European Journal of Taxonomy 1043: 103–117
https://doi.org/10.5852/ejt.2026.1043.3211
europeanjournaloftaxonomy.eu
ISSN 2118-9773
2026 · Marcusso G.M. *et al.*

Received: 17 September 2025 • *Accepted: 3 February 2026* • *Published: 5 March 2026*
Topic editor: Frederik Leliaert • *Desk editor: Lizeth Alonso*

Research article

Two new species of *Acianthera* (Orchidaceae) from the Brazilian Amazon

Gabriel Mendes MARCUSSO[1], Leonardo BIRAL[2], Layon Oreste DEMARCHI[3] & Charles E. ZARTMAN[4,*]

[1] Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.
[2] Universidade Federal de Goiás, Goiânia, GO, Brazil.
[3] Instituto Nacional de Pesquisas da Amazônia, Grupo de Ecologia, Monitoramento e Uso Sustentável de Áreas Úmidas, Manaus, AM, Brazil.
[4] Instituto Nacional de Pesquisas da Amazônia, Coordenação de Biodiversidade, Manaus, AM, Brazil.

[*] Corresponding author: gabrielmarcusso@hotmail.com
[2] Email: leobiral@hotmail.com
[3] Email: layon.lod@gmail.com
[4] Email: chaszartman@gmail.com

Abstract. *Acianthera* Scheidw. is a genus of Orchidaceae Juss. composed of approximately 300 species, nearly half of which occur in Brazil. To date, only eight species of the genus have been recorded from the Brazilian Amazon. A recent botanical excursion to Serra do Divisor National Park in the state of Acre, in the extreme western portion of the Brazilian Amazon, resulted in the discovery of two new species of *Acianthera*: *A. amazonica* Marcusso sp. nov. and *A. nukiniana* Marcusso sp. nov. Here, we describe these new species and present photographs, illustrations, taxonomic notes and comments on their morphological relationships, and environmental preferences. In addition we assign the conservation status and provide a geographic distribution map, as well as an identification key for *Acianthera* species from the Brazilian Amazon.

Keywords. Acre, Amazon, epiphytes, Pleurothallidinae, Serra do Divisor.

Marcusso G.M., Biral L., Demarchi L.O. & Zartman C.E. 2026. Two new species of *Acianthera* (Orchidaceae) from the Brazilian Amazon. European Journal of Taxonomy 1043: 103–117. https://doi.org/10.5852/ejt.2026.1043.3211

Introduction

Orchidaceae Juss. is one of the richest plant families comprising more than 30 000 species worldwide, classified into 22 tribes and 49 subtribes (Perez-Escobar *et al.* 2024). The Neotropical endemic subtribe Pleurothallidinae Lindl. ex G.Don is the most diverse within the family (Pridgeon *et al.* 2005; Karremans & Vieira-Uribe 2020). *Acianthera* Scheidw., consisting of ca 300 species (nearly half of them present in Brazil), is the fifth richest genus of the subtribe (Karremans *et al.* 2016, 2023; Karremans & Vieira-Uribe 2020; Flora e Funga do Brasil 2025), and comprises epiphytes, lithophytes, and rarely

terrestrial species distributed from Mexico and the Antillean to northern Argentina and Uruguay. *Acianthera* is morphologically characterized by a caespitose to shortly repent habit; stem terete, laterally compressed, or triangular in cross-section; coriaceous to fleshy leaves; inflorescence racemose or single-flowered emerging from the apex of the stem; flowers verrucose and/or pubescent, with the lateral sepals usually concavely fused; two obovate or lanceolate petals, shorter than the sepals; a lip spatulate, elliptical, ovate, or ovate-oblong, with the base usually unguiculate, bicallous, with lateral lobes and two auricules at the base; column cylindrical, with a foot; anther apical, incumbent, with two pollinia united by a flat, rounded caudicles, and stigma ventral (Luer 2004; Pridgeon *et al.* 2005; Karremans & Vieira-Uribe 2020).

The recent molecular phylogenetic studies for the genus hypothesize that *Acianthera* consists of four monophyletic lineages recognized as the following subgenera: *Acianthera* subg. *Acianthera*, *A*. subg. *Antilla* (Luer) Karremans, *A*. subg. *Brenesia* (Schltr.) Karremans, and *A*. subg. *Kraenzlinella* (Kuntze) Karremans (Karremans *et al.* 2016). *Acianthera* subg. *Acianthera* contains the majority of the species (ca 268 species), although complete lists are not yet available (Karremans *et al.* 2016).

Taxonomic treatments of *Acianthera* are scattered or partial (e.g., Luer 2004; Chiron & Bolsanello 2015), but recent advances have been made (e.g., Rodrigues *et al.* 2015; Solano-Gómez 2015; Damián *et al.* 2018; Solano & Karremans 2023). Although Brazil harbors the highest number of species of the genus (Karremans & Vieira-Uribe 2020), the monograph of the Brazilian *Acianthera* is still incomplete (Flora e Funga do Brasil 2025), and several species concepts remain to be evaluated (Karremans & Vieira-Uribe 2020). In Brazil, most species occur in the Atlantic Forest (Flora e Funga do Brasil 2025), but recent studies in the Peruvian Amazon, near the border with Brazil, described a new species (Kolanowska & Szlachetko 2020), suggesting that additional species likely occur in the Amazon too.

Based on a recent field expedition, we discovered and describe here two new species of *Acianthera*, presenting photographs, illustrations, taxonomic notes and comments on their morphological relationships and environmental preferences, in addition to assessing their preliminary conservation status and providing a geographic distribution map, as well as an identification key for *Acianthera* species from the Brazilian Amazon.

Material and methods

The Serra do Divisor National Park (SDNP) (18°10′06″ S, 73°30′27″ W) is located in the extreme western portion of the state of Acre, Brazil, on the border with Peru (Fig. 1), and covers approximately 834 000 hectares of Amazonian forest (Obermüller *et al.* 2020). The climate in the SDNP is classified as hot and humid (Af according to Köppen), without well-defined dry seasons, a mean annual temperature of 24.2°C and an average rainfall of 1750–2750 mm per year, with the highest precipitation occurring between November and April (Ministério das Minas e Energia 1977; IBGE 1994).

The area elevation ranges are from 200–300 m, reaching up to about 580 m in the western portion (Ministério das Minas e Energia 1977). Geologically, the region rests on argillites of the Solimões and Ramon formations, as well as older units composed of gneisses, amphibolites, quartz diorites, conglomerates, and sandstones, which form the physiographic complex of the Serra do Divisor (Haag & Henriques 2014). The soils of the Serra do Divisor are sandy, very nutrient-poor, highly acidic, and have a low cation exchange capacity (CEC), developed over strongly leached Cretaceous sandstones (Mendonça *et al.* 2020). The vegetation is characterized by a mosaic of formations, mainly open and dense ombrophilous forests of "terra firme" at different elevations (submontane and hilly interfluves), as well as Dense Alluvial Ombrophilous Forests, known as "várzeas" along the white-water rivers that carry large quantities of nutrient-rich sediments, and "igapós" along the nutrient-poor black-water rivers. Forested "campinarana*"* formations also occur along small islands of sandy soils, particularly

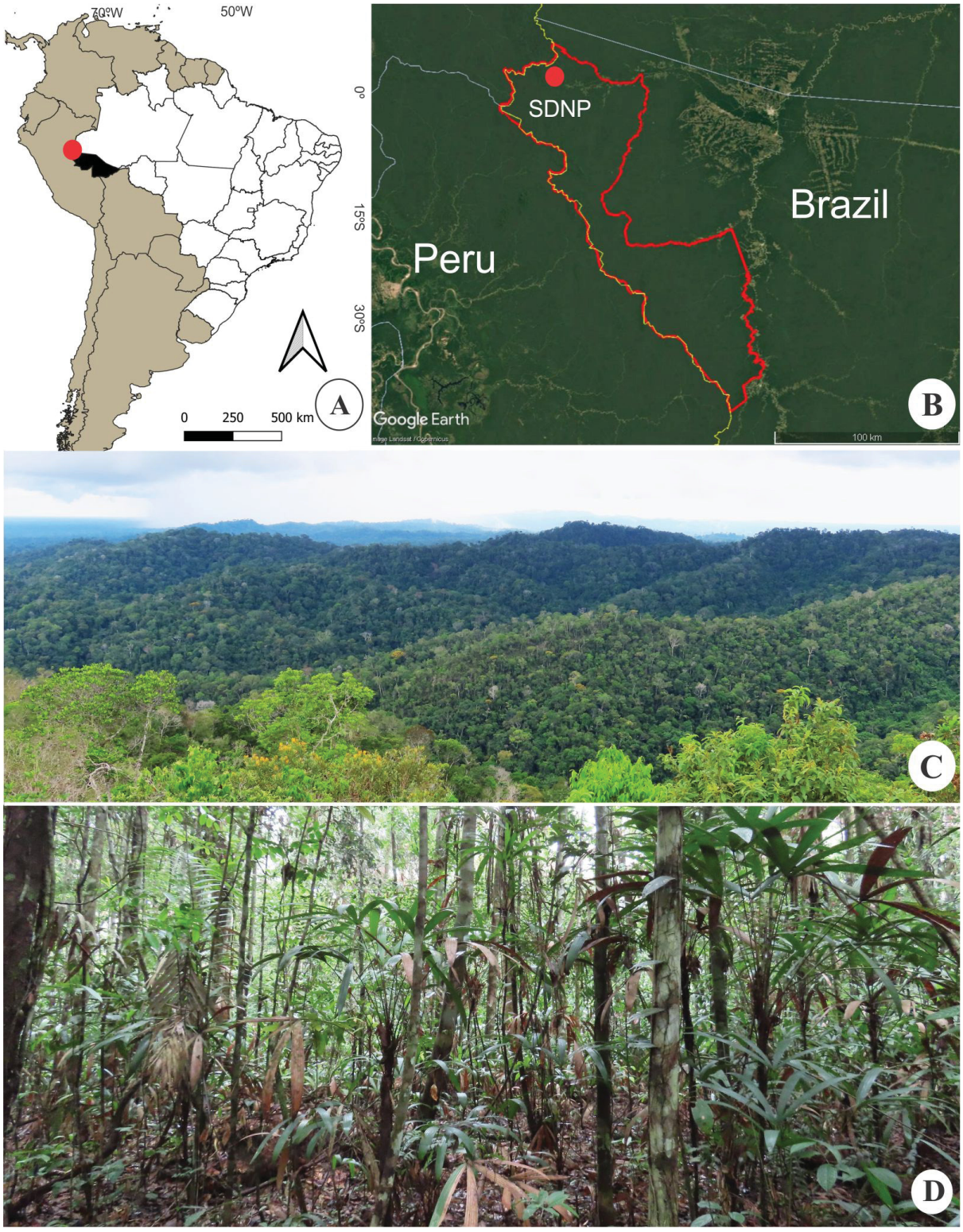

Fig. 1. Geographical location of *Acianthera amazonica* Marcusso sp. nov. and *A. nukiniana* Marcusso sp. nov. , in Serra do Divisor National Park (SDNP), Acre, North Brazil. **A**. Location of Acre, with red point indicating the SDNP. **B**. Location of the collection point in SDNP. **C**. Overview of the SDNP. **D.** Understory of the terra firme forest where *A. amazonica* and *A. nukiniana* were collected. Photos by Gabriel M. Marcusso.

along abandoned paleochannels (Ministério das Minas e Energia 1977). The region is among the most biodiverse areas of the Amazon (Mendonça *et al.* 2020; Koga *et al.* 2022).

In this sense, the region may be considered a biogeographical crossroads between the westernmost limits of lowland species and the easternmost limits of highland species (Obermüller *et al.* 2020; Marcusso *et al.* 2025). The Brazilian portion of the Serra do Divisor (Contamana in Peru) is largely encompassed by the SDNP, a fully protected conservation unit, which currently records 1163 species of vascular plants; however, the genus *Acianthera* had yet to be recorded from this area (Obermüller *et al.* 2020).

A ten day expedition from late November to early December of 2024 was carried out to collect botanical specimens, which resulted in ca 400 samples of vascular plants presently deposited in the INPA, RB, and UFG with duplicates sent to UFACPZ (herbarium acronyms following Thiers, continuously updated).

Institutional abbreviations

INPA = Instituto Nacional de Pesquisas da Amazônia
RB = Jardim Botânico do Rio de Janeiro
UFACPZ = Universidade Federal do Acre/Parque Zoobotânico
UFG = Universidade Federal de Goiás

Identifications were made mainly through consultation of the appropriate literature including Luer (2004, 2009, 2011), Luer & Thoerle (2012, 2013), Damian *et al.* (2018) and Kolanowska *et al.* (2020); the species verification for those listed in the Ecuadorian Amazon by Jørgensen & León-Yánez (1999); the Pleurothallidinae checklist of Colombia presented in Karremans *et al.* (2023); and the protologues of the two related species discussed here (Luer & Toscano de Brito 2002; Campacci & Silva 2016).

The identification key was made based on currently known species from the Brazilian Amazon and on the species list in the Flora e Funga do Brasil (2025). *Acianthera erythrogramma* (Luer & Carnevali) Luer although cited as occurring in Brazil (Cardoso *et al.* 2017, Perez-Escobar *et al.* 2022), is not included in the key because according to the Flora e Funga do Brasil (2025) it does not occur in Brazil and vouchers for the species were not found, the specimens cited for the Amazon were wrongly identified and they are in fact *A. discophylla* Luer & Carnevali. Nomenclatural status follows the Flora e Funga do Brasil (2025); e.g., in Damian *et al.* (2018) *A. ciliata* (Knowles & Westc.) F.Barros & L.Guimarães is considered a synonym of *A. lanceana* (Lodd.) Pridgeon & M.W.Chase and *A. casapensis* (Lindl.) Pridgeon & M.W.Chase of *A. polystachya* (Ruiz & Pav.) Pupulin.

The terminology used in the morphological description follows Beentje (2016). The term stem is adopted, instead of ramicaul, according with Solano Gomez (2015). Terminology of the inflorescence follows Rojas-Alvarado & Karremans (2024). Nomenclature follows the International Code of Nomenclature for Algae, Fungi, and Plants (ICN) (Turland *et al.* 2025). The preliminary assessments for conservation status are based on IUCN (2024) recommendations (Bachman *et al.* 2011).

Results

Taxonomic treatment

Class Liliopsida Batsch
Order Asparagales Link
Family Orchidaceae Juss.
Subfamily Epidendroideae Kosteletzky
Tribe Epidendreae Lindl.
Subtribe Pleurothallidinae Lindl. ex G.Don
Genus *Acianthera* Scheidw.
Subgenus *Acianthera* Scheidw.

Acianthera amazonica Marcusso sp. nov.
urn:lsid:ipni.org:names:77376847-1
Figs 2–3

Diagnosis

Acianthera amazonica sp. nov. resembles *A. saraca-taquerensis* Campacci & J.B.F.Silva by the stem caespitose, erect, lamina linear-elliptic, with trilobed lip, but differs by the 4 or 5 flowers per inflorescence (vs 2 or 3 in *A. saraca-taquerensis*), lateral sepals with equal length of the dorsal (vs lateral sepals longer than the dorsal), apical lobe of the lip with margin fimbriate (vs margin slightly serrate), two callus in the lip (vs callus absent in the lip), and longer lip (3 mm vs 2.2 mm long).

Etymology

The name is in reference to the Amazon, where the species is apparently endemic.

Type material

Holotype

BRAZIL • Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, trilha para a cachoeira da Formosa, cerca de 8 km do início; 07°20′58″ S, 73°41′25″ W; 370 m a.s.l.; 23 Nov. 2024; *Marcusso, G.M., Demarchi, L.O., Biral, L., Zartman, C.E., Magalhães, J. 2801*; holotype: RB [01578438].

Description

Epiphytic herb, erect, ca 12 cm tall, caespitose, rhizome with internodes ca 0.5 mm long, 1.8 mm wide. *Stem* cylindrical, sulcate, 2.7 to 3 cm long, 0.9 mm wide, with a tubular sheath up to the middle, brownish with age. *Leaf* sessile, lamina carnose, 7.7 to 8.5 cm long, 1.2 mm wide, elliptical-lanceolate, base attenuate, apex acute, margin flat. *Inflorescence* multi-flowered, coflorescences with 4 or 5-flowered, peduncle ca 5 mm long, enclosed by a conduplicate, lanceolate bract with 3.5 mm long, green, with apex acute, rachis ca 6 mm long, covered by the floral bracts, which are tubular, green, 1.4 mm long, ca 0.8 mm wide. *Ovary* ca 2 mm long, glabrous, cylindrical, slightly grooved. *Flowers* tubular, ca 4.5 mm long. *Sepals* densely lilac-dotted, glabrous, dorsal sepals oblong, with acuminate apices, 5.8 mm long, 2 mm wide, 3-veined, lateral sepals connate to the upper third, ca 5 mm long, oblong, with apices slightly asymmetric, attenuate, 5.8 mm long, 2 mm wide, and adaxially with a central carina. *Petals* lilac-dotted, oblanceolate, with acute apex, 3.4 mm long, 1 mm wide, 1-veined, margin in the apices slightly irregular. *Lip* lilac densely in spots, oblong, trilobed, slightly recurved, unguiculate, 3 mm long, 1 mm wide, apex obtuse, with the apical lobe densely fringed, two lateral lobes erect, slightly rounded, two parallel longitudinal callus ca 1 mm long, slightly fringed towards the apex, central lip slightly papillose distally. *Column* densely lilac-dotted to whitish, semi-terete, slightly recurved, ventrally channeled, winged,

3.6 mm long, 1 mm wide, apical margin slightly denticulate, foot 1.3 mm long, anther sub globose, glandular-papillose, surrounded by the clinandrium, ca 0.5 mm long, 0.4 mm wide, pollinarium with two ovoid pollinias, ca 0.3 mm long, attached to a caudicle. *Capsule* not seen.

Distribution, habitat and phenology

Acianthera amazonica sp. nov. is currently known only from the State of Acre in the Serra do Divisor National Park (Fig. 1). It occurs as an epiphyte in low densities in Dense Lowland Ombrophilous Forests, locally known as terra firme, at 370 m of elevation. Collected with flowers in November.

Preliminary IUCN conservation assessment

Acianthera amazonica sp. nov. was found in only one locality with few conspecific individuals. Although the number of known populations and individuals is very limited, similar environments are widely distributed throughout the region (Mendonça *et al.* 2020) suggesting that its possible that the global range is larger than the study area. The type locality of the species, the Formosa Waterfall Trail, is located within a protected area – the SDNP, this park is surrounded by other conservation areas including the

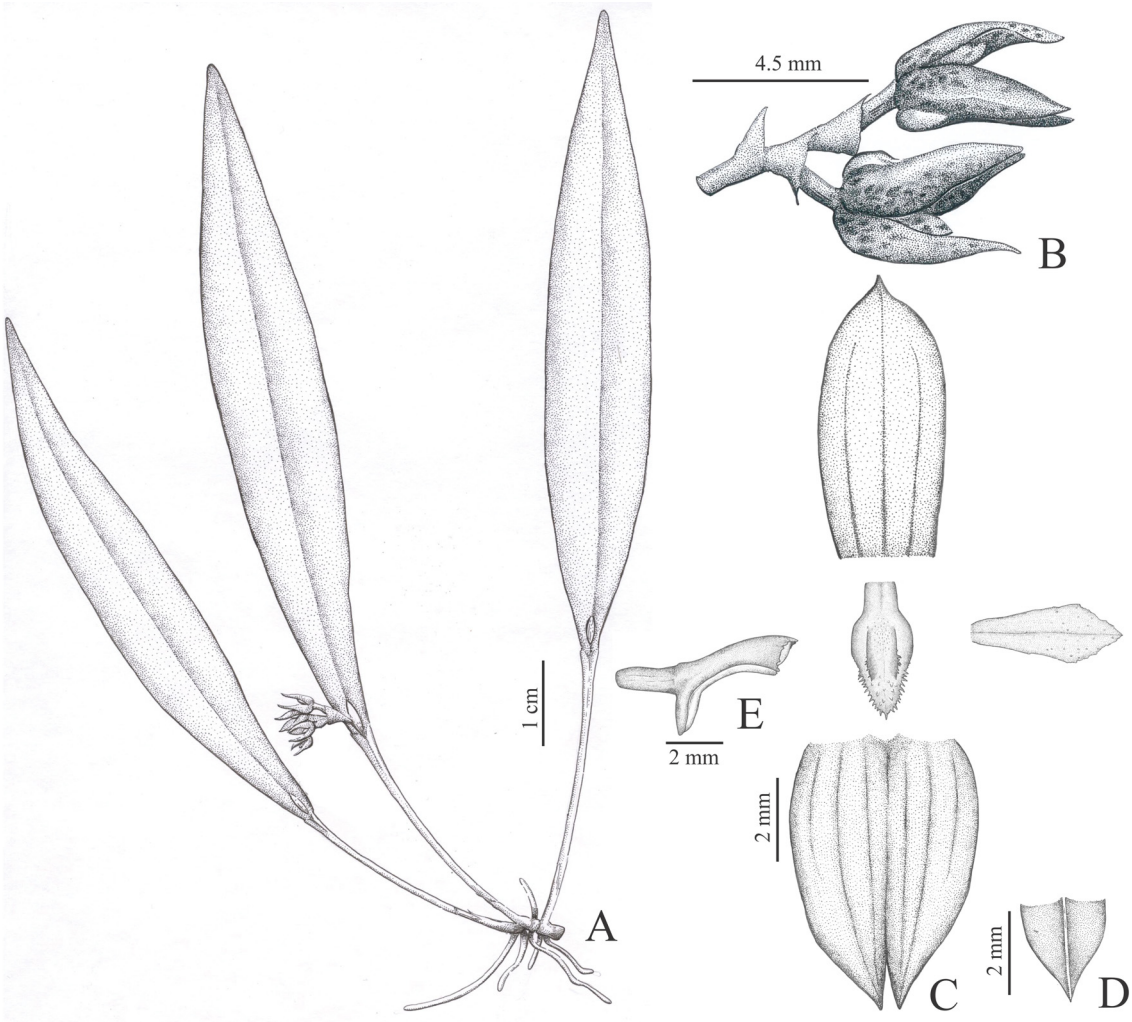

Fig. 2. *Acianthera amazonica* Marcusso sp. nov., holotype (RB [01578438]). **A**. Habit. **B**. Flowers. **C**. Dissected floral pieces exhibiting sepals and petals. **D**. Detail of the adaxial side of the sepal showing the carina. **E**. Column and part of the pedicellate ovary in lateral view. Drawn by Gabriel Reis.

Fig. 3. Flowers of living specimen of *Acianthera amazonica* Marcusso sp. nov. , holotype (RB [01578438]). **A**. Front view of the flowers. **B**. Lateral view of the flowers. Photos by Gabriel M. Marcusso.

Alto Juruá Extractive Reserve and the Nawa and Nukini Indigenous Lands in Brazil, as well as the Sierra del Divisor National Park in Peru. However, the region faces significant threats, such as the expansion of livestock farming and the proposed extension of the BR-364 highway, which would cross the area (Koga *et al.* 2022). Given the lack of information on its distribution and population size, we suggest categorizing *Acianthera amazonica* sp. nov. as Data Deficient (DD) according to the IUCN Red List Categories (IUCN 2024).

Remarks

Acianthera amazonica sp. nov. is morphologically similar to *A. saraca-taquerensis,* which is known only by the type specimen from the Guyana Shield, in Pará State, near the border with Guyana (ca 2000 km from the type locality of *A. amazonica*), differing by several vegetative and floral features, as mentioned in the diagnosis. Furthermore, although the color is variable in orchids, *A. amazonica* has sepals and petals densely lilac-dotted, differing from *A. saraca-taquerensis* which have yellow sepals and lip with purple spots and white-green petals. *Acianthera amazonica* sp. nov. putatively belongs to the *Acianthera* subgenus *Acianthera* due to its stout habit, sulcate stem, fleshy flowers, and thick, papilose lip (Karremans *et al.* 2016). By the lateral sepals fused, and the lip with two longitudinal calluses, *Acianthera amazonica* fits with the *Acianthera* section *Acianthera* of Chiron & van den Berg (2012).

Acianthera nukiniana Marcusso sp. nov.
urn:lsid:ipni.org:names:77376848-1
Figs 4–5

Diagnosis

Acianthera nukiniana sp. nov. resembles *A. silvae* (Luer & Toscano) Luer by the erect stem, lamina linear, 2-flowered inflorescence, lateral sepals connate up to the upper third, and lip with two lateral lobes, but differs by the habit caespitose (vs the repent in *A. silvae*), petal margins pilose, mainly toward the apex (vs microscopically denticulate), densely papillose in the apex (vs smooth), and shorter lip (1.5 mm vs 2.75 mm long) with near equal length of the column (vs exceeding the column length).

Etymology

The name refers to the Nukini people, that historically lived in the high Rio Moa, in the Juruá basin (Oppenheim 1936), where *P. nukiniana* sp. nov. was recorded. Today, they still live in the region, along the border with the SDNP, in the Indigenous Land Nukini (Correia 2024).

Type material

Holotype

BRAZIL • Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, trilha para a cachoeira da Formosa, cerca de 8 km do início; 07°20′58″ S, 73°41′25″ W; 370 m a.s.l.; 23 Nov. 2024; *Marcusso, G.M., Demarchi L.O., Biral, L., Zartman, C.E., Magalhães, J. 2799*; holotype: RB [01578436].

Description

Epiphytic herb, erect, ca 10 cm tall, caespitose, rhizome with internodes ca 1 mm long, 1.4 mm wide. *Stem* cylindrical, sulcate, 3.1 to 3.8 cm long, 1 mm wide, with a tubular sheath up to the middle, brownish, apex acute. *Leaf* sessile, lamina carnose, 5.5 to 6.5 cm long, 5.6 to 6.3 mm wide, linear to oblanceolate, base attenuate, apex acute, margin revolute. *Inflorescence* multi-flowered, coflorescences 2-flowered, peduncle ca 8 mm long, enclosed by a conduplicate, lanceolate bract with 3 mm long, ca 0.3 mm wide, green, with apex attenuate, rachis abbreviated ca 0.5 mm long, floral bract tubular, 1.4 mm long, ca 0.3 mm wide. *Ovary* ca 2 mm long, glabrous, cylindrical, slightly grooved. *Flowers* tubular, ca 5 mm long. *Sepals* pink, glabrous, dorsal sepal oblong, with acute apex, 5 mm long, 2 mm

wide, 3-veined, lateral sepals connate up to the middle, at ca 3 mm long, elliptic, apex acute, 6.2 mm long, 2 mm wide. *Petals* pink-whitish, oblong, with acute apex, 2.6 mm long, 0.8 mm wide, 1-veined, margin ciliate, mainly towards the apex, surface in the apex densely papillose. *Lip* pink-whitish, sessile, oblong, trilobed, recurved, 1.5 mm long, 0.8 mm wide, apex rounded, two lateral lobes erect, recurved, apex papillose. *Column* pink-white, semi-terete, recurved, ventrally channeled, winged, 1.6 mm long, 0.8 mm wide, apical margin slightly denticulate, foot ca 0.8 mm long, anther oblong, glandular-papillose, surrounded by the clinandrium, ca 0.3 mm long, 0.5 mm wide, pollinarium with two ovoid pollinias, ca 0.3 mm long, attached to a caudicle, apical margin slightly irregular. *Capsule* not seen.

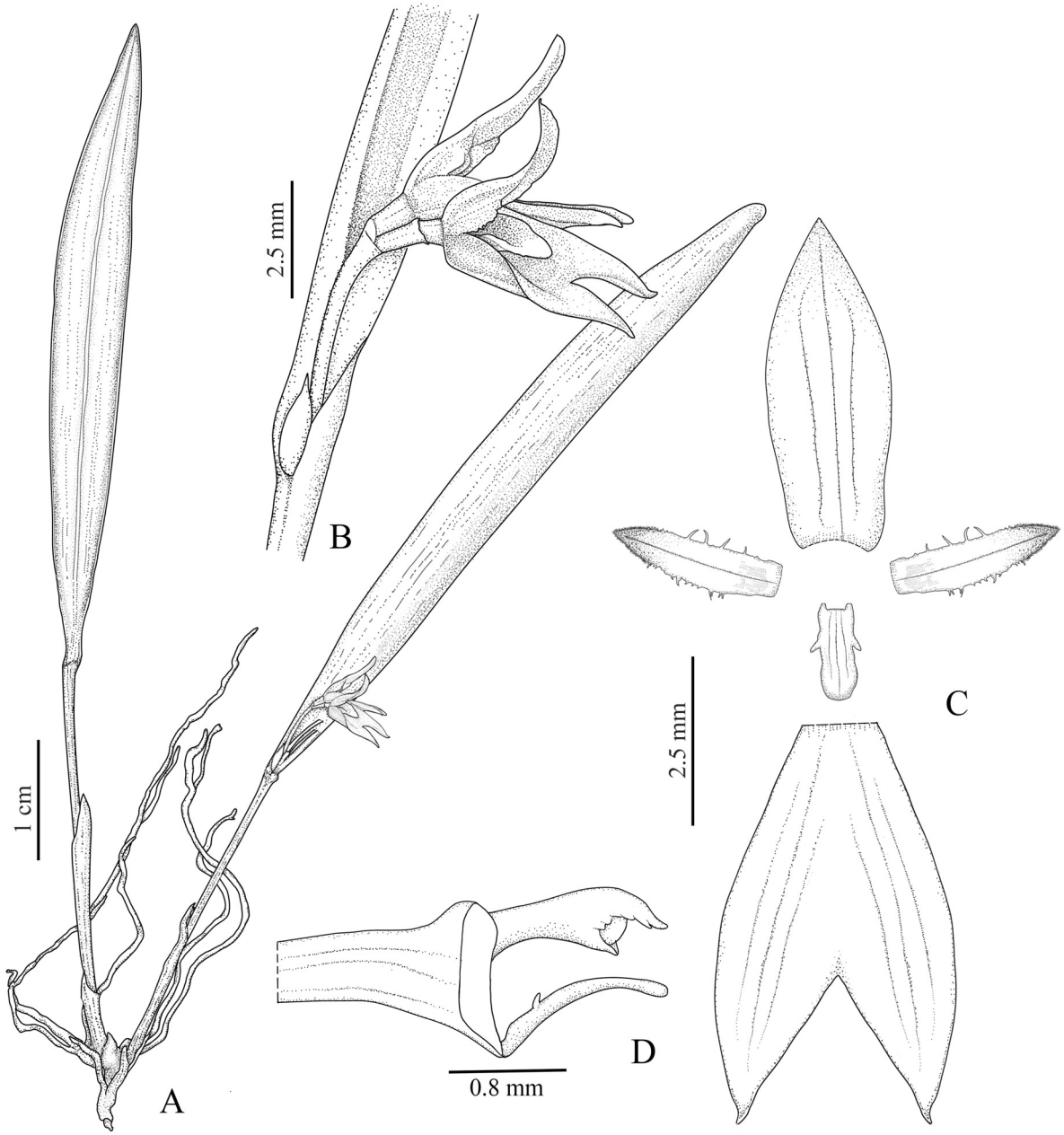

Fig. 4. *Acianthera nukiniana* Marcusso sp. nov. , holotype (RB [01578436]). **A**. Habit. **B**. Flowers. **C**. Dissected floral pieces exhibiting sepals and petals. **D**. Lateral view of the ovary, column, and lip. Drawn by Thamiris Macedo.

Fig. 5. Flowers of living specimen of *Acianthera nukiniana* Marcusso sp. nov. , holotype (RB [01578436]). **A**. Front view of the flowers. **B**. Lateral view of the flowers. Photos by Gabriel M. Marcusso.

Distribution, habitat and phenology

Acianthera nukiniana sp. nov. is known only from the SDNP, in Acre State (Fig. 1). This species occurs as an epiphyte in low densities in lowland dense ombrophilous forests, locally known as terra firme, at an elevation of 370 m. Collected with flowers in November.

Preliminary IUCN conservation assessment

Acianthera nukiniana sp. nov. has been identified in only one location, where few mature individuals were observed, but similar habitats are found extensively throughout the region (Mendonça *et al.* 2020), suggesting that new populations can be found. The trail to Formosa Waterfall, lies within the SDNP, a protected area surrounded by several conservation areas, including the Alto Juruá Extractive Reserve and the Nawa and Nukini Indigenous Lands in Brazil, as well as the Sierra del Divisor National Park in Peru. Nevertheless, the region faces serious threats, including the growth of livestock farming and the proposed extension of the BR-364 highway, which would intersect the area (Koga *et al.* 2022). Due to insufficient data on its distribution and population size, we suggest classifying *Acianthera nukiniana* as Data Deficient (DD) under the IUCN Red List Categories (IUCN 2024).

Remarks

Acianthera nukiniana sp. nov. is morphologically similar to *A. silvae*, which is known only by the type from Japura River, in the State of Amazonas (Luer & Toscano de Brito 2002), with several floral differences (see diagnosis). Also resembles *A. punicea* (Luer) Pridgeon & M.W.Chase, from Ecuador, differing by the sessile lip (vs unguiculate in *A. punicea*), trilobate (vs not trilobate) and shorter (1.5 mm vs 3 mm long); and *A. carinata* (C.Schweinf.) Luer, from Peru, differing by the caespitose habit (vs repent), shorter sepals (5 to 6.2 mm vs ca 10 mm long), lip shorter (1.5 mm vs ca 5 mm long), and apical lobe of the lip rounded (vs acute). *Acianthera nukiniana* sp. nov. putatively belongs to the *Acianthera* subgenus *Acianthera* by the stout habit, sulcate stem, fleshy flowers, lateral sepals fused, concave, margin slightly denticulate, and lip thick (Karremans *et al.* 2016), and to the *Acianthera* section *Acianthera* (sensu Chiron & van den Berg 2012).

Identification key to the *Acianthera* of Brazilian Amazon

1. Inflorescence 1 or 2-flowered 2
– Inflorescence with more than 2 flowers 7

2. Caespitose (internodes of rhizomes <5 mm long)..... ***A. nukiniana*** Marcusso sp. nov.
– Creeping or repent (internodes of rhizome >10 mm long)..... 3

3. Lamina ovate ..... ***A. discophylla*** Luer & Carnevali
– Lamina large-elliptic, elliptic, oblong, lanceolate or linear..... 4

4. Lamina large-elliptic, dorsal sepal spatulate..... ..... ***A. yauaperyensis*** (Barb.Rodr.) Pridgeon & M.W.Chase
– Lamina large-elliptic, elliptic, oblong, lanceolate or linear, dorsal sepal linear or lanceolate 5

5. Dorsal sepal with the same length of the lateral sepals ..... ***A. silvae*** (Luer & Toscano) Luer
– Dorsal sepals twice the length of the lateral sepals ***A. miqueliana*** (H.Focke) Pridgeon & M.W.Chase

7. Inflorescence surpassing the lamina length ***A. ciliata*** (Knowles & Westc.) F.Barros & L.Guimarães
– Inflorescence shorter than the lamina length 8

8. Plants higher than 12 cm tall, stem longer than the lamina..... 9
– Plants up to 12 cm tall, stem shorter than the lamina 10

9. Lateral sepals oblong ..... ***A. casapensis*** (Lindl.) Pridgeon & M.W.Chase
– Lateral sepals elliptic ..... ***A. fockei*** (Lindl.) Pridgeon & M.W.Chase

10. Sepals with equal length, apical lobe of the lip with fringed margin ***A. amazonica*** Marcusso sp. nov.
– Lateral sepals longer than the dorsal, apical lobe of the lip with serrate margin ..... ***A. saraca-taquerensis*** Campacci & J.B.F.Silva

Discussion

Here, we expanded the number of *Acianthera* species in the Brazilian Amazon from eight to ten species. However, this number is likely underestimated, as large areas of the Amazon remain poorly sampled botanically and additional novelties are expected to emerge, as demonstrated by the present and other recent studies. For example, *Acianthera lueri* Kolan. & Szlach. was recently described from Peru near the Brazilian border (Kolanowska & Szlachetko 2020), and future field work may record this species within Brazilian territory. In addition, the same expedition to the SDNP that documented the new species described here, also resulted in six new records for Brazil (Marcusso *et al.* 2025).

In summary, recent fieldwork has enabled the collection and description of two new species. The identification key provided here represents a valuable tool for identifying *Acianthera* species in the Amazon, complementing the one provided by Kolanowska & Szlachetko (2020) for the genus in Peru. Our results support and encourage continued field efforts in the remote areas of the Amazon, aimed at documenting the vast biodiversity that remains unknown in the world's largest tropical forest.

Acknowledgments

We thank Mathias Engels for the help with literature, UFACPZ curator and staff for the support on the processing of the specimens collected in the Serra do Divisor, Gabriel Reis and Thamiris Macedo for the illustrations, and the reviewers for their suggestions. ICMBIO for permission to collect in the Serra do Divisor National Park (SISBIO 95507-1) and for help in logistics. INPA for logistics support. GMM receives a grant from Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro (FAPERJ E–26/205.680/2022). LOD receives a grant from Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - CAPES (PDPG-Amazônia Legal - Proc. n: 88887.839244/2023-00).

References

Bachman S., Moat J., Hill A.W., de la Torre J. & Scott B. 2011. Supporting Red List threat assessments with GeoCAT: geospatial conservation assessment tool. *In*: Smith V. & Penev L. (eds) *e-Infrastructures for Data Publishing in Biodiversity Science*. *ZooKeys* 150: 117–126. https://doi.org/10.3897/zookeys.150.2109

Beentje H. 2016. *The Kew Plant Glossary: An Illustrated Dictionary of Plant Terms*. 2nd ed. Royal Botanic Gardens, Kew, Richmond.

Campacci M.A. & Silva J.B.F. 2016. Acianthera saraca-taquerensis Campacci & J.B.F. Silva sp. nov. Coletânea de Orquídeas Brasileiras 12: 454–457.

Cardoso D., Särkinen T., Alexander S., Amorim A.M., Bittrich V., Celis M., Daly D.C., Fiaschi P., Funk V.A., Giacomin L.L., Goldenberg R., Heiden G., Iganci J., Kelloff C.L., Knapp S., Lima H.C., Machado A.F.P., Santos R.M., Mello-Silva R. & Forzza R.C. 2017. Amazon plant diversity revealed by a taxonomically verified species list. *Proceedings of the National Academy of Sciences of The United States of America* 114: 10695–10700. https://doi.org/10.1073/pnas.1706756114

Chiron G.R. & Bolsanello R.X. 2015. *Orchidées du Brésil - As Orquídeas da Serra do Castelo (Espírito Santo - Brasil)*. 1st. Tropicalia, Voreppe.

Chiron G.R. & van den Berg C. 2012. Révision taxinomique du genre *Acianthera* (Orchidaceae, Pleurothallidinae). *Richardiana* 12: 59–77.

Correia C.S. 2024. *Instituto Socioambiental | Povos Indígenas no Brasil*. Available from https://pib.socioambiental.org/pt/Povo:Nukini [accessed 4 Feb. 2025].

Damián A., Mitidieri N. & Chiron G. 2018. A taxonomic synopsis of *Acianthera* (Orchidaceae: Pleurothallidinae) in Peru, including two new species. *Anales del Jardín Botánico de Madrid* 75: e069. https://doi.org/10.3989/ajbm.2449

Flora e Funga do Brasil. 2025. *Jardim Botânico do Rio de Janeiro*. Available from http://floradobrasil.jbrj.gov.br/ [accessed 26 Nov. 2025].

Haag N.A. & Henriques M.H. 2014. Património Geológico do Parque Nacional da Serra do Divisor (Acre, Brasil): uma avaliação qualitativa. *Comunicações Geológicas* 101, Especial III: 1279–1282.

IBGE. 1994. *Projeto de proteção do meio ambiente e das comunidades indígenas: diagnóstico geoambiental e socioeconômico - Área de influência da BR-364 trecho RioBranco/Cruzeiro do Sul*. Rio de Janeiro, IBGE/IPEA.

IUCN. 2024. *Guidelines for Using the IUCN Red List Categories and Criteria, Version 16. Prepared by the Standards and Petitions Committee*. Available from https://www.iucnredlist.org/documents/RedListGuidelines.pdf [accessed 26 Nov. 2025].

Jørgensen P.M. & León-Yánez S. 1999. Catalogue of the vascular plants of Ecuador. *Monographs in Systematic Botany from Missouri Botanical Garden* 75: 1–1182.

Karremans A.P. & Vieira-Uribe S.V. 2020. *Pleurothallids Neotropical Jewels*. *Volume 1*. Imprensa Mariscal, Quito.

Karremans A.P., Bogarín D., Díaz-Morales M., Fernández M., Oses L. & Pupulin F. 2016. Phylogenetic reassessment of *Acianthera* (Orchidaceae: Pleurothallidinae). *Harvard Papers in Botany* 21: 171–187. https://doi.org/10.3100/hpib.v21iss2.2016.n4

Karremans A.P., Moreno J.S., Gil-Amaya K., Morales N.G., Espinosa F., Mesa S., Restrepo E., Rincón-González M., Serna A., Sierra-Ariza M. & Vieira-Uribe S. 2023. Colombian Orchidaceae: a catalogue of the Pleurothallidinae. *Lankesteriana* 23: 181–400. https://doi.org/10.15517/lank.v23i2.56158

Koga D.M., Brown I.F., Fearnside P.M., Salisbury D.S. & Silva S.S. 2022. Serra do Divisor National Park: A protected area under threat in the southwestern Brazilian Amazon. *Environmental Conservation* 49: 74–82. https://doi.org/10.1017/S0376892922000091

Kolanowska M. & Szlachetko D.L. 2020. *Acianthera lueri*, a new orchid species from the Peruvian Amazon region. *Systematic Botany* 45: 6–10. https://doi.org/10.1600/036364420X15801369352252

Luer C.A. 2004. Icones Pleurothallidinarum XXVI. Systematics of *Pleurothallis* subgenus *Acianthera* (Orchidaceae). *Monographs in Systematic Botany from the Missouri Botanical Garden* 95: 1–114. https://doi.org/10.5962/bhl.title.149317

Luer C.A. 2009. Miscellaneous new species in the Pleurothallidinae (Orchidaceae). *Selbyana* 30: 1–71. https://doi.org/10.5962/bhl.part.4453

Luer C.A. 2011. Miscellaneous new species in the Pleurothallidinae (Orchidaceae) excluding species from Brazil. *Harvard Papers in Botany* 16: 311–360. https://doi.org/10.3100/0.25.016.0206

Luer C.A. & Thoerle L. 2012. Miscellaneous new species in the Pleurothallidinae (Orchidaceae). *Harvard Papers in Botany* 17: 333–368. https://doi.org/10.3100/025.017.0214

Luer C.A. & Thoerle L. 2013. Miscellaneous new species in the Pleurothallidinae (Orchidaceae). *Harvard Papers in Botany* 18: 173–196. https://doi.org/10.3100/025.018.0212

Luer C.A. & Toscano de Brito A.L.V. 2002. Miscellaneous new species of the Pleurothallidinae from Brazil. *Selbyana* 23(2): 181–195.

Marcusso G.M., Azevedo I., Biral L., Demarchi L.O., Forzza R.C., Goldenberg R., Marinho L.C., Michelangeli F.A., Teles A.M. & Zartman C.E. 2025. Botanical novelties from the Serra do Divisor National Park in the extreme western Brazilian Amazon. *Acta Amazonica* 55: e55bc25076. http://doi.org/10.1590/1809-4392202500761

Mendonça B.A.F., Schaefer C.E.G.R., Fernandes-Filho E.I., Simas F.N.B. & Amaral E.F. 2020. Genesis and micropedology of soils at Serra do Divisor and Moa River floodplain, northwestern Acre, Brazilian Amazonia. *Revista Brasileira de Ciência do Solo* 44: e0200038. https://doi.org/10.36783/18069657rbcs20200038

Ministério das Minas e Energia. 1977. *Projeto RADAMBRASIL: Levantamento de Recursos Naturais. Vol. 15. Folha SB.19 Juruá. Geologia, geomorfologia, pedologia, vegetação e uso potencial de terra*. Departamento Nacional da Produção Mineral, Rio de Janeiro.

Obermüller F.A., Medeiros H., Colli-Silva M., Silveira M., Almeida T., Delprete P.G., Moraes P.R.L., Alves-Araújo A.G., Azevedo I.H.F., Fiaschi P., Cardoso D., Filardi F.R., Lima H.C., Carrijo T.T., Lohmann L.G., Mello-Silva R., Goldenberg R., Daly D. & Forzza R.C. 2020 Lista de espécies de plantas vasculares do Parque Nacional da Serra do Divisor. *In*: *Catálogo de Plantas das Unidades de Conservação do Brasil.* Jardim Botânico do Rio de Janeiro. Available from https://catalogo-ucs-brasil.jbrj.gov.br [accessed 29 Jan. 2026].

Oppenheim V. 1936. Notas ethnographicas sobre os indígenas do alto Juruá (Acre) e Valle do Ucayaly (Perú). *Anais da Academia Brasileira de Ciências* 8: 145–155.

Pérez-Escobar O.A., Oses L.M., Solano R., Rodríguez L.K., Zuluaga A. & Bogarín D. 2022. *Acianthera hagsateri* (Pleurothallidinae), a new species from the sub-andean forest of Colombia. *Lankesteriana* 22: 17–24. https://doi.org/10.15517/lank.v22i1.50813

Pérez-Escobar O.A., Bogarín D., Przelomska N.A.S., Ackerman J.D., Balbuena J.A., Bellot S., Bühlmann R.P., Cabrera B., Cano J.A., Charitonidou M., Chomicki G., Clements M.A., Cribb P., Fernández M., Flanagan N.S., Gravendeel B., Hágsater E., Halley J.M., Hu A.-Q., ... & Antonelli A. 2024. The origin and speciation of orchids. *New Phytologist* 242: 700–716. https://doi.org/10.1111/nph.19580

Pridgeon A.M., Cribb P.J., Chase M.W. & Rasmussen F.N. 2005. *Genera Orchidacearum, 4. Epidendroideae (Part One)*. Oxford University Press, Oxford. https://doi.org/10.1093/oso/9780198507123.001.0001

Rodrigues V.T., Smidt E.C. & Barros F. 2015. Revisão taxonômica de *Acianthera* sect. *Pleurobotryae* (Orchidaceae, Pleurothallidinae). *Hoehnea* 42 (4): 615–627. https://doi.org/10.1590/2236-8906-60/2015

Rojas-Alvarado G. & Karremans A. 2024. A typological and morphological analysis of the Pleurothallidinae (Orchidaceae) inflorescences. *The Botanical Review* 90: 221–250. https://doi.org/10.1007/s12229-024-09303-6

Solano Gomez R. 2015. A taxonomic synopsis of the Mexican species of *Acianthera* (Orchidaceae: Pleurothallidinae) including a new species. *Phytotaxa* 218 (1): 039–060. https://doi.org/10.11646/phytotaxa.218.1.3

Solano R. & Karremans A.P. 2023. A review of *Acianthera* subgenus *Brenesia* (Orchidaceae, Pleurothallidinae), with a new species from Mexico. *Acta Botanica Mexicana* 130: e2225. https://doi.org/10.21829/abm130.2023.2225

Thiers B. continuously updated. Index Herbariorum: A global directory of public herbaria and associated staff. New York Botanical Gardens Virtual Herbarium. http://sweetgum.nybg.org/science/ih/

Turland N.J., Wiersema J.H., Barrie F.R., Gandhi K.N., Gravendyck J., Greuter W., Hawksworth D.L., Herendeen P.S., Klopper R.R., Knapp S., Kusber W.-H., Li D.-Z., May T.W., Monro A.M., Prado J., Price M.J., Smith G.F. & Zamora Señoret J.C. 2025. *International Code of Nomenclature for Algae, Fungi, and Plants (Madrid Code)*. Regnum Vegetabile 162. University of Chicago Press, Chicago. https://doi.org/10.7208/chicago/9780226839479.001.0001

Printed versions of all papers are deposited in the libraries of two of the institutes that are members of the *EJT* consortium: Muséum national d'Histoire naturelle, Paris, France and Royal Museum for Central Africa, Tervuren, Belgium. The other members of the consortium are: Royal Belgian Institute of Natural Sciences, Brussels, Belgium; Meise Botanic Garden, Meise, Belgium; Natural History Museum of Denmark, Copenhagen, Denmark; Naturalis Biodiversity Center, Leiden, the Netherlands; Museo Nacional de Ciencias Naturales-CSIC, Madrid, Spain; Leibniz Institute for the Analysis of Biodiversity Change, Bonn – Hamburg, Germany; National Museum of the Czech Republic, Prague, Czech Republic; The Steinhardt Museum of Natural History, Tel Aviv, Israël.