2006; Morales 2010; Vázquez & al. 2022).

Stoechas pedunculata Mill., Gard. Dict. ed. 8, n.º 2. 16 April 1768 [*'pedunculatus'*] ≡ *Lavandula pedunculata* (Mill.) Cav., Descr. Pl.: 70. 1802 ≡ *L. stoechas* subsp. *pedunculata* (Mill.) Samp. ex Rozeira in Agron. Lusit. 24: 173. 1964. Type: Spain, Cuenca, Talayuelas, Solana de la Chupedilla, 960 m.s.m., 30SXX5209, 1-VI-2005, J. Riera, C. Torres & J. Fabado 51027 (**neotype designated here**: VAL 174683) Fig. 3. Isonotypes: ABH 49892, BCN 38902, FCO 28620, HUAL 17826, LEB 84537, LISI-IBER 11/2006-1, MA00751283, MAF 166652, SANT 54391, UPNA 10288, VIT 77464.

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REFERENCES

- Bentham G. 1848. *Labiatae*. In de Candolle A.P. (ed.), *Prodromus*, Vol. 12, Treuttel et Wurtz, Paris, 55.
- Bauhin C. 1623. *Pinax theatri botanici*. Ludovici Regis, Basileae. Bolòs O. de & Vigo J. 1996. *Flora dels Països Catalans*, vol. 3. Ed. Barcino, Barcelona.
- Britten J. 1913. Philip Miller's plants. *Journal of Botany, British and Foreign* 51: 132–135. Buirra A., Quintanar A. & Aedo C. 2015. Lectotypification of three Iberian endemic species belonging to monotypic genera described by Cosson. *Anales del Jardín Botánico de Madrid* 72: e024.
- Cavanilles A.J. 1802. *Descripción de las plantas que D. Antonio Josef Cavanilles demostró en las lecciones públicas del año 1801 y 1802, precedidas de los principios elementales de la botánica*. Tomo 1, págs. I-CXXXVI, 1-284 [i, err.]. Madrid.
- Chaytor D. 1937. A taxonomic study of the genus *Lavandula* L. *The Journal of the Linnean Society. Botany* 51(338): 153–204.
- Clusius C. 1601. *Rariorum plantarum Historia, et Appendix ad Historiam plantarum*. Christophoro Plantini, Antwerpen.
- Euro+Med 2022+. Euro+Med PlantBase - the information resource for Euro-Mediterranean plant diversity. Published on the Internet <http://ww2.bgbm.org/EuroPlusMed/> [accessed: 25 May 2022].
- Ferrer-Gallego P.P. 2021. (2798) Proposal to conserve the name *Cistus laevis* (*Fumana laevis*) against *C. pilosus* (Cistaceae). *Taxon* 70(1): 208–209.
- Garilleti R. 1993. Herbarium Cavanillesianum, seu, Enumeratio plantarum exsiccatarum aliquo modo ad novitates Cavanillesianas pertinentium, quae in Horti Regii Matritensis atque Londinensis Societatis Linnaeanae herbariis asservantur. *Fontqueria* 38: 6–248.
- GBIF 2022. *Lavandula pedunculata*. <https://www.gbif.org/species/7307760> [accessed: 25 May 2022].
- GRIN 2022. *Lavandula pedunculata* (Mill.) Cav. <https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomydetail?id=453715> [accessed: 25 May 2022].
- Guinea E. 1972 *Lavandula* L. In Tutin T.G., Heywood V.H., Burges N.A., Moore D.M., Valentine D.H., Walters S.M. & Webb D.A. (eds.), *Flora europea* 3: 187–188. Cambridge University Press, Cambridge.

- Iamónico D. & Valdés B. 2017. Typification of Linnaean and Cavanilles names in the genus *Malva* (Malvaceae) for the Spanish flora. *Taxon* 66: 441–444.
- Knapp S. 2007. Lectotypification of Cavanilles' names in *Solanum* (Solanaceae). *Anales del Jardín Botánico de Madrid* 64: 195–203.
- Linnaeus C. 1753. *Species Plantarum*. Laurentius Salvius, Stockholm.
- López González G. 2001. *Los árboles y arbustos de la Península Ibérica e Islas Baleares*. Ediciones Mundi-Prensa, Madrid-Barcelona-México.
- McNaughton V. 2002. *Lavender, the grower's guide*. Garden Art Press, Australia.
- Miller, P. 1755-1760. *Figures of the most beautiful, useful, and uncommon plants described in the Gardeners Dictionary* (...). Vols. 1 and 2. Printed for the Author; And Sold by John Rivington in St. Paul's Church-Yard, A. Millar, H. Woodfall, J. Whiston and B. White, J. Hinton, G. Hawkins, R. Baldwin, J. Richardson, W. Johnston, S. Crowder, P. Davey and B. Law, T. Caslon, [...], London, vol. 1 ([i]-vi p., [150] h. de grab. calc. [Pl. I-LXVIII, LXVIII[bis], LXIX-LXX, LXXII-CL], [1]-100 pp.) and vol. 2 ([150] h. de grab. calc. [Pl. CLI-CCC], 101-200 pp.). <https://bibdigital.rjb.csic.es/idurl/1/13254>
- Miller P. 1768. *The gardeners dictionary, eighth edition*. Rivington, London.
- Minter S. 2019. *The Apothecaries' Garden. A History of the Chelsea Physic Garden*. The History Press, The Mill, Brimscombe Port, Stroud, Gloucestershire.
- Morales R. 2010. *Lavandula L.* In R. Morales & al. (eds.), *Flora iberica* 12: 484–496. Real Jardín Botánico, CSIC. Madrid.
- POWO 2022. *Lavandula pedunculata* (Mill.) Cav. <https://powo.science.kew.org/results?q=Lavandula%20pedunculata> [accessed: 25 May 2022].
- Rozeira A. 1949. A Secção *Stoechas* Ging. do genero *Lavandula L.* *Broteria* 18(46): 1–82.
- Rozeira A. 1964. As subespecies portuguesas de *Lavandula stoechas L.* *Agron. Lusit.* 24: 172–173.
- Ruiz de la Torre J. 2006. Flora Mayor. Organismo Autónomo de Parques Nacionales, Dirección General para la Biodiversidad, Madrid.
- Stearn W.T. 1972. Philip Miller and the Plants from the Chelsea Physic Garden presented to the Royal Society of London, 1723–1796. *Transactions of the Botanical Society of Edinburgh* 41: 293–307. Stungo,
- R. 1996. Recording the *Aloes* at Chelsea. A Singular Solution to a Difficult Problem. *Notes and Records of the Royal Society of London*, Vol. 50 47–57.
- Suárez-Cervera M. & Seoane-Camba J.A. 1986a. Taxonomía numérica de algunas especies de *Lavandula L.*, basada en caracteres morfológicos, cariológicos y palinológicos. *Anales del Jardín Botánico de Madrid* 42: 395–409.
- Suárez-Cervera M. & Seoane-Camba J.A. 1986b. Sobre la distribución corológica del género *Lavandula L.* en la Península Ibérica. *Lazaroa* 9: 201–220.
- Thiers B. 2022 [continuously updated]. *Index Herbariorum: A global directory of public herbaria and associated staff*. New York Botanical Garden's Virtual Herbarium. Available from: <https://sweetgum.nybg.org/ih/> [accessed: 10 Jan. 2022].
- Turland N.J., Wieresma J.H., Barrie F.R., Greuter W., Hawksworth D.L., Herendeen P.S., Knapp S., Kusber W.-H., Li D.-Z., Marhold K., May T.W., McNeill J., Monro A.M., Prado J., Price M.J. & Smith G.F. (eds.) 2018. International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. *Regnum Vegetabile* 159. Glashütten: Koeltz Botanical Books.
- Upson T.M. 1997. *Systematics of the Genus Lavandula L. (Lamiaceae)*. Ph.D. Thesis, The University of Reading.
- Upson T.M. & Andrews S. 2004. The genus *Lavandula*. A Botanical Magazine Monograph, Timber press, Oregon.
- Van Oost E., Leus L., De Rybel B. & Van Laere K. 2021. Determination of genetic distance, genome size and chromosome numbers to support breeding in ornamental *Lavandula* species. *Agronomy* 11: 2173.
- Wajer, J. 2020. Philip Miller. In Carine M. (ed.), *The Collectors: Creating Hans Sloane's extraordinary herbarium*, pp. 72–77. Natural History Museum, London.
- Vázquez F.M., Márquez F., García D. & Nogales L. 2022. Aproximación al conocimiento del género *Lavandula L.* Sección *Stoechas* Ging., (*Lamiaceae*) en el SW de la Península Ibérica. *Folia Bot. Extremadur.* 16: 55–94.
- WCVP 2022. *Lavandula pedunculata* (Mill.) Cav. <https://wcvp.science.kew.org/taxon/449070-1> [accessed: 25 May 2022].
- WFO 2022. *Lavandula pedunculata* (Mill.) Cav. <https://wfo-about.rbge.info/plant-list/taxon/wfo-0000224207-2021-12> [accessed: 25 May 2022].