

SEBASTIAN EMILIO DIAZ CORTES

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<https://www.researchgate.net/profile/Sebastian-Diaz-C>

<https://scholar.google.com/citations?hl=en&user=eiC0CV4AAAAJ>

https://scienti.minciencias.gov.co/cvlac/visualizador/generarCurriculoCv.do?cod_rh=0001766711

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EDUCATION

Ph.D. (c) in Atmospheric Sciences. North Carolina State University. In Progress.

M.S. in Forest Management. Francisco José de Caldas District University. 12/2022.

B.S. in Forest Engineering. Francisco José de Caldas District University. 06/2019.

ACADEMIC EMPLOYMENT HISTORY

Graduate Research Assistant: *Integrative Biometeorology Lab*. Department of Marine, Earth, and Atmospheric Sciences; North Carolina State University. 08/2023-Present.

- Flux chamber measurements
- Eddy covariance flux tower maintenance
- Data analysis

Graduate Internship: *Contract No. 2596*. Regional Autonomous Corporation of Cundinamarca and Francisco José de Caldas District University. 07-11/2022.

- Vegetation sampling
- Botanical curatorship
- Data analysis

Laboratory Assistant: *Forest Herbarium (UDBC)*. Francisco José de Caldas District University. 02/2020-12/2022.

- Botanical samples processing
- Equipment training and lending
- Support in project assessment

Field Assistant: *Contract No. 1594.* Regional Autonomous Corporation of Cundinamarca and Francisco José de Caldas District University. 01-05/2018. *Contract No. 219,* Corporation for the Sustainable Development of Southern Amazon and Francisco José de Caldas District University. 08/2016-01/2017.

- Vegetation sampling
- Botanical curatorship
- Data analysis

Research Assistant: *Research Seedbed of Forest Diversity,* Forest Engineering Program, Francisco José de Caldas District University. 03/2016-06/2019.

- Vegetation sampling
- Botanical curatorship
- Data analysis

TEACHING EXPERIENCE

Graduate Teaching Assistant: Department of Marine, Earth, and Atmospheric Sciences; North Carolina State University. *Earth System Science:* 08-11/2023, 08-11/2024. *Introduction to Weather and Climate:* 01-04/2024, 01-04/2025, 08-11/2025, 01-04/2026, 08-11/2026.

- Laboratory and grading support

Teaching Assistant: Forest Engineering Program, Francisco José de Caldas District University. *Wood Properties:* 02-05/2016. *General Biology:* 02-05/2018.

- Laboratory and grading support

STUDENT ADVISING

Master Students: Luisa Betancourt (since 11/2025). Master in Forest Management, Francisco José de Caldas District University.

Master's Committee Member: Alejandra Chaparro (11/2025-05/2026). Master in Forest Management, Francisco José de Caldas District University.

PEER-REVIEWED PUBLICATIONS

Published Articles:

Díaz-C., S.E., Aldana, A.M., Pulido-Rodríguez, E.N., Casas-Caro, L.F., Correa, D.F., González-Abella, J.S., Stevenson, P.R. & López-Camacho, R. (2026). Functional analysis of wood traits, soil, and aboveground biomass in Terra firme and Igapó forests. *Revista de Biología Tropical*, 74, e2026194. <https://doi.org/10.15517/52pp5j92>

Díaz-C., S.E., Londoño-Hernández, D.J. & Ariza-Cortés, W. (2025). Diversity and structural patterns in Colombian Amazon forests along an altitudinal gradient. *Boletín Científico del Centro de Museos*, 29 (2), 85-104. <https://doi.org/10.17151/bccm.2025.29.2.4>

Díaz-C., S.E., Pulido-Rodríguez, E.N., Aldana, A.M. & López-Camacho, R. (2025). Functional patterns of wood traits in Terra firme and Igapó (tropical moist forests), Colombian Orinoquia. *Dendrobiology*, 94, 115-125. <https://www.idpan.poznan.pl/en-us/vol-94/94-115-125>

Ariza-Cortés, W., Carvajal-Rojas, L. & **Díaz-C., S.E.** (2025). New records of Leguminosae (Papilionoideae) to Colombian flora: *Lonchocarpus schiedeanus* (Schltdl.) Harms and *Bowdichia nitida* Spruce ex Benth. *Check List*, 21 (4), 1–7. <https://doi.org/10.15560/21.5.890>

Díaz-C., S.E., Londoño-Hernández, D.J. & Ariza-Cortés, W. (2023). Ecological analysis of tree communities in the Chicaque park, Cundinamarca (Colombia). *Boletín Científico del Centro de Museos*, 27 (2), 49-69. <https://doi.org/10.17151/bccm.2023.27.2.3>

Cárdenas-Camacho, L.M., **Díaz-C., S.E.**, Gómez-Anaya, W. & López-Camacho, R. (2021). Participatory analysis of ecosystem services in a protected area of tropical dry forest in Colombia. *Colombia Forestal*, 24 (1), 123-156. <https://doi.org/10.14483/2256201X.16548>

AWARDS AND FELLOWSHIPS

Mansour Doctoral Fellow. Fall 2023 – Spring 2024. North Carolina State University.
<https://grad.ncsu.edu/group/mansour-fellows/>

Colombia Biodiversa. 01/2021-12/2022. Alejandro Ángel Escobar Foundation.
<https://www.faae.org.co/colombiabiodiversa/tesis/sebastian-emilio-diaz-cortes-maestria-ii-2020/>

SYNERGISTIC ACTIVITIES

Professional Affiliations: Member of Research Group of Use and Conservation of Forest Diversity. Ministry of Science, Technology, and Innovation of Colombia, A1. 01/2019-present. <https://scienti.minciencias.gov.co/gruplac/jsp/visualiza/visualizagr.jsp?nro=00000000004568>

Journal Reviewer: Dendrobiology (11/2025, 03/2026). <https://www.idpan.poznan.pl/en-us/reviewers-2025>

SKILLS

Software: R, Matlab (Limited). QGIS, AutoCAD (Limited). Zen Lite, ImageJ (Limited). Specify, Herbaria Web Resources. Microsoft Office: Excel, Word, PowerPoint. Adobe Acrobat DC. Zotero.

Languages: Spanish (Native). English (Professional working proficiency).

Instrumentation: *Laboratory:* Analysis of flowers and wood tissues. Stereoscope, Microscope, Rotary Microtome. *Field:* Botany sampling and flux chambers. Tree Pole Pruner, Increment Borer, Camera, GPS; Semi-Rigid Chambers, LICOR 7810.

OTHERS

Talks: Diaz-C., S.E., Aguilos, M., King, J.S., Ng, D. & Rey-Sanchez, C. (2026). Methane emissions from soil and trees in forested wetlands of the Atlantic Coast (NC, USA). Southeastern Estuarine Research Society. Morehead (NC), USA.

Community Outreach: Rey-Sanchez, C., Diaz-C., S.E. & Ng, D. (2025). Test Your Greenhouse Gas Potential. Annual State of the Sciences (NCSU). Raleigh (NC), USA. <https://meas.sciences.ncsu.edu/2025/04/23/meas-outreach-state-sciences/>

Posters: Diaz-C., S.E., Ng, D., King, J.S., Ardon, M., Aguilos, M. & Rey-Sanchez, C. (2024). Methane fluxes from trees in coastal hardwood mixed forests (Southeastern-USA). American Geophysical Union -AGU- Annual Meeting. Washington D.C., USA. <https://studio.m-anage.com/agu/agu24/meetingapp.cgi/Paper/1669054>

Abstracts: Díaz-C., S.E., Aldana, A.M. & López-Camacho, R. (2023). Functional analysis of wood traits and aboveground biomass in tropical moist forests, Colombian Orinoquia. *Boletín “Semillas Ambientales”*, 17 (1), 29-33. <https://revistas.udistrital.edu.co/index.php/bsa/article/view/21361>

Book Chapters: López-Camacho, R., Torrejano-M., A. & Díaz-C., S.E. (2019). Vegetation (pp. 49-87). In: López-Camacho, R. & Rojas-Rojas, J.E. The tropical dry forest in CAR's territory. Bogotá, Colombia: Regional Autonomous Corporation of Cundinamarca -CAR- and Francisco José de Caldas District University. <https://car1.car.gov.co/uploads/files/62ace39d31970.pdf>

Other Articles: Sánchez-Quintero, S.N., Pico-Andrade, J., Ariza-Cortés, W. & Díaz-C., S.E. (2018). Effect of different gibberellin concentrations on the germination and longitudinal growth of *Prunus subcorymbosa* Ruiz ex Koehne. *Boletín "Semillas Ambientales"*, 12 (1), 174-182. <https://revistas.udistrital.edu.co/index.php/bsa/article/view/13630>

Complementary Training:

Google prompting essentials specialization. 2025. Google.

Good agricultural practices. 2021. National Training Service of Colombia (SENA).

Obtaining timber products from forests. 2016. SENA.

Essential oils: extraction, uses and applications. 2014. SENA.

Soil in agriculture. 2014. SENA.

Parameters for calculating a water balance. 2014. SENA.