

Typification of the name *Duranta mutisii* (Verbenaceae)

Pablo Moroni & Nataly O'Leary

Instituto de Botánica Darwinion (ANCEFN-CONICET), Labardén 200, CC 22, B1642HYD San Isidro, Buenos Aires, Argentina

Author for correspondence: Pablo Moroni, pmoroni@darwin.edu.ar

DOI <https://doi.org/10.12705/656.14>

Abstract The typification of the name *Duranta mutisii* (Verbenaceae) is discussed. Original material sent to Linnaeus by Mutis was examined, and a lectotype is chosen.

Keywords *Duranta*; lectotype; typification; Verbenaceae

■ INTRODUCTION

Duranta L. (Linnaeus, 1753: 637) is an American genus of shrubs and small trees distributed from southern North America and the Caribbean to northern Argentina in South America (Sanders, 1984; Múlgura & al., 2012). The genus is characterized by having fruits that are drupes with four or five 2-seeded pyrenes, enclosed by the adherent, and accrescent fruiting calyx which is usually connivent (Caro, 1956; Múlgura & al., 2012). In the only provisional synopsis of *Duranta*, Sanders (1984: 308) estimated that the genus comprised approximately 17 species. *Duranta mutisii* L.f. was the third name validly published within the genus. The two earlier names were published by Linnaeus *pater* (1753: 637): *D. erecta* L. and *D. repens* L., and were typified by Caro (1956) and by Sanders (1989), respectively.

Plants of *Duranta mutisii* are armed shrubs that grow throughout the Andes of Colombia and Venezuela, usually between 1400 and 3000 meters of elevation. The leaves are coriaceous, elliptical, glabrous, with entire margins, rounded and slightly apiculate at apex. In addition to those characters the species is characterized by its racemes, which are arranged in whorls of three (Moroni, in prep.). During the taxonomic revision of the genus *Duranta*, *D. mutisii* was found to require typification. A lectotype is here designated according to the description in the protologue and analysis of Linnaeus's original material currently housed at LINN.

■ TYPIIFICATION

The protologue of *Duranta mutisii* (Linnaeus fil., 1782: 291) reads: “[...] foliis ellipticis integerrimis. *Habitat* in America meridionali. *Mutis*. ̄. In nullis aliis a D. Plumieri & D. Ellisia differet quam foliis. / *Observatio*. / Omnes species *Durantae* spinas supraaxillares habent, inflorescentia, structura coloreque floris adeo similes, ut facile crederem omnes unius eiusdemque esse speciei.” The only direct reference to original material is that the species was collected by the Spanish

botanist José Celestino Mutis in “America Meridionali” (i.e., South America).

José C. Mutis travelled to South America in 1760, without the financial support of the Spanish Crown, given that his proposal for a botanical expedition to the territories of Nueva Granada had been rejected twice (Hoyos Sáinz, 1949: 75–76). During his stay in the territories that are now Colombia he made field collections, the material that he considered interesting was sent to the botanist Linnaeus *pater*, who studied New World plants in this manner as he never traveled outside of Europe (Blanco y Fernández de Caleyá & Del Valle Stervinou, 1991, 2009).

More than one hundred specimens from Mutis's collection were received by Linnaeus *pater* and his son, hereafter Linnaeus *filius*, who worked together in order to study and identify them (Jarvis, 2007: 223). Around the years 1773 and 1774 they made a list of the specimens (Fig. 1) connecting the identification of each plant to a number, which was then sent to Mutis. Each number on the list corresponds directly to numbers written on the specimen sheets currently housed at LINN. The correspondence between Linnaeus and Mutis is currently preserved at LINN and available for study. In one of these letters, dated 8 February 1777, from the Mines of Ybague, Colombia (Smith, 1821: 526), Mutis welcomed the gratitude expressed by Linnaeus for the material received, and appreciation for the list containing identifications.

Linnaeus worked on a new edition of *Systema naturae* until he became ill and his son had to continue the work. Thus Linnaeus *filius* published many of the new species, including *Duranta mutisii*, in the *Supplementum plantarum* (1782), four years after Linnaeus's death in 1778 (Jarvis, 2007: 223).

In 1783 Mutis's project was finally approved by King Charles III of Spain, and that same year the “Real Expedición Botánica al Nuevo Reino de Nueva Granada” started (Hoyos Sáinz, 1949: 126). This ambitious project included not only plant collecting but also a set of botanical drawings to illustrate the “Flora del Virreinato de Nueva Granada”; the drawings were made by an artist workshop located in Mariquita, Colombia (Pacheco, 1975: 21). A drawing from this collection

corresponds to the taxon described as *Duranta mutisii*. It is worth noting that the drawing was made after the publication of the species as it was not sent to Linnaeus with the shipment of dried plants. Although this drawing (available at <http://www.rjb.csic.es/icones/mutis/paginas/laminadibujophp?lamina=2736>) is not part of the original material, it is an important illustration of the taxon.

After Mutis’s death in 1808, General Pablo Morillo summarily ordered the shipment of the collection of plants, drawings and manuscripts to the Royal Botanical Gardens of Madrid (MA). The task was entrusted to Sinforsoso Mutis, a nephew of José Mutis, who had been responsible for packing all the material collected during the expedition (Tellería, 1996; Blanco y Fernández de Caleyá & Del Valle Stervinou, 1991, 2009). The collections deposited at MA were not studied until 1932 when José Cuatrecasas proposed to Ellsworth Killip to study Mutis’s herbarium (Tellería, 1996; Blanco y Fernández de Caleyá & Del Valle Stervinou, 2009). This important project led by Killip was carried out in order to organize and reevaluate Mutis’s herbarium after the rediscovery of the collections in Madrid. The specimens from Colombia, which are not labeled, were stored

in boxes during a period of over one hundred years (Blanco y Fernández de Caleyá & Del Valle Stervinou, 1991: 7). The starting point of Killip’s work was to enumerate each collection belonging to Mutis’s herbarium from number 1 to 5591; according to this numeration, collections 866, 867, 871, 911, 927 and 4376 were identified by Killip as *D. mutisii* in the year 1932 (Blanco y Fernández de Caleyá & Del Valle Stervinou, 2009).

Mutis’s collection that Killip numbered “866”, a total of six specimens, was regarded as the type collection by Killip and a specimen was sent to US (US barcode 00119021); the remaining five specimens of this collection are currently housed at MA. However, it is also plausible that any of the other collections sent to Linnaeus by Mutis and identified as *D. mutisii* by Killip were original material as well, since Mutis did not indicate the place of collection in any case.

In Linnaeus’s own herbarium at LINN only one of Mutis’s specimens was found, number 806.3, in agreement with Savage’s (1945: 110) analytical catalogue of the Linnaean herbarium. This specimen is associated with the name *D. mutisii* and it bears the writing “mutisii” and “6” written by Linnaeus *filius* and Linnaeus *pater* respectively (M. Spencer, pers. comm.). The “6” on the sheet refers to the species number in the list that was sent to Mutis by Linnaeus *pater*, which was initially misidentified as *D. plumierii* when Linnaeus first studied

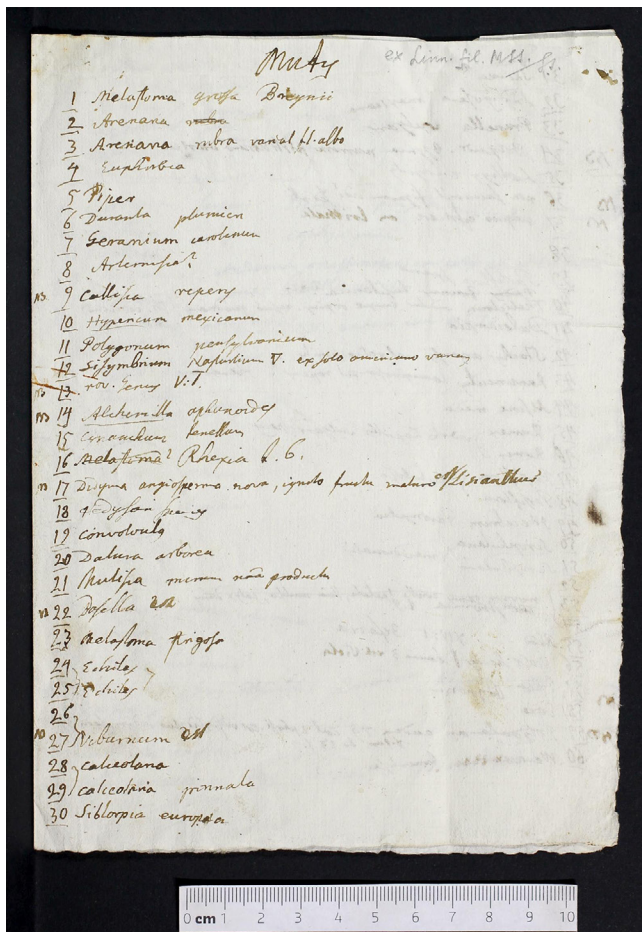


Fig. 1. List of the specimens collected by Mutis and seen by Linnaeus *pater* and *filius* which was then sent back to Mutis. Each specimen is identified by a number and name (Image by permission of the Linnean Society of London).



Fig. 2. Lectotype of the name *Duranta mutisii* L.f., Herb. Linn. No. 806.3 (LINN; <http://linnean-online.org/6917/>) (Image by permission of the Linnean Society of London).

the specimen (Fig. 1). The folder that contains the specimen has a note written by Linnaeus *filius* that reads “*Duranta mutisii*” (M. Spencer, pers. comm.). On the basis of the protologue and all the information that supports the fact that Linnaeus and his son studied the above mentioned specimen, it is here selected as the lectotype of *D. mutisii* (Fig. 2).

Duranta mutisii L.f., Suppl. Pl.: 291. 1782 – **Lectotype (designated here):** COLOMBIA. “Habitat in America meridionali”, *Mutis s.n.*, Herb. Linn. No. 806.3 (LINN!).

■ ACKNOWLEDGMENTS

The authors wish to thank Mark Spencer for checking herbarium specimen housed at LINN. Lynda Brooks (LINN librarian) is thanked for her help in searching historical documents related to correspondence between Linnaeus and Mutis. The manuscript benefited greatly by the revision of two anonymous reviewers and by the work of the editor. Support for this work by the Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Argentina, is gratefully acknowledged.

■ LITERATURE CITED

- Blanco y Fernández de Caleyá, P. & Del Valle Stervinou, A.** 1991. Herbarium mutisianum. *Fontqueria* 32: 1–173.
- Blanco y Fernández de Caleyá, P. & Del Valle Stervinou, A.** 2009. *Herbarium mutisianum*. Madrid: Consejo Superior de Investigaciones Científicas.
- Caro, J.A.** 1956. Las especies de *Duranta* (“Verbenaceae”) silvestres y cultivadas en la República Argentina. *Revista Argent. Agron.* 23(1): 1–28.
- Hoyos Sáinz, Luis de** 1949. *José Celestino Mutis: Naturalista, médico y sacerdote*. Madrid: Editora Nacional.
- Jarvis, C.E.** 2007. *Order out of chaos: Linnaean plant names and their types*. London: Linnean Society of London.
- Linnaeus, C.** 1753. *Species plantarum*, vol. 1. Holmiae [Stockholm]: impensis Laurentii Salvii. <http://dx.doi.org/10.5962/bhl.title.669>
- Linnaeus, C. (fil.)** 1782 (“1781”). *Supplementum plantarum: Systematis vegetabilium editionis decima tertiae, generum plantarum editionis sextae, et specierum plantarum editionis secundae*. Brunsvigae [Braunschweig]: Impensis Orphanotropheii. <http://dx.doi.org/10.5962/bhl.title.555>
- Múlgura, M.E., O'Leary, N. & Rotman, A.** 2012. *Dicotyledonae: Verbenaceae*. In: Anton, A.M. & Zuloaga, F.O. (eds.), *Flora Argentina*, vol. 14. Buenos Aires: Estudio Sigma.
- Pacheco, J.M.** 1975. *La ilustración en el Nuevo Reino*. Caracas: Universidad Católica Andres Bello.
- Sanders, R.W.** 1984. Provisional synopsis of the species and natural hybrids in *Duranta* (Verbenaceae). *Sida* 10(4): 308–318.
- Sanders, R.W.** 1989. *Duranta* L. Pp. 224–226 in: Howard, R.A. (ed.), *Flora of the Lesser Antilles, Leeward and Windward Islands*. Jamaica Plain: Arnold Arboretum, Harvard University.
- Savage, S.** 1945. *A catalogue of the Linnean herbarium*. London: Taylor & Francis.
- Smith, E.J.** 1821. *A selection of the correspondence of Linnaeus, and other naturalists, from the original manuscripts*, vol. 2. London: printed for Longman, etc. <http://bibdigital.rjb.csic.es/ing/Libro.php?Libro=4154>
- Tellería, M.T.** 1996. *El fondo Mutis depositado en el Real Jardín Botánico: Estado de la cuestión*. Pp. 13–23 in: *Homenaje académico en honor de José Celestino Mutis*. Anales de la Real Academia de Medicina, Número Extraordinario. Madrid: Real Academia de Medicina.