 doi: http://dx.doi.org/10.15517/xw71n393

OVERLOOKED FOR ALMOST 200 YEARS: CLARIFICATION OF *VANILLA GUIANENSIS* (ORCHIDACEAE), A PRIOR NAME FOR *V. HOSTMANNII*, AND THE REINSTATEMENT OF *V. ACUTA*

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Abstract. The binomial *Vanilla guianensis*, published by Splitgerber in 1841, has long been debated as potentially based on a mixed collection of two taxa belonging to different *Vanilla* subgenera. Most of the literature has placed the name under *Vanilla* subg. *Membranacea*, while it has also been less frequently associated with *Vanilla* subg. *Vanilla*. In this study, we reassessed its typification and demonstrate that the original material and protologue are congruent and not based on a mixed collection of different species. We hypothesize *Vanilla guianensis* is a member of *Vanilla* subg. *Vanilla*, and that the name is conspecific with *V. hostmannii.* We further clarify the nomenclatural and typification status of *V. surinamensis*, a name published by Reichenbach on the basis of Splitgerber material, and identify Pulle as the first author to have effectively neotypified Splitgerber's *V. guianensis*. We reach this conclusion by conducting a comprehensive analysis of Splitgerber's *Vanilla* collections, supported by an examination of his herbarium catalogue and fieldbook, together with an extensive historical review of the post-Splitgerber literature. Finally, we discuss the implications of our proposal for the circumscription of these and other implicated taxa, including *Vanilla acuta.*

Resumen. El binomio *Vanilla guianensis*, publicado por Splitgerber en 1841, ha sido durante mucho tiempo objeto de debate por considerarse potencialmente basado en una colección mixta de dos taxones pertenecientes a diferentes subgéneros de *Vanilla*. La mayor parte de la literatura ha tratado este nombre dentro de *Vanilla* subg. *Membranacea*; con menor frecuencia, también se ha asociado con *Vanilla* subg. *Vanilla*. En este estudio, reevaluamos su tipificación y demostramos que el material original y el protólogo son congruentes y no están basados en una colección mixta de especies distintas. Proponemos que *Vanilla guianensis* es miembro de *Vanilla* subg. *Vanilla* y que el nombre es conespecífico con *V. hostmannii*. Asimismo, aclaramos el estatus nomenclatural y de tipificación de *V. surinamensis*, un nombre publicado por Reichenbach a partir de material de Splitgerber, e identificamos a Pulle como el primer autor que neotipificó de manera efectiva *V. guianensis* de Splitgerber. Llegamos a esta conclusión mediante un análisis exhaustivo de las colecciones de *Vanilla* de Splitgerber, respaldado por el estudio de su catálogo de herbario y cuaderno de campo, junto con una revisión histórica amplia de la literatura posterior a Splitgerber. Finalmente, discutimos las implicaciones de nuestra propuesta para la circunscripción de estos y otros taxones implicados, incluido *Vanilla acuta*.

Keywords / Palabras clave: nomenclatura, nomenclature, Orchidaceae, Reichenbach, Splitgerber, Surinam, Suriname, Vanilloideae

ORCID of the Author: ADP, APK, FP
Received 1 September 2025; accepted for publication 15 December 2025. First published online: 19 December 2025.

Introduction. The pantropical genus *Vanilla* Mill. (Orchidaceae: Vanilloideae) is among the most economically important plant crops worldwide. This importance is primarily due to the cultivation of a single species, *Vanilla planifolia* Andrews, native to Central America. The fruits of *V. planifolia* produce vanillin and other aromatic compounds highly valued across multiple industries, contributing to a global market estimated at USD 1.26 billion (FAO, 2022). Although *V. planifolia* is the main species cultivated for commercial use, the genus comprises *ca*. 128 species distributed throughout tropical regions, with particularly high species richness in the Neotropics (Cameron, 2011; Karremans *et al.*, 2020). From an evolutionary perspective, *Vanilla* is also notable for its suite of traits that are unique among orchids. These include flexible, often long climbing stems; flowers that typically form a floral tube through partial fusion of the labellum and column; and fleshy, often fragrant fruits containing sclerified large seeds (Cameron, 2003; Dressler, 1993; Soto Arenas & Cribb, 2010a).

Based on recent morphological and molecular analyses (Karremans *et al.*, 2025), the genus *Vanilla* has been re-circumscribed into four distinct groups: *Vanilla* subg. *Vanilla*, *Vanilla* subg. *Gondwana* Karremans, Damián & Pupulin, *Vanilla* subg. *Membranacea* Karremans, Pupulin & Damián, and *Vanilla* subg. *Tethyos* Karremans, Damián & Pupulin. Among these, the subgenera *Vanilla* and *Membranacea* encompass the largest number of Neotropical species. The former includes all known fragrant taxa, while the latter is regarded as one of the least studied and most taxonomically overlooked lineages within the genus. This lack of attention is partly attributed to its non-fragrant species and is reflected in the limited literature regarding its biology, ecology, and especially taxonomy (Damián-Parizaca *et al.*, 2022; Soto Arenas & Cribb 2010a). Notably, several species names remain unused or unrecognized in taxonomic treatments, and the group is underrepresented in broader discussions about the genus (Damián-Parizaca *et al.*, 2025b). Members of *Vanilla* subg. *Membranacea*, also referred to as the membranaceous clade, can be distinguished from their Neotropical counterparts by having membranous leaves (*vs*. typically thick and fleshy), greenish-white flowers (*vs*. yellow to orange), the absence of a penicillate callus (*vs*. present), and a column attached to the labellum only at its base (*vs*. deeply connate, forming a distinct floral tube) (Damián-Parizaca *et al.*, in press).

One of the earliest names historically associated with the membranaceous vanillas is *Vanilla guianensis* Splitg., described in 1841 by the Dutch botanist Frederik Louis Splitgerber, based on specimens he collected in Suriname. The name has long been suspected to be based on a mixed collection comprising fragrant fruits and membranaceous-like flowers (Rolfe, 1896). This confusion has persisted to the present, mainly due to the absence of an illustration or reference to a specific specimen in the original protologue. However, during the preparation of the monograph on membranaceous *Vanilla* species (Damián-Parizaca *et al.*, in press), we found no support for the mixed-origin hypothesis of *V. guianensis*. Following a detailed examination of Splitgerber's original material, along with a critical review of his field notes, we argue that he did not intend to describe a membranaceous species but rather a fragrant one. Accordingly, we clarify the taxonomic identity of *V. guianensis* within the fragrant clade (*Vanilla* subg. *Vanilla*) and examine the implications of this re-circumscription for names previously treated as its synonyms, such as *Vanilla acuta*. In addition, we provide live photographs of *V. guianensis* and a diagnostic key to distinguish it from other morphologically similar species.

Materials and methods. Our analyses and conclusions are primarily based on two main sources: herbarium specimen revision and historical literature. For the former, we conducted a comprehensive examination of specimens through direct visual inspection at the following herbaria: AMO, AMES, B, BM, BR, CR, F, FLAS, K, K-L, MA, MEXU, MO, MOL, NY, SEL, UFV, US, USM, W, W-R, and WIS, supplemented by high-resolution images from: BAB, BIGU, FCQ, FTG, G, GH, HA, HB, HJBG, HOXA, JBB, L, LBMBP, LAGU, LL, LY, P, PRG, QCNA, QCNE, R, SCP, SP, SPFR, and UVAL. Particular attention was given to L herbarium, where most of Splitgerber's collections are housed, either directly or accessible through its online database (BioPortal, 2025).

For the literature review, we compiled all relevant documents that mention *Vanilla guianensis* or Frederik Louis Splitgerber, including protologues of all species discussed herein, primarily obtained from BHL (2025).

Figure 1. Illustrations attributed to *Vanilla guianensis* Splitg. in de Vriese (1856a). **A**. Plate V, plant and inflorescence. **B**. Dissection flower and fruits.

Additionally, we studied Splitgerber's field notebooks held at the Leiden University Library, which were digitized for this study upon request. A previous study briefly examined these fieldbooks, bringing their existence to our attention (de Vriese, 2022).

To further clarify the circumscription of *V. guianensis*, we designated an epitype following the International Code of Nomenclature (ICN) guidelines (Turland *et al.*, 2025). We also provide a list of revised species consistent with our species concept of *V. guianensis* for reference. Moreover, we include detailed photographic documentation of the species through a Lankester Composite Dissection Plate (LCDP), and an artificial key for the *V. guianensis* group (*sensu* Soto Arenas & Cribb, 2010b).

Results and Discussion

Search for *Vanilla guianensis* original material. Splitgerber (1841) did not specify the nomenclatural type of *Vanilla guianensis* at the time of publication. Although his protologue was extensive, he did not include any direct or indirect references to an illustration or specimens that could constitute original material. Our current concept of *V. guianensis* is largely based on illustrations by de Vriese's (1856 a, b), which were published a few years after Splitgerber passed away. Subsequent authors have accepted the illustrations as depicting original material under the assumption that they represented the common *Vanilla* found in Suriname (Reichenbach, 1859; Soto Arenas & Cribb, 2010b). Unfortunately, we could find no direct link between de Vriese's illustrations and Splitgerber's original material of *V. guianensis*. To make matters worse, de Vriese's plates represent a mixed collection, depicting flowers of a species belonging to *Vanilla* subg. *Membranacea* alongside thicker, triangular fruits typical of *Vanilla* subg. *Vanilla* (Fig. 1). Rolfe (1896) suggested the possibility of a mixed collections of *V. guianensis*, but instead of referring to de Vriese's illustrations, he claimed that it was Splitgerber himself who had combined the two taxa in his original work. Soto Arenas & Cribb (2010b) agreed with Rolfe's interpretation of two discordant elements, both in the original description by Splitgerber and the illustrations by de Vriese.

FIGURE 2. Splitgerber *Vanilla* collections. **A**. *Splitgerber 409* (W0195938). **B–C**. *Splitgerber 515* (L0778311, W19365). **D**. *Splitgerber sn* [possibly *Splitgerber 529*] (L0778313). **E**. *Splitgerber 925* (W19367). **F**. *Hostmann 1174* (W19375). Photographs by Alexander Damian-Parizaca (C, E, F) and by permission of the Natural History Museum Vienna (A), and The Naturalis Biodiversity Center, Leiden (B, D).

Upon analyzing Splitgerber's field notes, we found that he collected four *Vanilla* specimens during his time in Suriname, collection numbers *Splitgerber 409*, *515*, *529*, and *925* (Fig. 2–3). Additionally, we traced a fifth collection made by Jacob, one of Hostmann's collectors. A specimen was eventually sent to Splitgerber, who assigned it to his number *1174* (Fig. 2F). We were able to locate and unambiguously assign five specimens to these collection numbers: *Splitgerber 409* represented by

Figure 3. Splitgerber fieldbook *Vanilla* collections. **A–B**. *Vanilla guianensis*. **C**. *Vanilla aromatica*. **D**. *Vanilla palmarum*. **E**. Hostmann collection given to Splitgerber. **F–G**. Splitgerber Catalogus Plantarum in Herbario dated 1836 and 1842 respectively. Images by permission of the Collections Archives and Images of The Naturalis Biodiversity Center, Leiden.

the voucher W-R-0195938; *Splitgerber 515*, duplicates represented by L0778311 and W-R-019365; *Splitgerber 925* represented by W-R-019367; and *Splitgerber 1174* represented by W-R-019375) (Fig. 2). It is important to mention that the labels of Splitgerber's specimens in Reichenbach's herbarium in Vienna (W-R) are handwritten by the latter rather than the former, except W-R-019375, which besides Reichenbach's label also carries a slip with the number *Splitgerber 1174* in Splitgerber's handwriting. It is unclear how Reichenbach obtained the information to add to each label, which otherwise lacks any numbering. It is possible that all Splitgerber's specimens in Vienna originally carried the same slips with numbers as *1174*, having been either lost or removed at some point. Furthermore, it is possible

that the specimens came accompanied by correspondence from Leiden that included the information that Reichenbach afterwards transcribed to the labels. Either way, although the labels are in Reichenbach's hand rather than Splitgerber's, the label data were likely supplied to Reichenbach directly because it is not found in either the protologue or the fieldnotes.

The protologue of *V. guianensis* offers little information about which of these specimens he used as original material, but there are clues. Of his *Vanilla* collections, only numbers *409* and *529* are consistent with the protologue. Splitgerber links them directly to his fieldnotes, comparing number *409* to *529* ("*confer N 529*") (Fig. 3A). It is indeed the specimens with the number *Splitgerber 409* (W-R-0195938) and the unnumbered *H.L.B 905,88-84* (L0778313) that best fit the protologue in having broadly elliptic, acuminate leaves, long compact inflorescences, and thick, slightly arcuate fruits (Fig. 2A, D). The protologue indicates that the species blooms in May and June (Majo et Junio in Latin) and this is exactly what can be read on the label under *Splitgerber 409* (W-R-0195938), albeit in Dutch (Mei, Juni). Also noted in the protologue is that the species is "non raro" (common) and "flores albidi" (white flowers), both of which are among the few notes he lists in his fieldbook under number *529*, in Dutch ("zeer gemeen", very common, and, "bloemen witachtig", whitish flowers). This suggests that Splitgerber's concept of *V. guianensis* is in fact based on both his collections, *409* and *529*. One might be tempted to infer, given its morphological similarity with the specimen W-R-0195938 in Vienna, that the specimen *H.L.B 905,88-84* (L0778313) (Fig. 2D) represents Splitgerber's collection number *529*. The latter is the only one of his field numbers referred to a *Vanilla* for which we could not find any voucher specimen, and L0778313 is the only one of his specimens that bears flowers, something Splitgerber described in the protologue. Unfortunately, this specimen lacks the original label, as is the case with several Splitgerber sheets (de Vriese, 2022). Therefore, there is no indication that can directly associate it to the name *V. guianensis* or *Splitgerber 529*, and thus we cannot unambiguously list it as original material.

Although we could not confirm unambiguously that L0778313 corresponds to *Splitgerber 529*, the sheet nonetheless provides several insights pertinent to future investigations of Splitgerber's material. Evidence from Splitgerber catalogues dated 1836 and 1842 (Fig. 3F–G), preserved as part of Herb. Splitgerber when his collection was acquired by the Rijksherbarium (now Naturalis Biodiversity Center, Leiden) (van Steenis-Kruseman, 1979), indicates that three *Vanilla* specimens attributed to Splitgerber were present in the Rijksherbarium when the Splitgerber herbarium was finally incorporated in 1871. Furthermore, *V. palmarum* (*Splitgerber 925*) appears to have been lost from L, a conclusion supported both by its listing in the Splitgerber catalogue and by Pulle (1906), who cited a complete specimen at L that is no longer extant; the only surviving duplicate is now housed at W (Fig. 2E). The unlabeled Splitgerber specimen at L (L0778313) was examined by Cogniaux, as indicated by his handwriting on the sheet (Probst, 2025), yet it was inexplicably omitted from his 1893 treatment, presumably because the absence of an original label rendered it unsuitable for formal inclusion. Additionally, Splitgerber's *Vanilla* material appears to have remained unmounted until the early 20th century. For instance, the catalogue label of L0778313 indicates that the specimen was mounted on 29 March 1905 (the 88th day of 1905), recorded as "Herb. Lugd. Bat. N 905, 88–84," (see Thijsse *et al.*, 2023, for more examples). This timing coincides with the appointment of J.M. Janse as director of the Rijksherbarium and the imminent relocation of the institution to a new building. Before this administrative reorganization, several collections were prone to loss or mixing because numerous specimens remained stored together and unmounted, a situation that changed markedly with the shift toward a more systematic system using designated boxes. This historical context most likely also explains the loss of some Splitgerber material.

***Vanilla guianensis* typification**. To establish an appropriate typification for *V. guianensis*, it is first necessary to consider any inadvertent lectotypifications that may have occurred prior to 2001. The earliest relevant reference to material attributable to Splitgerber's *V. guianensis* is found in Reichenbach (1859), who examined specimens sent from Leiden and listed three *Vanilla* species, including one he called "*Vanilla surinamensis* Splitg.", a name that has not otherwise been used. Although Reichenbach cited the protologue of *V. guianensis* as "Ann. Sci. Nat. Bot. 15, 1841" with an incorrect page number, he explicitly associated *Split-*

gerber 409 with that publication, and the corresponding sheet in his herbarium bears a label in his own handwriting reading "*V. guianensis* Splitg." with a correct citation to the protologue. Although Reichenbach most probably did not intend to describe a new taxon, the name *V. surinamensis* fulfills all criteria for valid publication under Arts. 32–45 of the Code (Turland, 2025). The differences between *V. surinamensis* and *V. guianensis* extend beyond the scope of typographical or orthographical error as defined by Arts. 60–61, and the name must therefore be treated as validly published. Moreover, it is also legitimate, as none of the provisions for illegitimacy or superfluity under Art. 52 apply. Although one might consider invoking Art. 52.3 because Reichenbach cited Splitgerber's protologue, this interpretation is untenable because he did not reproduce any sequential element or exact wording traceable to Splitgerber's original diagnosis; in fact, his diagnostic statement differs from that of Splitgerber (1841). Consequently, *V. surinamensis* must be regarded as a valid and legitimate name, typified by Reichenbach on the basis of *Splitgerber 409*.

The question therefore remains whether an inadvertent lectotype or neotype for *V. guianensis* might exist. Three later authors cited *V. guianensis*, each introducing potential, but ambiguous, elements relevant to its typification. Cogniaux (1893), in his treatment of Brazilian *Vanilla*, included *Vanilla guianensis* and listed four specimens, including *Splitgerber 409*, yet did not explicitly designate any as a type or type-equivalent. Rolfe (1896) interpreted *V. guianensis* only in part, subsuming it within his broader concept of *V. inodora*, but incorrectly reassigned *Splitgerber 409* to *V. palmarum*, along with three additional, unrelated specimens. Subsequently, Pulle (1906), in his *Enumeration of the Flora of Suriname*, followed Rolfe's taxonomic framework and, under his interpretation of *V. inodora*, listed both *V. surinamensis* (citing *Splitgerber 409*) and *V. guianensis*. For the latter, he cited an unlabeled specimen (L0778313), which he attributed to Splitgerber as "H.L.B. 905, 88–84 named *V. guyanensis* Splitg." We therefore considered whether Pulle's citation of specimen L0778313 might constitute an inadvertent neotype, given that, although atypical for the period, he explicitly provided a specimen, a herbarium, and a name that can be unambiguously correlated.

Our analysis of Pulle's treatment indicates that his use of the term "named" consistently represents his transcription of labels present on herbarium sheets, typically accompanied by complete bibliographic citations, a pattern confirmed by numerous examples throughout his *Enumeration*. He likewise employed "named" when referring to taxa cited within earlier publications, adding "in" in such cases, as illustrated by his treatment of *Adiantum tetraphyllum*, where he listed a specimen as "named: *A. pachysorum* Reichb. in Weigelt, *Plant. Surin.*" Accordingly, his citations should be interpreted as references to material available to him under a given name, rather than as definitive indications of original material or deliberate type selection. Although the current Code explicitly defines the requirements for effective typification and discourages mechanical procedures, criteria that would apply to Pulle's enumerations, such constraints did not exist at the time; indeed, prior to 1990 the Code clarified that citation of herbaria, collections, or institutions was not required for valid typification (Art. 9.22). Consequently, Pulle's (1906) citation, although clearly inadvertent, constitutes a valid typification, and since no original material attributable to *V. guianensis* is extant, *Splitgerber 409* being precluded as it serves as the type of *V. surinamensis*, we regard Pulle's listing as an inadvertent neotype designation.

Correct application of the name *V. guianensis*. The vegetative and floral characteristics inferred from the protologue and type of *Vanilla guianensis* differ markedly from those of the taxon to which this concept has often been applied, which is a member of *Vanilla* subg. *Membranacea* (e.g. Damián-Parizaca, 2019; Householder *et al.*, 2010; Karremans *et al.*, 2020; POWO, 2024; Sambin & Aucourd, 2024; Sambin & Ravet, 2021; Soto Arenas & Cribb, 2010b; Szlachetko & Kolanowska, 2020; Szlachetko *et al.*, 2012, 2017). The protologue provides a detailed diagnosis, defining *V. guianensis* by its fleshy, non-membranous, elliptic-oblong, acuminate leaves, 15–20 × 5–6 cm, internodes 5–10 cm long, axillary inflorescences bearing 5–15 flowers with acute, ovate bracts, 15–20 cm long, a triquetrous and sub-falcate fruit, whitish to yellowish flowers, lanceolate, sub-acuminate sepals with a revolute apex and slightly undulate margins measuring *ca.* 6.0 × 0.6 cm, similar petals, and a labellum that is shorter than both. The base of the labellum is laterally connate to the column, forming a funnel, with a

broadly ovate lamina, an apex that is nearly acute to sub-acuminate, curled edges, and a disc bearing three thick, elevated, longitudinal lamellae that merge at the apex.

These features place *V. guianensis* among a small group of species within *Vanilla* subg. *Vanilla* that includes *V. hostmannii* Rolfe, *V. cribbiana* Soto Arenas, *V. dressleri* Soto Arenas, *V. corinnae* Sambin & Chiron, *V. sekut* Damián, H.Garzón & A.Bentley, *V. rivasii* Molineros, R.T.González, Flanagan, & J.T.Otero and *V. weberbaueriana* Kraenzl., collectively referred to as the *V. hostmannii* group by Soto Arenas & Cribb (2010b) and here renamed the *V. guianensis* group. The group is characterized by a distinctive combination of traits, including distichous floral bracts with a strongly papillose rachis; orange to yellowish flowers with sepals conspicuously papillose on the adaxial surface; and a short, penicillate callus, usually positioned in the lower third of the labellum, with several papillose, congested, and thickened veins toward the apex. Among these taxa, *V. guianensis* is most closely allied to *V. hostmannii*, which was also described from Suriname (Fig. 4 C–E). The two species share densely arranged inflorescences, whitish sepals and petals, and a broadly ovate labellum with an obtuse to sub-acuminate apex, bearing 3 longitudinal warty keels. This contrasts with the flabellate labellum with a broadly rounded apex found in *V. corinnae*, the subrhombic labellum of *V. dressleri*, the presence of more than five papillose keels and lax inflorescences in both *V. cribbiana* and *V. dressleri*, the conspicuously trilobed labellum with triangular midlobe of *V. sekut*, and the rounded lateral labellum lobes and oblong to rounded midlobe found in *V. weberbaueriana* (for a more detailed comparisons of these species refer to Damián-Parizaca *et al.*, 2025a). The similarity between *Vanilla guianensis* and *V. hostmannii* was noted by Hoehne (1945), who in his treatment of Brazil placed the latter under the synonym of *V. guianensis* with a question mark (?) and later stated that he was "...unaware if Rolfe compared *V. hostmannii* with *V. guianensis*, which, based on its details and description, is very similar to the scarce data provided in his description". Our current hypothesis, grounded in a critical examination of the protologues and the corresponding type materials, is that indeed these two taxa refer to the same species, as such, the name *V. guianensis* has priority, and *V. hostmannii* must be placed in synonymy.

By contrast, the membranous-leaved taxon to which the name *V. guianensis* has frequently been misapplied (auct. non Splitg.) remains in need of the correct name. This taxon is characterized by distinctly membranaceous leaves, small floral bracts, and flowers with lanceolate, acute sepals and petals, featuring a hexagonal labellum when extended, with three longitudinal warty keels that converge at the apex. Two names described from Guianan material match that circumscription: *V. acuta* Rolfe, described from Suriname (Rolfe, 1896), and *V. latisegmenta* Ames & C.Schweinf. from Guyana (Ames & Schweinfurth, 1925), the first having priority over the second.

Nomenclatural Summary

Vanilla guianensis Splitg. (1841: 279). NEOTYPE, designated by Pulle (1906): Suriname, without collector data, H.L.B 905, 88-84 (L 0778313!). EPITYPE: Guyana, 1898, *E. F. im Thurn 65* (epitype, designated here: K001551124!).

Vanilla surinamensis Rchb.f. (1859: 321). Type: Suriname, 1838, *Splitgerber 409* (W-R-0195938!).

Vanilla hostmannii Rolfe, J. Linn. Soc. Bot. 32: 462. 1896. TYPE: Suriname, *Hostmann 306* (lectotype, designated by Damián-Parizaca *et al.* 2025a: K000463756!, isolectotype: K-LINDL!)

Vanilla porteresiana Veyret & Szlach. Bull. Mus. Natl. Hist. Nat., B, Adansonia Sér. 4, 16(2–4): 219 (1995). TYPE: French Guiana, crique Mulet mort, Sud de Saul, zone basse, 25 February 1966, *Oldeman 2087* (holotype: P04026364!, isotype: CAY-179135)

Vanilla barrereana Veyret & Szlach. Bull. Mus. Natl. Hist. Nat., B, Adansonia Sér. 4, 16(2–4): 220 (1995). TYPE: French Guiana, Haut Tampoc, Saut Pierourou, sur les berges et dans les petiles iles au miliey du saut, 27 March 1977, *Cremers 4523* (holotype P04026365, isotype: CAY-not seen!)

Distribution: Native to the Guiana Shield in the lowland forests of Brazil, French Guiana, Guyana, Suriname, and Venezuela.

Illustrations: as "*Vanilla cribbiana*" in Koch *et al.* (2013); as "*Vanilla gardneri*" in Silva & Silva (2010); and as "*Vanilla pompona*" in Romero (1998).

Figure 4. *Vanilla guianensis* Splitg. **A**. Epitype designated based on *E.F. im Thurn 65* (K-001551124!). **B**. Lankester Composite Dissection Plate (LCDP) based on *R. Menchaca MEX07* (CITRO!). **C**. Lectotype of *Vanilla hostmannii* Rolfe based on *Hostmann 306* (K000463756!). **D**. Flower close-up of the *V. hostmannii* lectotype. **E**. Flower close-up of the *V. hostmannii* isolectotype (K-LINDL!). **F–G**. Flower close-up of *V. guianensis* epytype. Photographs by Alexander Damián-Parizaca (A, C–G) and Miguel Lozano Rodríguez (B).

Notes: Pulle (1906) neotype coincides well with *V. guianensis* protologue and with the species of *Vanilla* subg. *Vanilla*, because of the leathery (not membranous), elliptic-oblong and subacuminate leaf, the short axillary inflorescence on which some ovate and acute floral bracts are preserved, and the triquetrous, slightly falcate fruit. Although, Pulle material have some flowering material, this is extremely fragmentary. In consideration of the predominantly incorrect interpretation of this species, we therefore believe it appropriate to select a fertile epitype. The selected specimen (*E.F. im Thurn 65*), collected from the Guianas, bears numerous flowers and matches the protologue and neotype in several key traits, including its broadly elliptic, acuminate leaves; flowers with sepals 6–9 cm long; an ovate labellum with a obtuse to subacuminate apex; a disc with three thick, elevated lamellae that converge at the apex; and a subfalcate fruit.

In a previous account (Damián-Parizaca & Mitidieri-Rivera, 2023), we reported some of the specimens cited below as *V. dressleri*, based on a limited comparative assessment. This is corrected herein, as *V. dressleri* is currently known only from Costa Rica, across Panama, and southward through the Chocó biogeographic region along the Pacific coasts of Colombia and Ecuador, with an outlier population in the foothills of the Colombian Central Cordillera (Flanagan *et al.*, 2022).

Additional specimens examined: BRAZIL. Para: Vitoria do Xingu, 10 Nov. 2012, *J. Batista 370* (MBM-405595!); Belem, Utinga, 3 Nov. 1938, *Markgrat 3822* (RB00260219!); Along edge of Rio Cauaburi (in high forest on terra firma) between Rio Maturaca and Rio Ya, Febr. 3, 1966, *N. Silva & U. Brazao 60960* (NY02695607!, US00319636!), Roraima, Canto Galo, Rio mucajai, between Pratinha and Rio Apiau, 22 Jan. 1967, *G.T. Prance et al. 3988* (NY01414978!); Para, Rio Itapacura, BR 163, 24 Nov. 1977, *G.T. Prance et al. 25739* (US00319614, K000940256!, MG60339!); Para, *Wullschlägel 1132* (BR-000032880410!, W-R 35505!, W-R 35454!). FRENCH GUIANA. Layon Eaux Claires: Region de Saul, 250 m, 16 Febr. 1993, *G. Cremers 13016* (NY04170422!, CAY-214558); Counami, Foret primaire degrade, 22 March 200, *Prevost M.-F & Barthelemy D. 3820* (NY04170453!); without exact locality, Jan. 2025, *R. Menchaca MEX07* (CITRO!). GUYANA, Mabuina ck, Yarikita Ck, Amacur River, Northwest District, at sea level, 27 July 1908, *C. Wilgress Anderson 71* (K-001551125!); Northwest District, Wini River, Marabo Shortcut, 3 Febr. 1922, *J.S. de la Cruz 1298* (NY01414948!); Edu Creek, 1898, *E.F. im Thurn 222* (K001551013). SURINAME. Border of Marowijne above base camp. 14 Febr. 1949, L. *Lanjouw et J.C. Lindeman 2074* (K-000395974!). VENEZUELA. Amazonas: Rio Orinoco, Along river just below mouth of Rio Cunucunuma, 20 June 1959, *J.J. Wurdack & L.S. Adderley 43074* (US00319616!, NY01075148!); Monagas. Reserva Forestal de Guarapiche. (Caño Colorado), July 1969, *L. Ariesteguieta et al. 7233* (NY04170463!, US00319635!).

Additional records: FRENCH GUIANA. Cayene: Macouria, 10 Feb. 2022 (Delamarche, 2022); Roura: 4 Feb. 2020 (Cocchi, 2020); Saint-Laurent-du-Maroni: State Saül, 8 March 2019 (Dewynter, 2019). GUYANA, without exact locality, 3 Feb. 2020 (Le Roux, 2020).

Vanilla acuta Rolfe (1896: 453). TYPE: Suriname, Marowyne: Aug 1846, *Kappler 1843* (Lectotype designated by Damián-Parizaca *et al.* 2025b: K-LINDL! without barcode; isolectotypes: W barcode W62925!, P barcode P00612143!). EPITYPE: Guyana (British Guiana), River Berbice, illustration by Robert H. Schomburgk plate 216-267 (epitype designated by Damián-Parizaca *et al.* 2025b: BM, photograph of the epitype at NY, tracings K barcodes K001551121!, W barcodes W19383!, W19384!).

Vanilla latisegmenta Ames & C.Schweinf. (1925: 2). Type. Guyana (British Guiana), Upper Rupununi River, near Dadanawa, 29 May 1922, *J. S. de la Cruz 1404* (holotype: AMES barcode 00090756!; isotypes: GH barcode GH00090757!, US barcode US00093324!, MO barcode MO2602185!).

Notes: *Vanilla acuta* is recognized here as the correct name for the membranaceous taxon to which *Vanilla guianensis* was previously misapplied. *Vanilla acuta* was recently lectotypified by Damián-Parizaca *et al.* (2025b), and a complete description, including ecological and additional taxonomic details, will be provided in the forthcoming monograph on *Vanilla* subg. *Membranacea* (Damián-Parizaca *et al.*, in press.).

Artificial Key to the *Vanilla guianensis* group

1. Inflorescences dense, with up to 60 flowers; typically, 4–10 open simultaneously; sepals adaxially densely verrucose ..... *V. weberbaueriana*
1′. Inflorescences lax, with up to 15 flowers; usually 1–3 open at a time; sepals adaxially sparsely verrucose 2
2. Sepals and petals with acute to subacute apices 3
3. Lateral sepals partially fused at the base, about one-third of their total length; labellum with flabellate margins, midlobe conspicuously bilobed; callus with 7–8 thickened keels ..... *V. rivasii*
3′. Lateral sepals free; labellum with entire margins, midlobe variously triangular; callus with 3–5 main thickened keels 4
4. Floral tube opening ovoid, wider than long; sepals up to 9 cm long; labellum with sinuate apical margins, midlobe broadly triangular; endemic to the Guiana Shield ..... *V. guianensis*
4′. Floral tube opening circular; sepals up to 8 cm long; labellum with flat, non-sinuate apical margins, midlobe shortly triangular; known from the Amazonia ..... *V. sekut*
2′. Sepals and petals with obtuse to rounded apices 5
5. Labellum subtrilobed to rhombic; endemic to the Guianas and Chocó 6
6. Sepals and petals white abaxially; petals rounded; labellum subtrilobed to entire, up to 56 mm long; callus with 5 thickened veins toward the apex ..... *V. corinnae*
6′. Sepals and petals yellowish abaxially; petals obtuse; labellum subrhombic, up to 69 mm long; callus with up to 11 thickened veins toward the apex ..... *V. dressleri*
5′. Labellum conspicuously trilobed; endemic to Central America ..... *V. cribbiana*

Acknowledgements. We extend our sincere gratitude to the directors and curators of all referenced herbaria for their invaluable support during our visits and for facilitating access to photographic materials. Special appreciation goes to Tinde van Andel (Naturalis Biodiversity Center) and the Collection Archives and Images Department for their assistance in scanning Splitgerber's fieldbook. We are particularly grateful to the Department of Botany at the University of Wisconsin–Madison for its financial support, especially to the Hugh H. Iltis Graduate Student Research Award Committee and Mr. Theodore S. Cochrane for their generous contributions. The first author also acknowledges funding from the American Society of Plant Taxonomists (ASPT), the Botanical Society of America (BSA), the Systematics Association, and the American Orchid Society (AOS). Special thanks to CONCYTEC-PROCIENCIA for supporting the first author's research through the program "E041-2023-01 Basic Research Projects" [contract number: PE501082530-2023]. Finally, we thank Miguel Lozano Rodriguez for sharing photographs of *Vanilla guianensis.*

Author contribution. ADP: Conceptualization; Investigation; Writing of the original draft. APK and FP: Data curation; Writing, Reviewing and Editing.

Funding. Department of Botany, University of Wisconsin-Madison; ASPT; BSA; AOS; CONCYTEC-PROCIENCIA.

Conflict of interest. No conflict of interest to declare.

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