ACTA AMAZONICA | http://dx.doi.org/10.1590/1809-4392202500761

BIODIVERSITY AND CONSERVATION | SHORT COMMUNICATION

Botanical novelties from the Serra do Divisor National Park in the extreme western Brazilian Amazon

Gabriel Mendes MARCUSSO[1], Igor AZEVEDO[2], Leonardo BIRAL[3], Layon Oreste DEMARCHI[4], Rafaela Campostrini FORZZA[1,5], Renato GOLDENBERG[6], Lucas Cardoso MARINHO[7], Fabián A. MICHELANGELI[8], Aristônio Magalhães TELES[3], Charles E. ZARTMAN[4]

[1] Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, RJ, Brazil
[2] Universidade Federal de Mato Grosso, Cuiabá - MT, Brazil
[3] Universidade Federal de Goiás, Goiânia - GO, Brazil
[4] Instituto Nacional de Pesquisas da Amazônia, Coordenação de Biodiversidade, Manaus - AM, Brazil
[5] Instituto Chico Mendes de Conservação da Biodiversidade, Prado - BA, Brazil
[6] Universidade Federal do Paraná, Curitiba - PR, Brazil
[7] Universidade Federal do Maranhão, São Luís - MA, Brazil
[8] New York Botanical Garden, Bronx, NY, USA
*Corresponding author: chaszartman@gmail.com

ABSTRACT

The Amazon is one of the most biodiverse regions on the planet; however, from a botanical perspective, it remains underexplored and understudied. Here, we report distributional novelties from a botanical expedition to the Serra do Divisor which include six new records for the Brazilian flora (*Didymoglossum membranaceum, Miconia urticilamina, Pleroma ochypetalum, Piper lagenaebaccum*, *Piper svenningii* and *Sanchezia tigrina*), and six new records for the State of Acre (*Callea montana, Guzmania brasiliensis, Paphinia cristata, Peperomia emarginella, Tovomita maxima,* and *Uleiorchis ulei*), providing images and commentaries for each species. Most of the species are broadly distributed across western Amazonia, but with no previous records in Brazil so far. These new records highlight the relevance and necessity for botanical expeditions to remote areas in the Brazilian Amazon.

KEYWORDS: Acre, Biodiversity, Distributions, Habitat heterogeneity, Mountains

Novidades botânicas do Parque Nacional da Serra do Divisor no extremo oeste da Amazônia brasileira

RESUMO

A Amazônia é uma das regiões mais biodiversas do planeta, mas ainda é botanicamente pouco explorada e estudada. Aqui, apresentamos novidades florísticas oriundas de uma expedição botânica à Serra do Divisor, que incluem seis novos registros para a flora brasileira (*Didymoglossum membranaceum, Miconia urticilamina, Pleroma ochypetalum, Piper lagenaebaccum*, *Piper svenningii* e *Sanchezia tigrina*) e seis novos para o estado do Acre (*Callea montana*, *Guzmania brasiliensis, Paphinia cristata, Peperomia emarginella, Tovomita maxima,* e *Uleiorchis ulei*), para os quais também apresentamos fotografias e comentários de cada espécie. A maioria das espécies é amplamente distribuída na Amazônia ocidental, mas, até o momento, nenhum registro havia sido feito para estas plantas no Brasil. Isso destaca a relevância e a necessidade de expedições botânicas em áreas remotas na Amazônia brasileira.

PALAVRAS-CHAVE: Acre, Biodiversidade, Distribuição, Heterogeneidade Ambiental, Montanhas

The Amazon is arguably the most biodiverse terrestrial area on Earth, mainly due to its vast dimensions, heterogeneous climates and landscape, interplaying with geological changes and evolutionary processes (Guaysamin *et al.* 2024). However, the number of known species of plants remains underestimated thus attributing to the continued challenges of accessing, collecting and studying its flora (Hopkins 2019). For instance, the Brazilian Amazon has fewer recorded vascular plant species than the Atlantic Forest (Flora e Funga do Brasil 2025), despite the latter being four times smaller than the former (IBGE 2004). The undocumented Amazonian plant diversity is also well illustrated by gaps and errors as documented in the most comprehensive checklist published to date (Cardoso *et al.* 2017). In fact, the known richness of the Amazon's plant diversity remains an estimate (e.g, Ter Steege *et al.* 2020). Therefore, botanical expeditions and taxonomic studies continue to be

CITE AS: Marcusso, G.M.; Azevedo, I.; Biral, L.; Demarchi, L.O.; Forzza, R.C.; Goldenberg, R.; *et al*. 2025. Botanical novelties from the Serra do Divisor National Park in the extreme western Brazilian Amazon. *Acta Amazonica* 55: e55bc25076.

fundamental for revealing and documenting the biodiversity in the largest remaining tropical rainforest in the world.

Western Amazon is recognized as disproportionately rich in biodiversity than its other regions, due to its elevated soil fertility and reduced climatic seasonality when compared to other areas (Tuomisto *et al.* 2019; Figueiredo *et al.* 2022; Luize *et al.* 2024). In Brazil, the westernmost portion of the Amazon is in the State of Acre, which, by its proximity to the Andes, shares many crossover elements with its montane flora (Obermüller *et al.* 2020). The flora of Acre has been a target for studies and collection efforts for more than three decades, which initially resulted in a significant increase in new discoveries and collection numbers as registered in the First Catalogue of the Flora of Acre (Daly and Silveira 2009). Continued collections and identifications are steadily accruing botanical novelties for Acre (e.g. Medeiros *et al.* 2014; Honório and Silveira 2024). To date, 1,163 species of vascular plants are known from the Serra do Divisor National Park (SDNP), with several records for the Brazilian territory known only from there (Obermüller *et al.* 2020).

In an effort to contribute to the botanical knowledge of the Brazilian Amazon, we carried out a field expedition to SDNP, and herein we present six new country, and six new state records, according to the Flora e Funga do Brasil (2025). The SDNP (located at central coordinate 8º10'06"S, 73º30'27"W) is situated in extreme western portion of the State of Acre, Brazilian Amazon, near the Peruvian border (Figure 1), and it covers an area of approximately 843,000 hectares in size, ranging from 200 to 650 m elevation, where dense ombrophilous, dense alluvial ombrophilous and open ombrophilous forests occur (IBGE 2012). The 10-day expedition, in November/December 2024, was carried out to collect botanical specimens, resulting in about 400 samples of vascular plants, which were deposited in INPA, RB, UFG herbaria and duplicates sent to UFACPZ (acronyms following Thiers 2025). The distributions maps were made based on the collections with coordinates available in *REFLORA* (https://reflora.jbrj.gov.br), *SpeciesLink* (http://specieslink.net) and *GBIF* (https://www.gbif. org) databases.

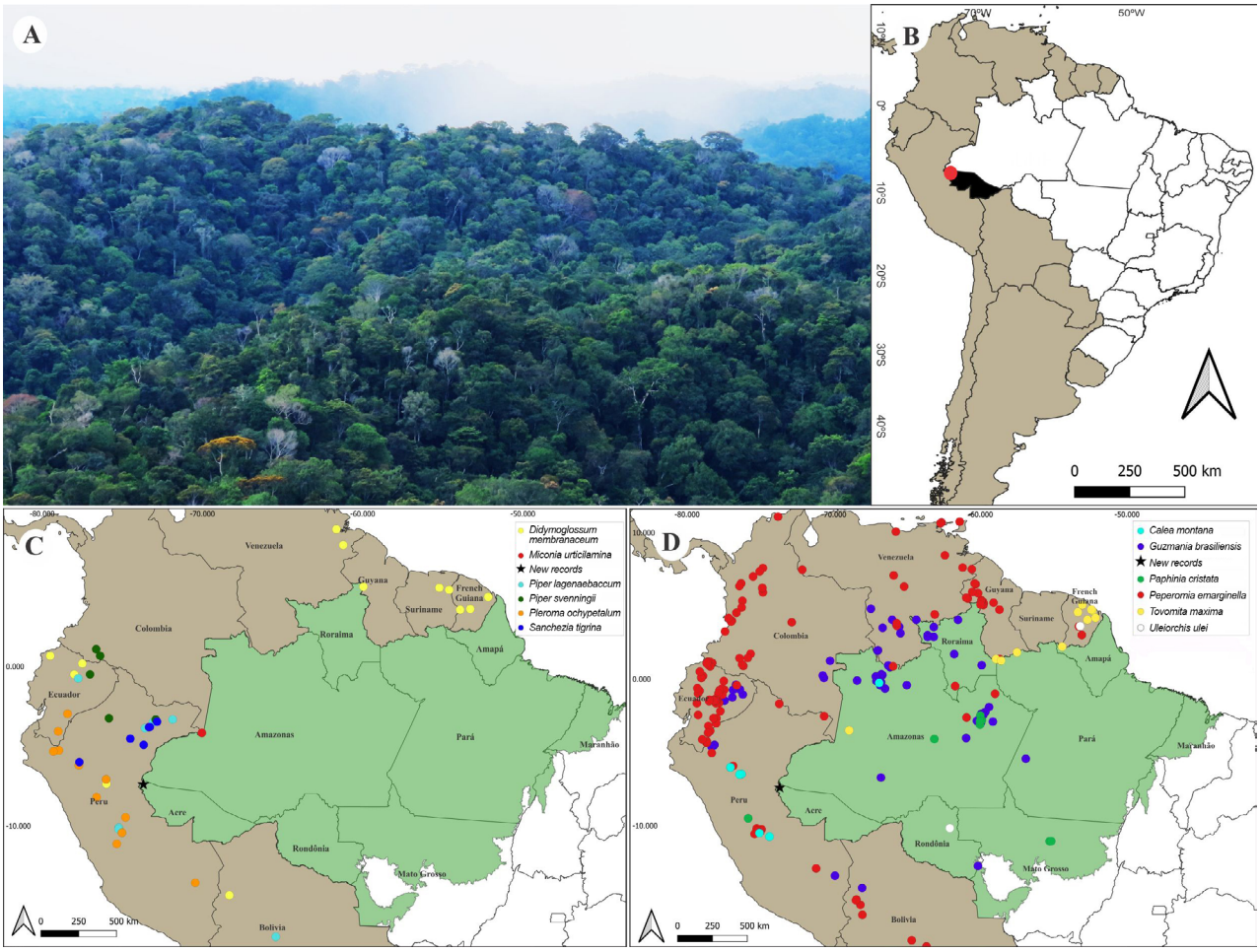

Figure 1. Location of the Serra do Divisor National Park (SDNP), Mâncio Lima municipality, westernmost State of Acre, North Brazil, and distributions of the species with new records presented here. **A)** Landscape of the Serra do Divisor. **B)** Location of SDNP (red), in Acre (black). **C)** Distributions of the species with new records in Brazil. **D)** Distributions of the species with new records from Acre.

New country records

Acanthaceae

Sanchezia tigrina Leonard

Figure 1c and 2a-b

Voucher – Brasil: Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, 07°21'14" S, 73°41'00" W, 335 m, 22 Nov 2024, *L. Biral et al. 5010* (UFG).

Comments – Small treelet about 2,5 m tall, growing in SDNP on sandy soil on the banks of second order streams, in dense alluvial ombrophilous forest. *Sanchezia tigrina* is cultivated as ornamental in various parts of Brazil, but it had not previously been recorded in a natural habitat in the country (Azevedo 2025). The species is characterized by ciliate bracts and sepals. Wild occurrences have been exclusively reported in the Peruvian Amazon, in Loreto and San Martín departments (I. Azevedo pers. obs.). A single specimen of *Sanchezia tigrina* was found in SDNP.

Hymenophyllaceae

Didymoglossum membranaceum (L.) Vareschi

Figure 1c and 2c

Voucher – Brasil: Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, 7°26'59" S, 73°41'23" W, 250 m, 28 Nov 2024, C.E. *Zartman et al. 11303* (INPA).

Comments – Small, creeping, rupicolous herb with scales on the leaf margins, and conical involucres (Kessler and Smith 2017). In SDNP it is restricted to rocky, continually humid walls, typically with draining water, in dense alluvial ombrophilous forest. A single, large population was found in SDNP on the margin of the Moa River. It is a widely distributed species in the Neotropics, ranging from eastern and north South America, and Central America up to southern Mexico, and the Antilles, but to date not recorded in Brazil (Kessler and Smith 2017).

Melastomataceae

Miconia urticilamina Michelang.

Figure 1c and 2d

Voucher – Brasil: Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, 7º26'49" S, 73º40'08" W, 303 m, 24 Nov 2024, *L.O. Demarchi et al. 2659* (INPA, RB, UFACPZ).

Comments – Shrub to 2 m in height, with large, 7-nerved leaves and dense, cauliflorous inflorescences. In SDNP it was collected in a single site, next to a small stream, in a dense alluvial ombrophilous forest. This species was known only from the Peruvian Amazon (Brako and Zarucchi 1993).

Pleroma ochypetalum (Ruiz & Pav.) D.Don

Figure 1c and 2e

Voucher – Brasil: Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, 7º20'58" S, 73º41'25" W, 370 m, 23 Nov 2024, *G.M. Marcusso et al. 2786* (RB).

Comments – A treelet ca. 4 m tall, flowers with large purple petals and fruits without the caducous sepals. Known from riverine forests in open areas over rocks, in dense alluvial ombrophilous forest. This species is widely distributed from Western Bolivia to Northern Ecuador where it has been found at a wide elevational range from the lower slope of the Andes at 200 m up to 2900 m (Wurdack 1980; Brako and Zarucchi 1993; F.A. Michelangeli pers. obs.).

Piperaceae

Piper lagenaebaccum Trelease

Figure 1c and 2f

Voucher – Brasil: Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, 7º20'58" S, 73º41'25" W, 370 m, 23 Nov 2024, *G.M. Marcusso et al. 2809* (HUEFS, INPA, MG, RB, UB, UFACPZ, UFG).

Comments – A villose shrub about 1.2 m tall, with pendulous inflorescences and a long style. *Piper lagenaebaccum* is known to date only from Peru (POWO 2025). In SDNP it was collected in the forest understory near a stream, in rocky soils within a dense alluvial ombrophilous forest.

Piper svenningii W.Trujillo-C.

Figure 1c and 2g

Voucher – Brasil: Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, 7º29'12" S, 73º43'57" W, 260 m, 25 Nov 2024, *G.M. Marcusso et al. 2858* (RB, UFACPZ).

Comments – Shrub up to 1 m tall with fleshly and bright lamina, and pendulous inflorescences. It was described in 2023, with records in the western Amazon, in Colombia, Ecuador and Peru (Trujillo and Balslev 2023). It was recorded in the SDNP in the understory of a dense ombrophilous forest. It is the easternmost record for the species.

New Acre state records

Asteraceae

Calea montana Klatt

Figure 1d and 3a

Voucher – Brasil: Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, 07°21'14" S, 73°41'00" W, 335 m, 22 Nov 2024, *L. Biral et al. 5012* (UFG).

Comments – A shrub with opposite ovate-lanceolate leaves, with serrate-crenate margins, and solitary radiate capitula with orange ray florets. A single specimen was found growing on a rocky stream bank near Formosa waterfall in SDNP, in a dense alluvial ombrophilous forest. The species is distributed mainly in Peru and Colombia (Pruski 2023). We report the second record of *C. montana* in Brazil and its first occurrence in Acre state, expanding the known distribution of the species. The first Brazilian collection was made by Adolpho Ducke (*s.n.*) in the Curicuriari River, Amazonas state, in 1936. The specimen [RB36656] was later identified by John Pruski

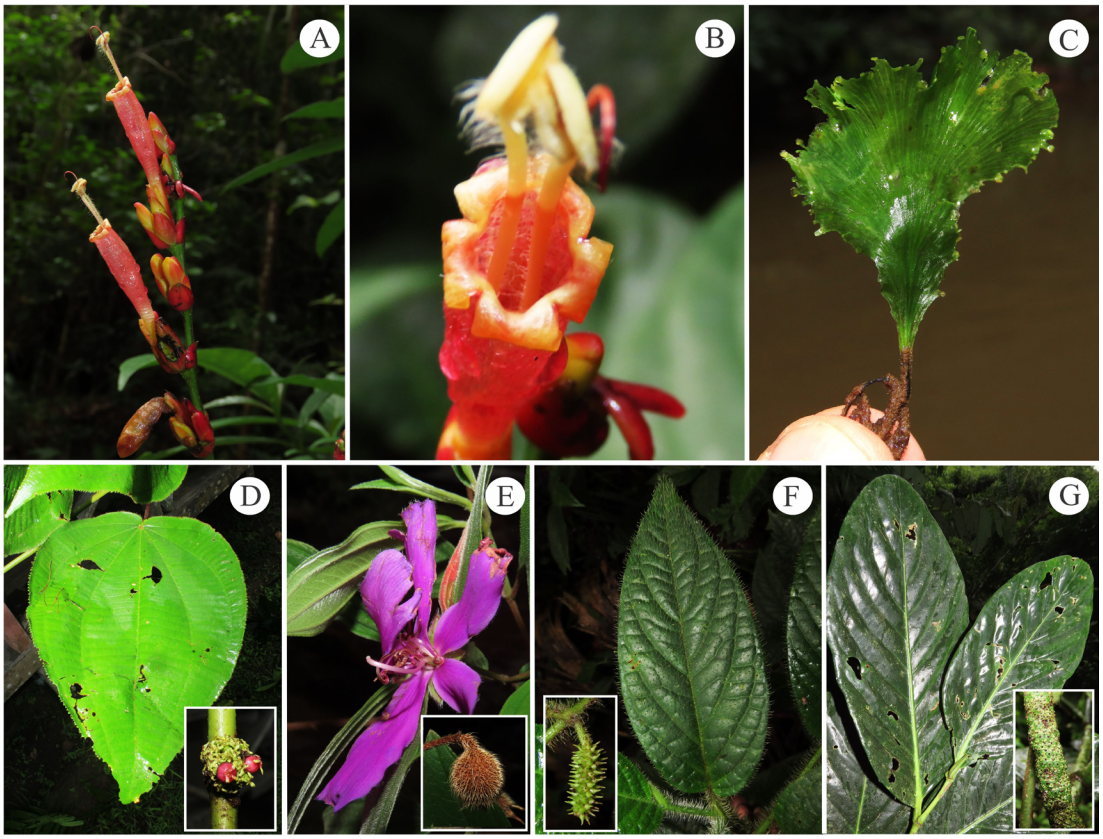

Figure 2. New records from Brazil, in the Serra do Divisor National Park, western State of Acre, North Brazil. **A-B)** Acanthaceae - *Sanchezia trigrina*. **C)** Hymenophyllaceae - *Dydimoglossum membranaceum*. **D)** Melastomataceae - *Miconia urticilamina*. **E)** Melastomataceae - *Pleroma ochypetalum*. **F)** Piperaceae - *Piper lagenaebaccum*. **G)** Piperaceae - *Piper svenningii*.

(Missouri Botanical Garden) in 1987, as documented in the Virtual Herbarium of Brazil, where an image is available.

Bromeliaceae

Guzmania brasiliensis Ule

Figure 1d and 3b-c

Voucher – Brasil: Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, 7°29'12" S, 73°43'57" W, 260 m, 25 Nov 2024, *G.M. Marcusso et al. 2844* (RB).

Comments – An understory epiphyte with erect, congested flowers in a cylindrical inflorescence. A single specimen was found in dense ombrophilous forest in SDNP. It is endemic to the Amazon, widespread in the central to western portions, reaching Ecuador, and southern Venezuela. In Brazil, it has been recorded for Amazonas, Rondônia, and Roraima (Uribe and Costa 2025).

Clusiaceae

Tovomita maxima Molino & J. Engel

Figure 1d and 3d-e

Voucher – Brasil: Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, 7°26'50" S, 73°40'16" W, 370 m, 19 Nov 2024, *L.O. Demarchi et al. 2581* (INPA, UFACPZ).

Comments – In the SDNP, *Tovomita maxima* reaches ca. 10 m in height and produces a yellow exudate. The species can be recognized by its white flowers becoming brownish when senescent (Fig. 3c-d) in addition to capsule-type fruits with a green epicarp and reddish-pink mesocarp. The seeds are enclosed in a reddish aril. *Tovomita maxima* was recently described from northern and southern French Guiana, south Guyana, and a single collection has been made in Brazil so far, in the state of Amazonas in the upper Solimões River (Engel *et al.* 2022). In SDNP it was collected on the border of a small stream, in a dense alluvial ombrophilous forest.

Piperaceae

Peperomia emarginella (Sw.) C.DC.

Figure 1d and 3f

Voucher – Brasil: Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, 7°29'12" S, 73°43'57" W, 260 m, 25 Nov 2024, *G.M. Marcusso et al. 2850* (RB).

Comments – This small, creeping, epiphytic or epiphyllous species, is one of the smallest plants in the genus. It has alternate leaves, with orbicular lamina and an emarginate apex. It is widely distributed in South America. In the Brazilian Amazon, it was previously known only from Amazonas and

Figure 3. New records from the State of Acre, in the Serra do Divisor National Park, Northern Brazil. **A)** Asteraceae - *Calea montana*. **B-C)** Bromeliaceae - *Guzmania brasiliensis*. **D-E)** Clusiaceae - staminate and pistillate flowers of *Tovomia maxima*, respectively. **F)** Piperaceae - *Peperomia emarginella*. **G)** Orchidaceae - *Paphinia cristata*. **H)** Orchidaceae - *Uleiorchis ulei*.

Roraima (Carvalho-Silva *et al.* 2025). In SDNP recorded in the understory of a dense ombrophilous forest.

Orchidaceae

Paphinia cristata (Lindl.) Lindl.

Figure 1d and 3g

Voucher – Brasil: Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, 7°20'58" S, 73°41'25" W, 370 m, 22 Nov 2024, *L.O. Demarchi et al. 2625* (INPA).

Comments – An epiphytic herb from understory, with non-resupinate flowers, and an inflorescence up to 3-flowered, and the flowers with a bilobed central callus, with fimbriate margins (Engels *et al.* 2018). It SDNP it was collected near a stream, with high atmospheric humidity and low luminosity, in a dense alluvial ombrophilous forest. This is the first record for the genus in the State of Acre. It is a widely distributed species in South America, with previous records in Brazil from Amazonas, Mato Grosso and Pará States (Engels *et al.* 2018).

Uleiorchis ulei (Cogn.) Handro

Figure 1d and 3h

Voucher – Brasil: Acre, Mâncio Lima, Parque Nacional da Serra do Divisor, 7°26'50" S, 73°40'16" W, 370 m, 19 Nov 2024, *G.M. Marcusso et al. 2715* (RB).

Comments – This mycoheterotrophic orchid is tuberose, leafless, and erect, with flowers with a salmon-colored perianth, with connate petals and the sepals with a strong carrion odor. It is widely distributed, from Central to South America (Cardoso *et al.* 2015) but as of yet not recorded from Acre. In SDNP it was recorded in dense ombrophilous forest.

The Amazon flora is remarkably species-rich but very understudied, with its floristic richness underestimated (Hopkins 2019). Mountainous sites are even less well known, with very few publications dealing with such habitats, and these usually focusing on the Guyana Shield or Tepuis (e.g. Coelho *et al.* 2015; Barbosa-Silva *et al.* 2020). Although there is a recently published checklist (Obermuller *et al.* 2020), the SDNP remains understudied, with high probabilities of new discoveries after each collecting effort, as we demonstrate herein. Furthermore, new species as well are being described for the area, based on our collections. Our results support that local floristic studies combined with fieldwork, collections and taxonomic evaluations are fundamental and urgent to improve our understanding of Amazonian plant diversity

(Zappi *et al.* 2006; Medeiros *et al.* 2014; Barbosa-Silva *et al.* 2016). Many of the species registered herein are generally broadly distributed in the western Amazon, in the neighboring countries, suggesting a geopolitical artifact attributable to some of these findings rather than cases of strict endemism and or global rarity. On the other hand, our discoveries also included poorly known and rare species, such as *Sanchezia tigrina*, for which our record is one of the few in nature, and *Miconia urticilamina*, which is a rare species (F.A. Michelangeli pers obs.). Furthermore, our record of *Tovomita maxima* and *Calea montana* dramatically expanded the global range of this recently described species.

ACKNOWLEDGMENTS

GMM and RCF thank *Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro* for the fellowships (FAPERJ E–26/205.680/2022; E–26/200.967/2022). LOD e CEZ *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* - CAPES (PDPG-Amazônia Legal - Proc. n: 88887.839244/2023-00) for the fellowships and field support. RCF and RG thank *Conselho Nacional de Desenvolvimento Científico e Tecnológico* (CNPq) for the fellowships (303059/2020-6, 10912/2021-0). *Instituto Chico Mendes de Conservação da Biodiversidade* (ICMBIO) for permission to collect in the Serra do Divisor National Park (SISBIO 95507-1) and for support in the logistics. *Instituto Nacional de Pesquisas da Amazônia* (INPA) for the logistics support. Julio Magalhães for the help in the collections and guidance in the Serra do Divisor.

REFERENCES

Azevedo, I.H.F. 2025. *Sanchezia in* Flora e Funga do Brasil. Jardim Botânico do Rio de Janeiro. Available in: <https://floradobrasil.jbrj.gov.br/FB21717>. Accessed: 24 March 2025.

Barbosa-Silva, R.G.; Labiak, P.L.; Gil, A.S.B.; Goldenberg, R.; Michelangeli, F.A.; Martinelli, G.; Coelho, M.A.N.; Zappi, D.C.; Forzza, R.C. 2016. Over the hills and far away: New plant records for the Guayana Shield in Brazil. *Brittonia* 68: 397Y408.

Barbosa-Silva, R.G.; Bueno M.L.; Labiak, P.H.; Coelho, M.A.N.; Martinelli, G.; Forzza R.C. 2020. The Pantepui in the Brazilian Amazon: vascular flora of Serra do Aracá, a cradle of diversity, richness and endemism. *The Botanical Review* 86: 359–375.

Brako, L.; Zarucchi, J.L. 1993. Catalogue of the flowering plants and gymnosperms of Peru. *Monographs in Systematic Botany from the Missouri Botanical Garden* 45: 1–1286.

Cardoso, A.L.R.; Ilkiu-Borges, A.L.; Rodrigues, T.M. 2015. A new species of *Uleiorchis* (Gastrodieae, Orchidaceae) from the Brazilian Amazon. *Phytotaxa* 205: 117–122.

Cardoso, D.; Särkinen, T.; Alexander, S.T.; *et al.* 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.

Carvalho-Silva, M.; Monteiro, D.; Marcusso, G.M. 2025. *Peperomia in* Flora e Funga do Brasil. Jardim Botânico do Rio de Janeiro. Available at: <https://floradobrasil.jbrj.gov.br/FB12609>. Accessed: 02 Jun. 2025

Coelho, M.A.N.; Costa, D.P.; Martinelli, G.; Moraes, M.A.; Forzza, R.C.; Azoury, R. 2015. Expedições às montanhas da Amazônia. Andrea Jakobsson Estúdio, Rio de Janeiro. 244p.

Daly, D.C.; Silveira, M. 2009. Primeiro Catálogo da Flora do Acre, Brasil. 1. ed. Rio Branco: Ediufac. 555p.

Engel, J.; Molino, J.-F.; Marinho, L.C. 2022. The maximum and the minimum: two new species of *Tovomita* Aubl. (Clusiaceae) from the Guiana Shield with an unusual number of stamens. *Adansonia* 44: 165–174.

Engels, M.E.; Rocha, L.C.F.; Pessoa, E.M. 2018. Novo registro de *Paphinia* (Orchidaceae: Stanhopeinae) para a Região Centro-Oeste brasileira, estado de Mato Grosso. *Rodriguésia* 69: 2253-2257.

Figueiredo, F.O.G.; André, T.; Moulatlet, G.M.; Saka, M.N.; Araujo, M.H.T.; Tuomisto, H.; *et al.* 2022. Linking high diversification rates of rapidly growing Amazonian plants to geophysical landscape transformations promoted by Andean uplift. *Botanical Journal of the Linnean Society* 199: 36-52.

Flora e Funga in Flora e Funga do Brasil. 2025. Jardim Botânico do Rio de Janeiro. Available in: <https://floradobrasil.jbrj.gov.br/FB128461>. Accessed: 04 February 2025.

Guayasamin, J.M.; Ribas, C.C.; Carnaval, A.C.; Carrillo, J.D.; Hoorn, C.; Lohmann, L.G.; Riff, D.; Ulloa Ulloa, C.; Albert, J.S. 2024. Evolution of Amazonian biodiversity: A review. *Acta Amazonica* 54: e54bc21360.

Honório, M.; Silveira, M. 2024. Discovery of Buxaceae in Acre State, southwestern Amazon: First record of this ancient plant family in Brazil. *Phytotaxa* 675: 273–282.

Hopkins, M.J.G. 2019. Are we close to knowing the plant diversity of the Amazon? *Anais da Academia Brasileira de Ciências* 91: e20190396.

IBGE [Instituto Brasileiro de Geografia e Estatística]. 2004. Mapa de biomas do Brasil: primeira aproximação. IBGE.

IBGE [Instituto Brasileiro de Geografia e Estatística]. 2004. Manual técnico da vegetação brasileira. 2ª ed. IBGE, Coordenação de Recursos Naturais e Estudos Ambientais, Rio de Janeiro. 276p.

Kessler, M.; Smith, A.R. 2017. Prodromus of a fern flora for Bolivia. X. Hymenophyllaceae. *Phytotaxa* 328: 201–226.

Luize, B.G.; Tuomisto, H.; Ekelschot, R.; *et al.* 2024. The biogeography of the Amazonian tree flora. *Communications Biology* 7: 1240.

Medeiros, H.; Obermuller, F.A.; Daly, D.; Silveira, M.; Castro, W.; Forzza, R.C. 2014. Botanical advances in Southwestern Amazonia: The flora of Acre (Brazil) five years after the first Catalogue. *Phytotaxa* 177: 101–117.

Obermüller, F.A.; Medeiros, H.; Colli-Silva, M.; Silveira, M.; Almeida, T.; Delprete, P.G.; *et al.* 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 in: [https://catalogo-ucs-brasil.jbrj.gov.br]. Accessed: 29 January 2025.

POWO. 2025. Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Available in: https://powo.science.kew.org/. Accessed: 26 February 2025.

Pruski, J.F. 2023. The new genera *Laceanthos*, *Podocalea*, *Tepuipappus*, the resurrected genera *Lemmatium*, *Meyeria*, *Tonalanthus*, and other novelties in the *Calea* Alliance I. *Phytoneuron* 42: 1–171.

Ter Steege, H.; Prado, P.I.; Lima, R.A.F.; Pos, E.; Coelho, E.P.; Lima Filho, D.A.; *et al.* 2020. Biased-corrected richness estimates for the Amazonian tree flora. *Scientific Reports* 10: 10130.

Thiers, B. 2025 continuously updated. Index Herbariorum: A global directory of public herbaria and associated staff. New York Botanical Garden's Virtual Herbarium. Available from: http://sweetgum.nybg.org/science/ih/ Accessed: 29 January 2025.

Trujillo, W.; Balslev, H. 2023. *Piper svenningii* – a new species from Ecuador, Colombia, and Perú. *Nordic Journal of Botany* 2023: e03897.

Tuomisto, H.; Van Doninck, J.; Ruokolainen, K.; Moulatlet, G.M.; Figueiredo, F.O.G., Sirén, A. *et al.* 2019. Discovering floristic and geoecological gradients across Amazonia. *Journal of Biogeography* 46: 1734–1748.

Uribe, F.P.; Costa, A.F. 2025. *Guzmania in* Flora e Funga do Brasil. Jardim Botânico do Rio de Janeiro. Available in: <https://floradobrasil.jbrj.gov.br/FB6092>. Accessed: 3 February 2025.

Wurdack, J.J. 1980. Melastomataceae. In: Harling, G.; Sparre, B. (Eds.) Flora of Ecuador 13. University of Göteborg and Riksmuseum, Stockholm, pp. 1–406.

Zappi, D.C.; Milliken, W.; Soares, C.R.A.; Lucas, E.; Piva, J.H.; Frisby, S.; *et al.* 2006. Xingu State Park: Filling the gaps. *Brazilian Journal of Botany* 39: 751–778.

RECEIVED: 29/04/2025
ACCEPTED: 20/06/2025
ASSOCIATE EDITOR: Maria-Beatriz Caruzo
DATA AVAILABILITY: All the data that support the findings of this study were published in this article

AUTHOR CONTRIBUTIONS:

MARCUSSO, G.M.: Conceptualization, Data curation, Formal analysis, Funding acquisition, Methodology, Visualization, Writing – original draft, Writing – review & editing.
AZEVEDO, I.: Data curation, Writing – original draft.
BIRAL, L.: Conceptualization, Data curation, Formal analysis, Funding acquisition, Methodology, Visualization, Writing – original draft, Writing – review & editing.
DEMARCHI, L.O.: Conceptualization, Data curation, Formal analysis, Funding acquisition, Methodology, Visualization, Writing – original draft, Writing – review & editing.
FORZZA, R.C.; GOLDENBERG, R.; MARINHO, L.C.; MICHELANGELI, F.A.; TELES, A.M.: Data curation, Writing – original draft.
ZARTMAN, C.E.: Conceptualization, Data curation, Formal analysis, Funding acquisition, Methodology, Supervision, Visualization, Writing – original draft, Writing – review & editing.