

DAVID GUTIÉRREZ-DUQUE

Place of birth: Manizales, Caldas, COLOMBIA

Date of birth: September 2, 2000

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[Google Scholar Profile](#)

[ResearchGate Profile](#)

[CvLAC Profile](#)

RESEARCH INTERESTS

Plant biology; systematics; bioinformatics; ferns and lycophytes; collections-based research;
Andean plant diversity; conservation; inferential statistics

EDUCATION

2018-2024 **B.Sc. Biology**, Universidad de Caldas, Manizales, Caldas, Colombia

Thesis: “From genes to ecosystems: studies in genomics, taxonomy and plant ecology”

Supervisor: Dr. Carolina Feuillet Hurtado, carolina.feUILlet@ucaldas.edu.co

2025-current **M.Sc. Plant Biology (Systematics and Evolution)**, Universidade Federal de Pernambuco, Pernambuco, Recife, Brazil

Thesis: “Integrative taxonomy to elucidate the *Megalastrum subincisum* (Dryopteridaceae) species complex”

Supervisor: Dr. Thaís Elias Almeida, thais.elias@ufpe.br

RESEARCH EXPERIENCE

2024 **Research internship**, Universidad Autónoma de Guerrero, Guerrero, México.

Morphology, ornamentation and observation techniques of fern spores; additionally, field and herbarium work on pteridophytes and lycophytes of the State of Guerrero

Supervisor: Dr. Felipe Gómez Noguez

2022–2024 **Assistant Curator of Pteridophytes (ad-honorem)**, Herbarium of the University of Caldas (FAUC), Caldas, Colombia. *Identification and curation of pteridophytes and lycophytes at the FAUC herbarium*

PUBLICATIONS

5. **Gutiérrez-Duque, D.** & Posada-Herrera, J. M. in press. A new species of *Miconia* (Melastomataceae) with domatia from the Andean Cordilleras of Colombia. *Brittonia*.

4. Martinez, L. J. & **Gutiérrez-Duque, D.** 2024. Missing Data Estimation Based on Iterated

Penalized Linear Regressions Algorithms. International Journal of Mathematics and Computer Science. 19. 1189-1201.

3. **Gutiérrez-Duque, D.**; Prieto-Luna, J. A., Andrade-Ramos, M. J., Sierra-Giraldo, J. A., & Feuillet-Hurtado, C. 2024. Composición, estructura y diversidad florística del bosque Monteleón: Un relicto urbano del bosque subandino (Manizales, Colombia). Colombia Forestal 27(1): e20968 <https://doi.org/10.14483/2256201X.20968>
2. Cornejo, X.; **Gutiérrez-Duque, D.**; Arango-González, J. S.; Sierra-Giraldo, J. A. & Medellín-Zabala, D. 2023. *Gustavia montana* (Lecythidaceae): A New Species from the Andes in Colombia. Harvard Papers in Botany 28(2): 647-653
<https://doi.org/10.3100/hpib.v28iss2.2023.n2>
1. Orozco-Arias, S.; Dupeyron, M. **Gutiérrez-Duque, D.**; Tabares-Soto, R. & Guyot, R. 2023. High nucleotide similarity of three Copia lineage LTR retrotransposons among plant genomes. Genome 66(3): 51-61 <https://doi.org/10.1139/gen-2022-0026>

GRANTS & AWARDS

2021 “**Convocatoria de Semilleros**” Grant, Vicerrectoría de Investigaciones y Posgrados, Universidad de Caldas, Colombia (USD \$1082)

2019 **Honorable mention for high academic achievement**, Universidad de Caldas, Colombia

2017 **Member of the Colombian team**, XXVIII International Biology Olympiad, United Kingdom

2017 **Second place award**, I Colombian Biology Olympiad, Colombia

2016 **Silver medal award**, III Olimpiada de Ciencias Jr Americanas, Colombia

PRESENTATIONS

2024 XII Congreso Colombiano de Botánica - Colombia

Avances en el estudio del género Megalastrum (Dryopteridaceae) en Colombia

Authors: **Gutiérrez-Duque, D.**

2023 Día del Biólogo, Universidad de Caldas - Colombia

La historia de la Botánica en Colombia: una ciencia que estructuró la biología en el país

Authors: **Gutiérrez-Duque, D.**

2022 XI Congreso Colombiano de Botánica - Colombia

Helechos en medio de una selva de cemento: Estudio de los monilofitos y licofitos en los ecoparques de Manizales, Caldas

Authors: **Gutiérrez-Duque, D.**

2022 XI Congreso Colombiano de Botánica - Colombia

Flora vascular de Monteleón: El último relicto urbano de selva subandina en Manizales, Caldas (Colombia)

Authors: **Gutiérrez-Duque, D.**; Prieto-Luna, J. A., Andrade-Ramos, M. J., Sierra-Giraldo, J. A., & Feuillet-Hurtado, C.

2022 XXXI Simposio Internacional de Estadística - Colombia

Algoritmo para estimación de datos faltantes basado en regresiones lineales iteradas y penalizadas

Authors: Martinez, L.J. & **Gutiérrez-Duque, D.**

FIELD & HERBARIUM EXPERIENCE

Field Work: (*Locality [type ecosystem], Department/State, Country (year)*)

Manizales [Sub-Andean forest], Caldas, Colombia (2020, 2021, 2022, 2024); Cubarral [Andean forest], Meta, Colombia (2022); Riosucio [Tropical dry forest], Caldas, Colombia (2023); Villamaría, [Páramo ecosystem], Caldas, Colombia (2023); Norcasia-Samaná [Magdalena valley], Caldas, Colombia (2024); Chilpancingo [Oak-pine forest], Guerrero, México (2024); Carrizal de Bravos [Mesophyll forest], Guerrero, México (2024); Salamina [High-Andean forest], Caldas, Colombia (2024); Filandia-Salento [Andean forest], Quindío, Colombia (2024); Puntarenas-Limón [Tropical forest], Costa Rica (2025).
Number of collections: 850 plant specimens deposited in COL, CUVC, FAUC, FCQB, HUQ, HUA, JAUM and UDBC and herbaria.

Herbarium Work reviewing and studying the genus *Megalastrum*: (*Herbarium acronym, Department/State, Country (year)*)

FAUC, Caldas, Colombia (2022, 2023, 2024); HUA, Antioquia, Colombia (2023); JAUM, Antioquia, Colombia (2023, 2024); HUQ, Quindío, Colombia (2023); FCQB, Guerrero, México (2024); UAGC, Guerrero, México (2024); UAMIZ, México, México (2024); MEXU, México, México (2024); USJ, San José, Costa Rica (2025); CR, San José, Costa Rica (2025); COL, Bogotá, Colombia (2025).

REFERENCES

Thaís Elias Almeida, Ph. D. Professor, Departamento de Botânica, Universidade Federal de Pernambuco, Recife, Brazil, (+55) 81 99401 1230, thais.elias@ufpe.br

David Sanín, Ph.D. Professor, School of Biology, Universidad Industrial de Santander, Colombia, (+57) 313 798-7854, dav.sanin@gmail.com

Diana Medellín-Zabala, Ph.D.(c) Department of Ecology and Evolutionary Biology, University of Michigan, United States, (+1) 713 476-1178, dianamz@umich.edu