

# LECTOTYPIIFICATION OF *GUSTAVIA PUBESCENS* (LECYTHIDACEAE)

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**Abstract.** An amended authorship and lectotypification are proposed for *Gustavia pubescens* (Lecythidaceae), a treelet endemic to western Ecuador, and its IUCN conservation criteria are assessed.

**Keywords:** Ecuador, endemic, *Gustavia pubescens*, lectotypification, Lecythidaceae

*Gustavia pubescens* (Lecythidaceae) is a few-branched to unbranched treelet known from a dozen collections gathered from scattered populations in few moist and wet forests of western Ecuador. The species was originally published by Otto Karl Berg (1854) who provided, in the protologue, a citation of page 306 and plate 551, both borrowed from the then-unpublished manuscript of Flora Huayaquilensis (Tafalla, 1989). In the formal publication, the type locality reads “Habitat ad Guayaquil in Ecuador.” Berg credits Hipolito Ruiz as the author and collector of the type (“specimen Ruizianum in hb. Berol...”). As the type specimen has not been found in B, it is most likely that that historical collection was destroyed in the fire in the Berlin Botanical Museum during WWII (Robert Vogt, pers. comm.). The species has been cited as *Gustavia pubescens* Ruiz & Pav. ex O. Berg, but the selection of a lectotype has not been established (Mori in Prance and Mori, 1979).

In the herbarium of the Real Jardín Botánico de Madrid (MA), there is a specimen determined by R. Knuth that reads: “*Gustavia pubescens* sp. nov. Vulgo Membrillo de Montaña. F. H., D. 306, Ic. 551. Año de 1800.” The number of the description and plate are correctly cited in the protologue. However, Hipolito Ruiz and Jose Pavon did not collect in Guayaquil (at that time the colonial name for most of present-day coastal Ecuador), and the date of collection of the MA specimen does not match the itinerary of Ruiz and Pavon. In addition, they returned to Spain in 1788 and in 1789 were assigned to the “Oficina Botanica” of Madrid for the study of the floras of the conquered overseas territory. They never went back to America (Steele, 1964; Miller, 1970). I conclude that neither Hipolito Ruiz nor Jose Pavon can be regarded as collectors of *Gustavia pubescens*.

Specimens attributable to Tafalla were gathered between 1799 and 1803 in coastal Ecuador for the *Flora Huayaquilensis*. These specimens can be recognized by the annotation “F.H.” (Ibañez et al., 2006), and this annotation

is written on the label of an old collection of *Gustavia pubescens* archived at MA. The locality of the collection matches that mentioned in the original publication and supports the idea that Juan Tafalla is the collector. Moreover, Eduardo Estrella credits Tafalla for the authorship of the name, description 306, and plate 551 of *G. pubescens* in *Flora Huayaquilensis*. *Gustavia spathulata* was later added by Ruiz and Pavon for the same species (Tafalla, 1989). It is now known that Tafalla, during the time he spent collecting plants in coastal Ecuador, sent several shipments of his manuscripts, corresponding specimens, and plates for the *Flora Huayaquilensis* to Ruiz and Pavon in Madrid (Tafalla, 1989). They made Tafalla’s material available for Otto Berg in Berlin without crediting Tafalla (“Ruiz inedit” in Berg, 1856). The correct authorship for this species follows:

*Gustavia pubescens* Tafalla ex O. Berg, *Linnaea* 27:443 (1856). Ecuador: Los Ríos/Guayas: Hacia Guayaquil, 1800, J. Tafalla s.n. Type: B, destroyed; Lectotype, here designated: MA-813633.

*Gustavia spathulata* Ruiz & Pavon, *nomen*.

It is worth mentioning that plate 551 of *Gustavia pubescens* in the *Flora Huayaquilensis* (Tafalla, 1989), drawn at natural size, displays a terminal leafy branch bearing flowers with elongate pedicels 8–11 cm long. Other collections of *G. pubescens* usually have flowers with pedicels 5 to 7 cm long and to 10 cm in fruit. An exception is documented by a recent specimen (Cornejo et al. 9249, GUAY) that has pedicels 8–9 cm in flower and to 15 cm long in fruit in Cerro Cachari (1°46’S, 79°27’W), province of Los Ríos. That locality harbors the only known and isolated population of *G. pubescens* that matches the long-pedicellate flowers as seen and illustrated by Tafalla and his team during his historical expedition in 1800.

It is suggested that this species be assigned the IUCN conservation status of vulnerable, VU C1,2a(i) (IUCN, 2017).

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