

SEBASTIÁN EMILIO DÍAZ CORTÉS

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

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EDUCATION

B.Sc. in Forest Engineering,
District University of Bogotá - Colombia.
06/2019.

M.Sc. in Forest Management, Use, and Conservation;
District University of Bogotá - Colombia.
12/2022.
Advisors: Dr. Ana Maria Aldana & Dr. (c) René Lopez Camacho

COURSES:

“Good agricultural practices”; 40 hours. 2021. Colombian National Service of Learning -SENA-.

“Obtaining timber products from forests”; 40 hours. 2016. SENA.

“Essential oils: extraction, uses and applications”; 40 hours. 2014. SENA.

“Soils in agriculture”; 40 hours. 2014. SENA.

“Parameters for calculating a water balance”; 40 hours. 2014. SENA.

ACADEMIC EMPLOYMENT HISTORY

Research Assistant in Research Seedbed of Forest Diversity –DIFI-; Forest Engineering career, District University of Bogotá. 03/2016-06/2019. Supervisor: M.Sc. William Ariza Cortés, contact: wgarizac@udistrital.edu.co

- Vegetation sampling and permanent plots monitoring.
- Botanical curatorship.
- Processing and data analysis.

Field Assistant in Contract No. 219, between Corporation for Sustainable Development of South of Amazon –CORPOAMAZONIA- and District University of Bogotá –UD-. 08/2016-01/2017. Supervisor: M.Sc. William Ariza Cortés.

- Vegetation sampling.
- Botanical curatorship.
- Processing and data analysis.

Research Assistant in Research Seedbed of Initial Ecological Characterizations of High Andean Forests –CEIBA-; Forest Engineering career, District University of Bogotá. 08/2017-04/2018. Supervisor: Dr. (c) René López Camacho, contact: rlopezc@udistrital.edu.co

- Vegetation sampling.
- Botanical curatorship.
- Processing and data analysis.

Field Assistant in Contract No. 1594, between Autonomous Regional Corporation of Cundinamarca –CAR- and District University of Bogotá –UD-. 01/2018-05/2018. Supervisor: Dr. (c) René López Camacho.

- Vegetation sampling.
- Botanical curatorship.
- Processing and data analysis.

Laboratory Assistant of Forest Herbarium “Gilberto Emilio Mahecha Vega” –UDBC-, District University of Bogotá. 02/2020-12/2020. Supervisor: M.Sc. William Ariza Cortés.

- Digitalization and actualization of information of botanical samples, in the reference collection, in Specify software.
- Drying, quarantining, and labeling of botanical samples.
- Support in project formulation.
- Laboratory equipment training and lending.

Curator of Forest Herbarium “Gilberto Emilio Mahecha Vega” –UDBC-, District University of Bogotá. 02/2021-12/2021. Supervisor: M.Sc. William Ariza Cortés.

- Taxonomic identifying, classification, and actualization of botanical samples in the reference collection.
- Database actualization in Specify software.
- Drying, quarantining, and labeling of botanical samples.
- Support in project formulation.

- Management for collection growth and botanical samples exchange with other herbariums.
- External services processing.

Curator of Forest Herbarium “Gilberto Emilio Mahecha Vega” –UDBC-, District University of Bogotá. 02/2022-12/2022. Supervisor: M.Sc. William Ariza Cortés.

- Taxonomic identifying, classification, and actualization of botanical samples in the reference collection.
- Database actualization in Specify software.
- Drying, quarantining, and labeling of botanical samples.
- Support in project formulation.
- Management for collection growth and botanical samples exchange with other herbariums.
- External services processing.

Graduate Internship in Contract No. 2596, between Autonomous Regional Corporation of Cundinamarca –CAR-, Bogotá Water and Sewerage Company -EAAB-, and District University of Bogotá –UD-. 07/2022-11/2022. Supervisor: Eng. Katherine Sanabria Maldonado, contact: yksanabriam@correo.udistrital.edu.co

- Vegetation sampling.
- Botanical curatorship.
- Processing and data analysis.

TEACHING EXPERIENCE

Teaching Assistant, Timber Properties; Forest Engineering career, District University of Bogotá. 02/2016-05/2016. Supervisor: M.Sc. Nancy Pulido Rodríguez, contact: enpulidor@udistrital.edu.co

- Laboratory assistance in class and extra sessions.

Teaching Assistant, General Biology; Forest Engineering career, District University of Bogotá. 02/2018-05/2018. Supervisor: M.Sc. William Ariza Cortés.

- Laboratory assistance in class and extra sessions.

Teaching Assistant, Science of Change; Department of Marine, Earth and Atmospheric Sciences; North Carolina State University. 08/2023-12/2023. Supervisor: Ph.D. Elisabeth Falk.

Teaching Assistant, Introduction to Weather and Climate; Department of Marine, Earth and Atmospheric Sciences; North Carolina State University. 01/2024-05/2024. Supervisor: Ph.D. Brian Eder.

PEER-REVIEWED PUBLICATIONS

Book chapter:

López-Camacho, R., Torrejano, A. & **Díaz-C., S.E.** (2019). Vegetation. (pp. 49 - 87). In: López-Camacho, R. & Rojas-Rojas, J.E. (Eds.). Tropical Dry Forests in CAR's Territories. Colombia, Bogotá D.C.: Regional Corporation of Cundinamarca and District University of Bogotá. ISBN: 978-958-5480-22-3

Scientific Articles:

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

Díaz-C., S.E., Londoño-Hernandez, D.J. & Ariza-Cortés, W. (2023). Ecological analysis of communities on the tree vegetation from Chicaque park, Cundinamarca. *Boletín Científico "Centro de Museos": Museo de Historia Natural*, 27 (2), 49-69. DOI: 10.17151/bccm.2023.27.2.3

Articles in Non-Scientific Publications:

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. ISSN: 2463-0691.

Submitted Articles:

Díaz-C., S.E., Aldana, A.M., Carreño-Díaz, M.Y., Pulido-Rodríguez, E.N. & López-Camacho, R. Functional analysis in terra firme and igapó forests: xylem traits, soil nutrients, and above-ground biomass. Submitted to *Revista de Biología Tropical*.

Articles in Preparation:

Díaz-C., S.E., Pulido-Rodríguez, E.N., Carreño-Díaz, M.Y., Aldana, A.M. & López-Camacho, R. Functional patterns of wood traits in terra firme and igapó tropical moist forests, Colombian Orinoquia. To be submitted to *Dendrobiology*.

Díaz-C., S.E., Londoño-Hernandez, D.J. & Ariza-Cortés, W. Patterns of richness, diversity, and structure along an elevation gradient in wet forests from south of Colombian Amazon. To be submitted to *Boletín Científico "Centro de Museos": Museo de Historia Natural*.

Ariza-Cortés, W., **Díaz-C., S.E.** & Trujillo-Trujillo, E. New Leguminosae-Papilionoideae records in Colombian flora: *Lonchocarpus schiedeanus* and *Bowdichia nitida*. To be submitted to *Phytokeys*.

AWARDS AND FELLOWSHIPS

“Colombia Biodiversa” Fellowship. 01/2021-12/2022. “Alejandro Ángel Escobar” Foundation.

Mansour Doctoral Fellowship. Fall/2023-Spring/2024. North Carolina State University.

SERVICE AND PROFESSIONAL ASSOCIATION MEMBERSHIPS

Member of Research Group of Use and Conservation of Forest Diversity. Ministry of Sciences and Technology of Colombia, A1. 05/2021-present.

SKILLS

Software:

R. Packages: vegan, FactoMineR (factoextra, NbClust), agricolae, PMCMR, stats, lavaan (semPlot), nlme, ggplot2, car, MASS, mda, PERMANOVA, FD, ConR, WorldFlora, BIOMASS.

Zen Lite. ImageJ.

Specify. Botanical web resources.

QGIS. AutoCAD. Basic knowledge: GIS and topography.

Vensim. Atlas.ti. Basic knowledge: Systems modeling and qualitative analysis.

Microsoft Office (Excel, Word, PowerPoint, Publisher). Adobe Acrobat DC. Zotero.

Languages:

Spanish (Native).

English (B2). DET. 02/2023-02/2025.

Instrumentation:

Laboratory: analysis of flowers and wood tissues. Stereoscope (Stemi SV11 –Zeiss-), Micro-Stereoscope (Discovery V12 –Zeiss- with AxioCam ICc5), Microscope (AxioStarPlus –Zeiss- with AxioCam ERC5S), Rotatory Microtome (RM2255 –Leica-).

Field: botany sampling (including wood cores). Tree pole pruner, Increment borer, Camera, GPS.