

Jorge A. Giraldo

Ph.D., Ecology

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<https://scholar.google.com/citations?user=4nNtlS-EAAAAAJ&hl=es>

EDUCATION

Universidad Nacional de Colombia, Medellín, Colombia.

Ph.D. Ecology. 2017-2021. Dissertation defense: August 31 2021. Degree: December 2021.

Dissertation: "Annual Tree Rings in the Rainiest Forest of the Americas" (<https://shortest.link/1wSv>)

Universidad Nacional de Colombia, Medellín, Colombia

M.Sc. Forest and Environmental Conservancy, 2012

Thesis: "Anillos, Clima y Actividad Solar" (<https://shortest.link/1wSy>)

Universidad Nacional de Colombia, Medellín, Colombia

B.S. Forestry Engineer, 2010.

Thesis: "Estudio del crecimiento de *Prioria copaifera* empleando técnicas dendrocronológicas"

ADDITIONAL TRAINING

- Workshop: 19th International winter school: Wood anatomy & tree-ring ecology. Switzerland. November 2019.
- Course in Data analysis in R environment. Facultad de Ciencias Agrarias, Universidad Nacional de Colombia Sede Medellín. 2019.
- Research internship in Max Planck Institute for Biogeochemistry, Jena, Germany. November 2018 to January 2019 and December 2019.
- Workshop on Chronology and integration of spatial and temporal data in post-environmental interpretations. LOTRED-SA. Universidad Eafit. 2014

GRANTS AND HONORS

- Florence Hawley Ellis Diversity Award (runner up) 2021
- Laureate mention in Ph.D. dissertation (2021)
- Doctoral Scholarship, Colciencias, Colombia (2017-2021)
- Young scientist (Scholarship), Colciencias, Colombia (2012)

PUBLICATIONS

- Radiocarbon and dendrochronology applied in a legal dispute: a case from Colombia. del Valle JI. & **Giraldo, JA**. Radiocarbon (2020).
- **Giraldo, JA** & del Valle JI. Sidereal and climate variations, observed in Colombia: record from tree rings (Originally in Spanish). 7° Congreso Forestal Español. 7CFE01-064. Sociedad Española de Ciencias Forestales. ISBN: 978-84-941695-2-6 (2017).
- Flood-promoted vessel production in *Prioria copaifera*, a tree of the Darien Gap, Colombia. López, J; del Valle JI; **Giraldo, JA**. Tree Physiology (2014).
- **Giraldo, JA**, Giraldo VD & del Valle JI. Solar activity and climate recorded from tree rings of *Albizia niopoides* (Originally in Spanish). Boletín del Centro de Investigación en Ecosistemas y Cambio Global (2012).
- Lara, CE & **Giraldo, JA**. Ecology and silviculture of the Catival forest (Originally in Spanish). Boletín del Centro de Investigación en Ecosistemas y Cambio Global (2011).
- **Giraldo, JA** & del Valle JI. Growth study of *Prioria copaifera* (Caesalpinaceae) using dendrochronological techniques (Originally in Spanish). Revista de Biología tropical / International Journal of Tropical Biology and Conservation (2011).

- **Giraldo, JA.** Dendrochronology in the tropic: Current and potential applications (Originally in Spanish). Colombia Forestal (2011).

BOOK CHAPTERS

- Dendrochronological Potential of Trees from America's Rainiest Region. **Giraldo, JA;** del Valle, JI; Sierra, CA; Melo O. In Pompa-Garcia, M & Camarero, JJ (Eds.) Latin American Dendroecology – Combining tree-ring sciences and ecology in a mega diverse territory Springer (2020).
- Methodological applications to study of urban trees (Originally in Spanish). **Giraldo, JA.** En: Universidad Nacional de Colombia & Alcaldía de Envigado (eds.). Manual de Silvicultura Urbana (pp 231-240). Centro de Publicaciones Universidad Nacional de Colombia Sede Medellín (2015).

MANUSCRIPTS UNDER REVIEW

Giraldo, JA; del Valle, JI; González-Caro, S; Sierra, CA. Isotope signatures in tree rings reveal growth rhythms occurring in the least rainy season in a hyper-humid neotropical forest. Submitted to Trees.

CONTRIBUTED PRESENTATIONS

- Wood isotope variation ($\delta^{18}\text{O}$ and $\delta^{13}\text{C}$) suggest new insights on growth rhythms in trees from the neotropical rainiest forest. AGU Fall Meeting (2020).
- Radiocarbon and dendrochronology applied in legal disputes: a case from Colombia. I Latin American Radiocarbon Conference. Niterói-Brazil (2019).
- Annual growth rings in trees from the rainiest region of the Americas. I Latin American Radiocarbon Conference. Niterói-Brazil (2019).
- Adaptabilidad de la arquitectura hidráulica de *Cedrela odorata*. IX Congreso Colombiano de Botánica (2017).
- Estimación de las emisiones potenciales de CO_2 , en el marco del proyecto Hidroeléctrico Ituango. 7° Simposio Nacional Forestal, Medellín, Colombia (2016).
- A mathematical model of diameter growth using tree rings: Case *Cariniana pyriformis*. Ameridendro 2016: Third American Dendrochronology Conference, Mendoza, Argentina (2016).
- A wavelet data analysis of cosmic rays, solar activity records in tropical tree rings. Lotred-SA. 3rd International Symposium Climate Change and Human Impact in Central and South America Over the Last 2000 Years Observations and Models. Universidad Eafit, Medellín, Colombia (2014).

PROFESSIONAL EXPERIENCE

- Teaching Assistant: Dendrochronology. Universidad Nacional de Colombia, 2012 – 2019 – 2021.
- Teaching Assistant: Biophysics. Universidad San Martín, Medellín, Colombia 2012 – 2013.
- Technical coordination in restoration project. Centro de Ciencia y Tecnología de Antioquia 2018.
- Research Assistant. Universidad Nacional de Colombia. 2017.
- Resident Engineer: Implementation of permanent plots and development of the cover monitoring of vegetation, landscape and ecological restoration activities in the tropical dry forest. Universidad Nacional de Colombia. 2014-2015.
- Technical coordination in restoration projects. Corporación Parque Arví. 2014.

PROFESSIONAL SERVICE

Journal reviews: Ecosistemas (2); Revista Biología Tropical (2); Revista Acta Botánica Venezolana (1).

REFERENCES

- Jorge Ignacio del Valle. Titular Professor, Forest Sciences Department, Universidad Nacional de Colombia. M.S.C (Universidad de Costa Rica, 1975) jidvalle@unal.edu.co
- Carlos A. Sierra. Research group leader, Max Planck Institute for Biogeochemistry. Ph.D. (Oregon State University, 2008) csierra@bgc-jena.mpg.de