

CURRICULUM VITAE

Laia Andreu-Hayles

CURRENT ADDRESS

Tree-Ring Laboratory
Biology and Paleo Environment Division
Lamont-Doherty Earth Observatory of Columbia University
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EDUCATION

- **Ph.D. University of Barcelona.** Thesis entitled “*Climate and atmospheric CO₂ effects on Iberian pine forests assessed by tree-ring chronologies and their potential for climatic reconstructions*” defended on **25 October 2007**. Maximum available qualification obtained: *Magna Cum Laude* by unanimity. European Doctorate mention award.
- Master of Ecology entitled “*Titulació d'Estudis Avançats en Ecologia*”, Department of Ecology, Faculty of Biology, University of Barcelona, 2000-2002.
- **B.S. in Biology**, University of Barcelona, Spain, September 1995 to June 2000. Five subjects with honors.

CURRENT PROFESSIONAL ACTIVITY

- **Research Professor** of the **Catalan Institution for Research and Advanced Studies (ICREA)** at the **Ecological and Forestry Applications Research Center (CREAF)**. Full time (100%) since January 2023 to present. Part-time (25%) from September 2020 to December 2022.
- **(Leave of Absence) Lamont Associate Research Professor of Columbia University**, New York, USA. Principal Investigator at the Tree-Ring Laboratory of the Lamont-Doherty Earth Observatory and Group Leader of the Isotope Geochemistry Tree-Ring group. Senior Staff from 1 July 2020 to present (Leave of Absence since January 2023) and Junior Staff from July 2017 to June 2020.
- **Lecturer in the Master of Science in Sustainability Management (SUMA), School of Professional Studies, Columbia University**, July-August 2025, course ‘*Water Resources and Climate*’ (SUMA4147_001_2025_2).

PROFESSIONAL EXPERIENCE

- Lamont Assistant Research Professor, Tree-Ring Laboratory, Lamont-Doherty Earth Observatory of Columbia University, New York, USA, full time from 1 October 2014 to 30 June 2017, part-time from 1 October 2012 to 30 September 2014.
- Adjunct Associate Research Scientist, Tree-Ring Laboratory, Lamont-Doherty Earth Observatory of Columbia University, New York, USA, 29 October 2011 to 30 September 2012.
- Postdoctoral Research Fellow, Tree-Ring Laboratory, Lamont-Doherty Earth Observatory of Columbia University, New York, USA, 29 May 2009 to 28 October 2011.
- Lecturer of the course ‘*Water Resources and Climate*’ in the Master of Science in Sustainability Management (SUMA), School of Professional Studies, Earth Institute of Columbia University:
 - Summer 2024: July-August 2024 (SUMA4147_001_2023_2);
 - Summer 2023: July-August 2023 (SUMA4147_001_2023_2);
 - Summer 2022: July-August 2022 (SUMA4147_001_2022_2);
 - Summer 2021: July-August 2021 (SUMA4147_001_2021_2);
 - Summer 2020: July-August 2020 (SUMA4147_001_2020_2);
 - Summer 2019: July-August 2019 (SUMA4147_001_2019_2);
 - Spring 2019: January-April 2019 (SUMA4147_001_2019_1);
 - Summer 2018: July-August 2018 (SUMA4147_001_2018_2);
 - Spring 2018: January-April 2018 (SUMA4147_001_2018_1);
 - Summer 2017: July-August 2017 (SUMA4147_001_2017_2);
 - Fall 2016: September-December 2016 (SUMA4147_001_2016_3);
 - Summer 2016: July–August 2016 (SUMA4147_001_2016_2).
- Lecturer of the course ‘*Water Resources and Climate*’ in the Master of Science in Sustainability Management (SUMA), School of Continuing Education, Earth Institute of Columbia University:
 - Fall 2015: September-December 2015 (SUMA4147_001_2015_3);
 - Summer 2015: May-July 2015 (SUMA4147_001_2015_2);
 - Fall 2014: September–December 2014 (SUMA4147_001_2014_3);
 - Fall 2013: September–December 2013 (SUMA4147_001_2013_3).
- Talented junior researcher at the Catalan Institute of Climate Sciences (IC3), Barcelona, Catalonia, Spain, 1 June 2011 to 25 October 2014.
- Adjunct Research Scientist, Department of Ecology, University of Barcelona, 2009-2014.
- Research Associate (November 2007 to May 2009) and Research Assistant (June 2006 to October 2007), Department of Ecology, University of Barcelona, Spain, in the European project MILLENNIUM: “*European climate of the last millennium*” (GOCE 017008).
- Research Assistant (February 2003 to January 2006), Department of Ecology, University of Barcelona, Spain, in the European project ISONET: “*400 years of annual reconstructions of European climate variability using a high resolution ISotopic NETwork*” (EVK2-2001-00237).
- Graduate Fellow (January 2000 to December 2001) and undergraduate volunteer (September to December 1999), Department of Ecology, University of Barcelona, Spain. European project FORMAT: “*Sensitivity of tree-growth to climate change and growth modelling from past to future*” (ENV4-CT97-0641).

CAREER BREAKS

Three career breaks for parental leave for the periods: 11/29/2007-03/18/2008 (approx. 4 months), 09/15/2011-02/09/2012 (approx. 5 months) and 10/13/2017-01/16/2018 (approx. 13 weeks). A more detailed table below.

Status	Periods	Duration
Parental leave	11/29/2007-03/18/2008	16 weeks
Parental leave	10/21/2011-02/11/2012	16 weeks
20% of full-time	10/15/2012-09/30/2013	1 year
50% of full-time	10/01/2013-09/30/2014	1 year
Parental leave	10/13/2017-01/16/2018	13 weeks

FELLOWSHIPS and AWARDS

- Excellence in Mentoring Award (*Scientific Category*, 2023) of the Lamont-Doherty Earth Observatory of Columbia University, Award ceremony 10 May 2024, New York, USA.
- Climate & Life of Columbia University fellow Award (2017)
- Awarded with the Marie Curie International Outgoing Fellowship (IOF) (call: FP7-PEOPLE-2009-IOF). Proposal N° 253277. Acronym: TREE-RINGS & CLIMATE. Grant agreement signed on 1 October 2010.
- Extraordinary Doctorate Award, University of Barcelona (“*Premi Extraordinari de Doctorat, Universitat de Barcelona*”) awarded on 26 January 2010.
- Awarded with “*Beatriu de Pinós*” (BP-DGR) postdoctoral grant 2008 (call: DOGC-n°5237-16.10.2008), resolution on 23 April 2009.
- Awarded with MICINN mobility grant for postdoctoral research 2008 (call: BOE-13.03.2009), resolution on 21 November 2008.
- European Doctorate mention award (2007).
- Grant for the partial fulfillment of the tuition fees of the Master of Ecology (2002). Awarded by the University of Barcelona due to subjects passed with honors.
- Undergraduate fellowship of the University of Barcelona (2000), Department of Ecology, University of Barcelona. Awarded by the Spanish Ministry of Education and Science.

MENTORING

Postdoctoral Researchers

- Mentor of Postdoctoral Research Fellow **Clara Rodríguez-Morata** at CREAM from March 2023 to October 2024 and at the Tree-Ring Laboratory, Lamont-Doherty Earth Observatory, Columbia University, December 2020 to November 2022.
- Mentor of Postdoctoral Research Fellow **Kathelyn Paredes-Villanueva** at the Tree-Ring Laboratory, Lamont-Doherty Earth Observatory, Columbia University, February 2022 to July 2024

- Mentor of Postdoctoral Research Earth Institute Fellow **Arturo Pacheco-Solana** at the Tree-Ring Laboratory, Lamont-Doherty Earth Observatory, Columbia University, 4 November 2020 to 4 October 2023.
- Mentor of **Caroline Leland**, Frontiers of Science Postdoctoral Fellow of Columbia University, August 2019 to December 2021.
- Mentor of Postdoctoral Research Scientist **Milagros Rodríguez-Catón** at the Tree-Ring Laboratory, Lamont-Doherty Earth Observatory, Columbia University, 17 April 2018 to June 2020.
- Mentor of Postdoctoral Research Fellow **Benjamin Gaglioti** at the Tree-Ring Laboratory, Lamont-Doherty Earth Observatory, Columbia University, September 2016 to January 2019.
- Mentor of Postdoctoral Research Fellow of **Mathieu Levesque** at the Tree-Ring Laboratory, Lamont-Doherty Earth Observatory, Columbia University, July 2014 to December 2016.

PhD Students

- Ph.D. advisor of **Filippo Del Stabile**, graduate student at the Department of Animal Biology, Plant Biology and Ecology, University of Barcelona, September 2024 to present.
- Ph.D. advisor of **Josep Barriendos**, graduate student at the Department of Geography, University Autonomous of Barcelona, June 2023 to present.
- Ph.D. advisor (co-sponsor) of **Rose Oelkers**, graduate student at the Department of Earth & Environmental Sciences, Columbia University, September 2018 to September 2024.
- Ph.D. advisor (co-sponsor) of **Caroline Leland**, graduate student at the Department of Earth & Environmental Sciences, Columbia University, September 2013 to May 2019.
- Ph.D. advisor (committee member) of **Marceau Guerin**, graduate student at the Department of Earth & Environmental Engineering, Columbia University, January 2014 to May 2018.

Graduate students

- Mentor of **Ginette Vilma Alicia Ticse Otarola**, graduate student of Universidad Continental, Huncayo, Peru, from October 2019 to present.
- Mentor of **Trox Nixon**, technician at the TRL, 2019 to September 2023.
- Mentor of **Sara Morales Acosta** graduate student from Universidad Mayor the San Andrés at the Herbario Nacional of Bolivia, LaPaz, from 2021 to 2023.
- Mentor of **Doris Bianca Crispin De La Cruz**, graduate student of Universidad Continental, Huncayo, Peru, from October 2019 to 2022.
- Mentor of **David Andrés Herrera Ramírez**, graduate student at the UNALMED, Universidad Nacional de Medellin, Colombia, February 2012 to July 2015.

Undergraduate Students

- Mentor of **Diego Israel Reyes Andrade**, undergraduate student from undergraduate student from Universidad de Loja, Loja, Ecuador, from December 2021 to present.
- Mentor of **Medalith Miranda Guzman** and **Jesus Miguel Condori Benites**, TFG Dissertation entitled: “*Evaluación de la sensibilidad climática en tres especies forestales longevas en la provincia*”

Tahuamanu, Madre de Dios” Study in progress. Universidad Nacional Amazonica De Madre De Dios, Facultad De Ingeniería, Madre de Dios, Peru, from December 2023 to present.

- Mentor of **Adriana Rodrigo Hurtado**, undergraduate student from Universidad Mayor the San Andrés at the Herbario Nacional of Bolivia, La Paz, from 2021 to 2023.
- Mentor of **Jeanette Pacajes**, undergraduate student from Universidad Mayor the San Andrés at the Herbario Nacional of Bolivia, LaPaz, from 2019 to 2021.
- Advisor of **Mario Garcia**, Columbia University undergraduate student funded through the Work Study Program of Columbia University academic year 2018-2019, 17 September 2018 to December 2019.
- Advisor of **Emily Utset**, Columbia University undergraduate student funded through the Earth Institute Fall Research Assistant Program 2017.
- Advisor of **Richard Li**, Columbia University undergraduate student funded through the Earth Institute Spring Research Assistant Program 2017, the Earth Institute Fall Research Assistant Program 2016 and the LDEO Summer Intern Program May-August 2016.
- Supervisor/advisor of **Rose Oelkers**, laboratory technician, August 2015 to August 2018.
- Summer intern advisor of **Leah Marshall**, undergraduate student at the LDEO summer intern program, Columbia University, 6 June to 10 August 2017.
- Advisor of **Elisabeth Hiers**, undergraduate student funded through the Work Study Program of Columbia University, October 2015 to May 2016.
- Summer intern/undergraduate advisor of **Ana González**, undergraduate student at the Department of Earth & Environmental Sciences, Columbia University, July 2013 to August 2014.

PHD, MASTER THESIS AND TFG SUPERVISED

- **PhD Rose Oelkers**, Dissertation entitled ‘*Disentangling tree growth and climate response of Andean-Amazon forests in Bolivia*’, Department of Earth and Environmental Sciences of Columbia University, September 18, 2024, Lamont-Doherty Earth Observatory, Palisades, New York, USA.
- **PhD Caroline Leland**, Dissertation entitled ‘*Impacts of Partial Cambial Dieback on Tree-ring Records from Ancient Conifers*’, Department of Earth and Environmental Sciences of Columbia University, May 2, 2019, Lamont-Doherty Earth Observatory, Palisades, New York, USA.
- **TFG Marc Solé Vilajuliu**, TFG entitled ‘*Comparació entre els mètodes de teledetecció i les mostres de camp en l’anàlisi del artíc greening en una localitat de l'oest de Groenlàndia*’. June 30, 2023. Geography degree, University of Barcelona, Spain.
- **TFG Adriana Esther Rodrigo Hurtado**, Dissertation entitled ‘*Evaluación dendrocronológica de *Amburana cearensis* (Allemão) A.C. Sm. (Fabaceae) en la comunidad Virgen del Rosario (PN-ANMI Madidi)*’. May 22, 2023. Universidad Mayor de San Andrés, La Paz, Bolivia.
- **Master thesis David Herrera** entitled ‘*Non-annual tree rings in a climate sensitive *Prioria copaifera* chronology in the Atrato River, Colombia*’. July 2015. Universidad Nacional de Colombia, Sede Medellín, Medellín, Colombia (official certificate September 2, 2015).

INVITED COMMITTEES, PANELS and SESSIONS

- **Primary convener and chair** of the Global Change session '*Climate Change, Variability, and Impacts in South America*' GC21B (I Oral) and GC23C (I Poster), Fall Meeting AGU 2024, Washington DC USA, 9-13 December 2024.
- **Member of the evaluation panel** for the **Postgraduate Abroad Fellowships Programme 2024** from "la Caixa" Foundation (face-to-face selection committee LIFE SCIENCES), 14-16 May 2024, Barcelona.
- **Reviewer for the National Science Foundation** of the United States of America of a research project submitted for consideration to the Paleo Perspectives on Present and Projected Climate (P4CLIMATE) solicitation, November-December 2024..
- **Member of the PhD Committee** of Alyssa Brown in the evaluation of the PhD Dissertation Proposal 'Mechanisms of recovery: a process-focused approach to examine tropical forest resilience after severe hurricane disturbance', E3B department of Columbia University, 11 October 2024, New York, USA.
- **Member of the Master Thesis Committee** of Meagan Walker in the evaluation of the master thesis entitled 'Reconstructing solar energetic particle events using tree rings: does species affect estimates of atmospheric $\Delta 14C$?', 22 May 2024, West Virginia University, USA.
- **Member of the PhD Committee** of Cristina Valeriano Peñas in the evaluation of the PhD Dissertation entitled 'Applying process-based growth models to interpret the responses of Iberian forests to drought and climate change?' 19 January 2024, Escuela Técnica Superior de Ingeniería de Montes, Forestal y del Medio Natural, Spain.
- **Participant by invitation** 'Taula rodona: Passat, present i future dels canvis climàtics i paisatgístics', SIMPOSI PAISATGES HABITATS, 29 November 2024, Parc Arqueològic Mines de Gavà, Spain.
- **Member of the Steering Committee Ecosystem Modeling Facility (EMF) of CREAM** from March 15, 2022, to present. Meetings hold in-person: 19/06/24, 27/10/2023, 02/06/2023, 21/02/2023, 01/04/2022, 15/03/2022.
- **Primary convener and chair** of the Global Change session '*Climate Change, Variability, and Impacts in South America*' GC44C (I Oral) and GC41I (I Poster), Fall Meeting AGU 2023, San Francisco, USA, 11-15 December 2023.
- **Participant by invitation** 'Meeting of Arctic experts - Delegació als Països Nòrdics i als Països Bàltics Generalitat de Catalunya' - Departament d'Acció Exterior i Unió Europea, May 9, 2023, Barcelona, Spain.
- **Member of discussion panel** '*La natura com a arxiu. Fonts per a l'estudi de la història ambiental*' in the 'XVIII Congrés d'Història de Barcelona', 23 November 2023, Barcelona, Spain.
- **Participant by invitation** 'COST Action: CA21138 - Joint effects of CLimate Extremes and Atmospheric depositioN on European FORESTs', First CLEANFOREST Annual meeting, 23-24 May 2023, Thessaloniki, Greece.
- **Member of the Screening Panel** for the 2023 Maths for America (MfA) on June 10, 2023, for virtual applicant screening process.

- **Participant in working groups** ‘CVAS + 2k + TSM PAGES Meeting’, (hybrid) - March 6-10, 2023, AWI Potsdam, Germany."
- **Primary convener** and **chair** of the Global Change session ‘*Changes and impacts of climate variability in South America*’ GC21A (I Online Poster Discussion), GC22F (II Poster) and GC25B (III Oral), Fall Meeting AGU 2022, Chicago, USA, 12-16 December 2022.
- **Judge** for the Outstanding Student Presentation Awards (OSPA), Fall Meeting AGU 2022, Chicago, USA, 12-16 December 2022.
- **Primary convener** and **chair** of the Symposium entitled ‘*Dendrochronological progress in tropical Americas*’ AMERIDENDRO Conference, June 27-30, 2022, Montreal, Canada.
- **Judge** for the Student Presentation Awards, AMERIDENDRO Conference, June 27-July 1, 2022, Montreal, Canada.
- **Member of the Screening Panel** for the 2022 Maths for America (MfA) on June 4, 2022, for virtual applicant screening process.
- **Primary convener** of the Global Change sessions ‘*Changes and impacts of climate variability in South America*’ GC51B (I Oral) and GC51C (II Poster), Fall Meeting AGU 2021, New Orleans, USA, 13-17 December 2021.
- **Member of the Dissertation Prospectus committee** for the Dissertation Proposal of Rose Oelkers on October 7th 2021 entitled ‘*New insights for Tropical Dendrochronology in Northern Bolivia*’
- **Guest editor** of the special issue in the peer-reviewed international journal *Dendrochronologia* (IF 2.293, 2019) entitled ‘*Advances in tropical and subtropical Dendrochronology in South America*’ from December 2020 to present.
- **Member of the Searching Committee** for the LARP Carbon Management open Call, LDEO, Fall 2021 – Winter 2022.
- **Member of the Screening Panel** for the 2021 Maths for America (MfA) on June 12, 2021 and June 6, 2021 for virtual applicant screening process of master teachers of math and science.
- **Judge** for the Outstanding Student Presentation Awards (OSPA), Fall Meeting AGU 2021, New Orleans, USA, 13-17 December 2021.
- **Member of the Screening Panel** for the 2020 Maths for America (MfA) on Saturday October 17, 2020 (virtual) for a virtual applicant screening process
- **Member of the PhD Committee** of Rose Oelker’s Qualifying Exams and master thesis entitled ‘*Warming-Induced Shift in White Spruce Growth at Mount Sukakpak, Alaska*’, Thursday June 25 2020 at 10 am held via Zoom.
- **Primary convener** of the Global Change session ‘*Changes and impacts of climate variability in South America*’ GC51A (I Oral) and GC43E (II Poster), Fall Meeting AGU 2019, San Francisco, USA, 9-13 December 2019.
- **Member** of the Committee of the PhD Defense of Caroline Leland, Dissertation entitled '*Impacts of Partial Cambial Dieback on Tree-ring Records from Ancient Conifers*', Thursday May 2 2019, Lamont-Doherty Earth Observatory, Palisades, New York, USA.

- **Chair** of the conference session ‘*Tropical Dendrochronology*’ at the 10th World Dendro Conference, 10-16 June 2018, Thimphu, Bhutan.
- **Chair** of the conference session ‘*Isotopes and Tree-rings*’ at the 10th World Dendro Conference, 10-16 June 2018, Thimphu, Bhutan.
- **Member of the PhD Committee** of the PhD Defense of Marceau Guerin, Dissertation entitled ‘*Role of tree structure for drought resilience: Insights from a semi-arid ecosystem*’, Thursday 31 May 2018, Columbia University, New York, USA.
- **Member of a Panel** for evaluating proposals submitted for consideration to the Arctic Science Section of the Division of Polar Programs of the National Science Foundation, virtual panel, 1-2 May 2017.
- **President of the PhD committee** of the PhD Dissertation of Tatiana Shestakova entitled ‘*Tree-ring networks at multiple geographical scales: patterns of coordinated ecological responses to global warming*’ defended on 11 November 2016 in Barcelona, Spain.
- **Member of the Organizing Committee** of the workshop for Past Global Changes (PAGES) entitled ‘*PAGES2k-PMIP3: Comparing data and model estimates of hydroclimate variability and change over the Common Era*’, Lamont-Doherty Earth Observatory, 1-3 June 2016, Palisades, US.
- **Member of the Scientific Committee** of the Third American Dendrochronology Conference, AmeriDendro 2016, 28 March to 1 April 2016, Mendoza, Argentina.
- **Chair** of the conference session ‘*Isotopes*’ on Tuesday March 29th at the Third American Dendrochronology Conference, AmeriDendro 2016, 28 March to 1 April 2016, Mendoza, Argentina.
- **Member of the PhD committee** for the Proposal defense of Marceau Guerin on December 3rd, 2015.
- **Member of the PhD committee** for the Master’s Meeting of Caroline Leland on March 30, 2015.
- **Host of the Earth Science Colloquium** at the Lamont-Doherty Earth Observatory on Friday, November 20, 2015 for the speaker Neil Pederson, Senior Ecologist at Harvard Forest, at Harvard University on the talk entitled ‘*Did the climate of the late 20th Century mask mechanisms for rapid, large-scale change in eastern US forests?*’
- **Member of the Screening Team** for interviewing finalists for the Mfa Teacher Fellowship that took place at the Spence School, 22 E 91st St, New York, NY on 31 May 2015, 18-19 August 2015 and 17 July 2016.
- **Panelist** in the session ‘*Climate Change and the Tropics: Implications and Adaptation*’ in the Inaugural Mid-Atlantic Region Climate Symposium. Rutgers University, New Brunswick, NJ, 21 November 2014.
- **Participant** in the Workshop ‘*Tundra ecosystem change: Scaling shrub expansion from site to biome*’, German Centre for Integrative Biodiversity Research (iDiv), Halle-Jena-Leipzig, Leipzig, 24 February - 7 March 2014.
- **Convenor/chair** of the Biogeosciences session entitled ‘*Forest dynamics under a changing climate and their long-term context*’ with K. Anderson-Teixeira, R. D’Arrigo, E. DeLucia, B. Duval, D. Frank and R. Wilson. 2012 AGU Fall Meeting, San Francisco, CA, 3 - 7 December 2012

PUBLICATIONS

L. Andreu-Hayles has published **three book chapters** and has **81 publications in peer-reviewed journals** including *Nature Geoscience*, *Nature Communications*, *Scientific Reports*, *Chemical Geology*, *Quaternary Science Reviews*, *Climate Dynamics*, *Global Change Biology*, *Radiocarbon*, *Nature Climate Change*, *Science Advances* among others. Her total number of **citations is 7977** with an **h-index of 35** and an **i10-index of 64** (according to Google Scholar). Note career breaks if accounting metrics since the date of the PhD award.

Book chapters:

- (3) **Andreu-Hayles, L.**, M. Lévesque, R. Guerrieri, R. T. W. Siegwolf, and C. Körner (2022), Limits and Strengths of Tree-Ring Stable Isotopes, in *Stable Isotopes in Tree Rings: Inferring Physiological, Climatic and Environmental Responses*, edited by R. T. W. Siegwolf, J. R. Brooks, J. Roden and M. Saurer, pp. 399-428, Springer International Publishing, Cham, doi:10.1007/978-3-030-92698-4_14. (open access)
- (2) Gagen, M., G. Battipaglia, V. Daux, J. Duffy, I. Dorado-Liñán, **L. Andreu-Hayles**, E. Martínez-Sancho, D. McCarroll, T. A. Shestakova, and K. Treydte (2022), Climate Signals in Stable Isotope Tree-Ring Records. In: Siegwolf, R.T.W., Brooks, J.R., Roden, J., Saurer, M. (eds) *Stable Isotopes in Tree Rings. Tree Physiology*, vol 8. Springer, Cham. https://doi.org/10.1007/978-3-030-92698-4_19 (open access)
- (1) **Andreu-Hayles, L.** & Leland, C. (2014) Dendrochronology, *Progress. Encyclopedia of Scientific Dating Methods* (ed. by W.J. Rink and J. Thompson), pp. 1-12. Springer Netherlands.

Papers in Peer-Reviewed journals

(*Postdoctoral scientist; +Students; ^co-first author, #co-corresponding)

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- (81) Leland, C., N. Davi, R. D'Arrigo, **L. Andreu-Hayles**, A. Pacheco-Solana, J. Edwards, K.J. Anchukaitis, T. Porter, M.F.J. Pisaric, M. Mant, T. Galloway, and R. Oelkers. Tree-ring Evidence of the Elusive 1959 Summer Cold Event in Northwestern North America 2024, *Arctic, Antarctic, and Alpine Research*. In PRESS.
- (80) Arosio T, Büntgen U, Nicolussi K, Moseley GE, Saurer M, Pichler T, Smith MP, Gutierrez E, **Andreu-Hayles L**, Hajdas I, Bebhuk T & Leuenberger M 2024, Tree-ring $\delta^{18}\text{O}$ and $\delta^2\text{H}$ stable isotopes reflect the global meteoric water line', *Frontiers in earth science*, 12 - 1440064.
- (79) Gaglioti, B.V., Mann, D.H., Wiles, G.C., **Andreu-Hayles, L.**, Hansen, W.D. & Wiesenberg, N. (2024) Forest-Wide Growth Rates Stabilize After Experiencing Accelerated Temperature Changes Near an Alaskan Glacier. *Geophysical Research Letters*, **51**, e2024GL109469.
- (78) Larose, J., Boucher, É., de Vernal, A., de Mendoza, I.H., Gennaretti, F., Lavergne, A., **Andreu-Hayles, L.** & Field, R.D. (2024) Rapid decrease of the Labrador Sea's influence on black spruce ecosystems with distance inland. *Communications Earth & Environment*, **5**, 108.
- +(77) Orrison, R., Vuille, M., Rodrigues, J.C., Strikis, N.M., Cruz, F., Rodriguez-Caton, M. & **Andreu-Hayles, L.** (2024) Pacific Interannual and Multidecadal Variability Recorded in $\delta^{18}\text{O}$ of South American Summer Monsoon Precipitation. *Journal of Geophysical Research: Atmospheres*, **129**, e2024JD040999.
- *(76) Rodriguez-Caton, M., Morales, M.S., Rao, M.P., Nixon, T., Vuille, M., Rivera, J.A., Oelkers, R., Christie, D.A., Varuolo-Clarke, A.M., Ferrero, M.E., Magney, T., Daux, V., Villalba, R. & **Andreu-Hayles, L.** (2024) A 300-year tree-ring $\delta^{18}\text{O}$ -based precipitation reconstruction for the South American Altiplano highlights decadal hydroclimate teleconnections. *Communications Earth & Environment*, **5**, 269.

- (75) Santos, G.M., Granato-Souza, D., Ancapichún, S., Oelkers, R., Haines, H.A., De Pol-Holz, R., **Andreu-Hayles, L.**, Hua, Q. & Barbosa, A.C. (2024) A novel post-1950 CE atmospheric 14C record for the tropics using absolutely dated tree rings in the equatorial Amazon. *Science of The Total Environment*, 918, 170686.
- (74) Treydte, K., Liu, L., Padrón, R.S., Martínez-Sancho, E., Babst, F., Frank, D.C., Gessler, A., Kahmen, A., Poulter, B., Seneviratne, S.I., Stegehuis, A.I., Wilson, R., **Andreu-Hayles, L.**, Bale, R., Bednarz, Z., Boettger, T., Berninger, F., Büntgen, U., Daux, V., Dorado-Liñán, I., Esper, J., Friedrich, M., Gagen, M., Grabner, M., Grudd, H., Gunnarsson, B.E., Gutiérrez, E., Hafner, P., Haupt, M., Hilasvuori, E., Heinrich, I., Helle, G., Jalkanen, R., Jungner, H., Kalela-Brundin, M., Kessler, A., Kirchhefer, A., Klesse, S., Krapiec, M., Levanič, T., Leuenberger, M., Linderholm, H.W., McCarroll, D., Masson-Delmotte, V., Pawelczyk, S., Pazdur, A., Planells, O., Pukiene, R., Rinne-Garmston, K.T., Robertson, I., Saracino, A., Saurer, M., Schleser, G.H., Seftigen, K., Siegwolf, R.T.W., Sonninen, E., Stievenard, M., Szychowska-Krapiec, E., Szymaszek, M., Todaro, L., Waterhouse, J.S., Weigl-Kuska, M., Weigt, R.B., Wimmer, R., Woodley, E.J., Vitas, A., Young, G. & Loader, N.J. (2023 online) Recent human-induced atmospheric drying across Europe unprecedented in the last 400 years. *Nature Geoscience*, 17, 58-65.

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- (73) **Andreu-Hayles, L.**, Tejedor, E., D'Arrigo, R., Locosselli, G.M., Rodríguez-Catón, M., Daux, V., Oelkers, R., Pacheco-Solana, A., Paredes-Villanueva, K. & Rodríguez-Morata, C. (2023) Dendrochronological advances in the tropical and subtropical Americas: Research priorities and future directions. *Dendrochronologia*, 81, 126124.
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- (15) Anchukaitis, K.J., D'Arrigo, R.D., **Andreu-Hayles, L.**, Frank, D., Verstege, A., Curtis, A., Buckley, B.M., Jacoby, G.C. & Cook, E.R. (2013) Tree-Ring-Reconstructed Summer Temperatures from Northwestern North America during the Last Nine Centuries. *Journal of Climate*, **26**, 10, 3001-3012.

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- (11) **Andreu-Hayles, L.**, Planells, O., Gutiérrez, E., Muntan, E., Helle, G., Anchukaitis, K.J. & Schleser, G.H. (2011) Long tree-ring chronologies reveal 20th century increases in water-use efficiency but no enhancement of tree growth at five Iberian pine forests. *Global Change Biology*, **17**, 2095-2112.
- (10) Dorado Liñán, I., Gutiérrez, E., Helle, G., Heinrich, I., Andreu-Hayles, L., Planells, O., Leuenberger, M., Bürger, C. & Schleser, G. (2011) Pooled versus separate measurements of tree-ring stable isotopes. *Science of The Total Environment*, **409**, 2244-2251.
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2008

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- (4) Treydte, K., Frank, D., Esper, J., **Andreu, L.**, Bednarz, Z., Berninger, F., Boettger, T., D'Alessandro, C.M., Etien, N., Filot, M., Grabner, M., Guillemin, M.T., Gutierrez, E., Haupt, M., Helle, G., Hiltavuori, E., Jungner, H., Kalela-Brundin, M., Krapiec, M., Leuenberger, M., Loader, N.J., Masson-Delmotte, V., Pazdur, A., Pawelczyk, S., Pierre, M., Planells, O., Pukiene, R., Reynolds-Henne, C.E., Rinne, K.T., Saracino, A., Saurer, M., Sonninen, E., Stievenard, M., Switsur, V.R., Szczepanek, M., Szychowska-Krapiec, E., Todaro, L., Waterhouse, J.S., Weigl, M. & Schleser, G.H. (2007) Signal strength and climate calibration of a European tree-ring isotope network. *Geophysical Research Letters*, **34**, L24302.

2006

- (3) Macias, M., **Andreu, L.**, Bosch, O., Camarero, J. & Gutiérrez, E. (2006) Increasing Aridity is Enhancing Silver Fir *Abies Alba* Mill.) Water Stress in its South-Western Distribution Limit. *Climatic Change*, **79**, 289-313.

2004

- (2) Molina, R., Muntan, E., **Andreu, L.**, Furdada, G., Oller, P., Gutierrez, E., Martinez, P. & Vilaplana, J.M. (2004) Using vegetation to characterize the avalanche of Canal del Roc Roig, Vall de Nuria, eastern Pyrenees, Spain. *Annals of Glaciology*, **38**, 159-165.
- (1) Muntan, E., **Andreu, L.**, Oller, P., Gutierrez, E. & Martinez, P. (2004) Dendrochronological study of the Canal del Roc Roig avalanche path: first results of the Aludex project in the Pyrenees. *Annals of Glaciology*, **38**, 173-179.

CURRENT PROJECTS

As a Principal Investigator Andreu-Hayles has been lead or co-PI in a total of **18 projects (totaling \$6,272,000 and 181,500€** at her Institution) with 7 active and 11 completed projects. The **7 active projects** (totaling \$1,075,135 and 181,500€) are funded by Spanish national funds (1) and in the United States by the National Science Foundation (3), the New Jersey SEA Grant Consortium (1) and the Climate Center of Columbia University (2).

- (7) National Science Foundation (NSF), AGS-2402659, 'Collaborative Research: Temperature Variability and Extremes at Multiple Temporal Scales in North Asia from Millennial-length Wood Anatomical Records', co-PI: **L. Andreu-Hayles**; Award at L.A-H Institution: \$76,068; Duration: 09/01/2025 - 08/31/2027.

- (6) National Science Foundation (NSF), AGS-2303524, ‘*Collaborative Research: Intertropical Convergence Zone Variations from Stable Oxygen Isotope Tree-Ring Records in the Tropical Americas*’, Lead PI: **L. Andreu-Hayles**; Award at L.A-H Institution: \$562,254; Duration: 02/01/2024 - 01/31/2027.
- (5) MINISTERIO DE CIENCIA E INNOVACION ‘PROYECTOS DE GENERACIÓN DE CONOCIMIENTO 2021’ (Project PID2021-126411OB-I00), ‘*Long-term perspective to the current environmental crisis in the Iberian Mediterranean region from dendrochronological and historical Archives*’, acronym DENDROHIST; Lead PI: L. Andreu-Hayles; Award: 181,500€; Duration: 9/1/2022 – 8/31/2025.
- (4) National Science Foundation (NSF), NSF 21526, ‘*Collaborative Research: Tracking Divergent Warming and Tree Growth at Arctic Treeline*’, Office of Polar Programs (OPP); PI: D'Arrigo, co-PI: **L. Andreu-Hayles**; Award at L.A-H Institution: \$383,639; Duration: 03/01/22 - 2/28/25.
- (3) New Jersey SEA Grant Consortium, ‘*Tropical Cyclone Impacts and Climate Resilience of Maritime Forests of New Jersey*’; co-PI: **L. Andreu-Hayles**; Award at L.A-H Institution: \$33,174; Duration: 02/1/22 - 01/31/25. (*The lead Institution is William Paterson U - #16975; Lead PI: N. Davi; LA-H Institution has a subaward)
- (2) Climate Center of Columbia University, ‘*Salvaging multacentennial tropical tree-ring archives from Madre de Dios, Peru*’, PIs: Arturo Pacheco-Solana, **L. Andreu-Hayles**; Award: \$10,000; Duration: 1/1/23 to 12/31/25.
- (1) Climate Center of Columbia University, ‘*Stable isotopes of carbonized archaeobotanical remains: a new paleoclimate proxy?*’ PIs: Hung Nguyen, **L. Andreu-Hayles** and Brendan Buckley; Award: \$10,000; Duration: 1/1/22 to 12/31/23.

COMPLETED PROJECTS 2009-2022

Since 2009 Andreu Hayles was lead or co-PI in a total of 11 projects (totaling \$5,196,846 at her Institution) funded by the National Science Foundation (NSF) of United States of America (9), the BNP-Paribas foundation from France (1), the Center for Climate & Life of Columbia University in the United States of America (1), while during the postdoctoral period was awarded with the Marie Curie International Outgoing Fellowship funded by the European Commission and participated in projects funded by NSF (1) and the MacArthur Foundation (1).

Additionally, Andreu-Hayles was lead or co-PI in a total of 14 projects with budgets below \$12,000 funded by the Climate Center of Columbia University (11), the Comer Foundation (1), the Cross-Cutting Initiative (1) and the Earth Clinic (1) of the Earth Institute of Columbia University, which served as seed-funding for pioneering research in different fields facilitation papers and larger grants.

- (11) National Science Foundation (NSF), OISE-1743738, ‘*Climate Research Education in the Americas using Tree-Ring Speleothem Examples (PIRECREATE)*’, Office of International Science and Engineering (OISE); Lead PI: D'Arrigo, R., PI; Co-PIs: **L. Andreu-Hayles**, Smerdon, J., Williams, A.P. w/Gaglioti, B.; at L.A-H Institution: \$1,899,667; Duration: 9/1/17 - 8/31/24. (*The lead Institution is SUNY ALBANY with Lead PI Vuille M. and the LDEO has a subward (SUNYA 18-28-79761)
- (10) National Science Foundation (NSF), OPP-1737788 ‘*Collaborative Research: Climate, human and ecosystem interactions in the face of a rapidly changing North Asian biome*’, Office of Polar Programs (OPP); Lead PI: Davi, N., co-PI; **L. Andreu-Hayles**; Award at L.A-H Institution: \$489,475; Duration: 9/1/17 - 8/31/24.
- (9) National Science Foundation (NSF), AGS-1903687, ‘*Collaborative Research: Reconstructing atmospheric ¹⁴C across the Inter Tropical Convergence Zone using tropical tree rings from South America and Central Africa*’; Lead PI: **L. Andreu-Hayles**; Award at L.A-H Institution: \$181,857; Duration: 07/15/19 - 06/30/24.
- (8) National Science Foundation (NSF), AGS-1702789 ‘*Collaborative Research: Reconstructing South American monsoon sensitivity to internal and external forcing: reconciling models and tree-ring proxies in the Central Andes*’, Paleo Perspective of Climate Change (P2C2); Lead PI: **L. Andreu-Hayles**, Co-PI: D'Arrigo, R., w/ Passow, M.; Award at L.A-H Institution: \$544,853; Duration: 3/1/18 - 2/28/23.

- (7) National Science Foundation (NSF), PLR 1504134 ‘*Response of High-latitude Forests to a Warmer and CO₂-enriched Atmosphere: Tree Rings in a Process-based Model*’, Arctic Natural Sciences (ANS); Lead PI: **L. Andreu-Hayles**; co-PIs: D’Arrigo, R., Field, R.; Award: \$579,971; Duration: 6/15/15-12/31/20.
- (6) The BNP-Paribas foundation, BNPFND CU17 2360 ‘*THE Mystery of the Expanding TropicS: from Past to Future (THEMES)*’; Lead PI: **L. Andreu-Hayles**; Award at L.A-H Institution: \$161,372 (132,610€); Duration: 9/1/17-12/31/22. (*The overall total award is 658 € and the lead PIs are Valérie Daux and Ricardo Villalba).
- (5) The Center for Climate & Life of Columbia University (CCL), ‘*Tropical forests and climate in a warming world*’; Lead PI: **L. Andreu-Hayles**; Award: \$204,454; Duration: 01/01/2017-06/30/2021.
- (4) National Science Foundation (NSF), PLR-1603473 ‘*Collaborative Research: Determining the Vulnerability and Resilience of Boreal Forests and Shrubs across Northwestern North America*’, Arctic Natural Sciences (ANS) program; Lead PI: D’Arrigo, R; co-PI: **L. Andreu-Hayles**; Award at L.A-H Institution: \$372,000; Duration: 9/1/16 - 8/31/20.
- (3) National Science Foundation (NSF), AGS-1502150 ‘*Collaborative Research: Spatiotemporal Variability of Northwestern North American Temperatures in Response to Climatic Forcing*’, Paleo Perspective of Climate Change (P2C2); Lead PI: D’Arrigo R. w/ **L. Andreu-Hayles**. Award at L.A-H Institution: \$454,739; Duration: 5/1/15-4/30/19.
- (2) National Geographic Society, NGS CP4-151R-1 ‘*Ancient ghost forests reveal how Alaska’s glaciers and cedar trees responded to past warming events*’; Lead PI: Gaglioti B.; co-PI: **L. Andreu-Hayles**; Award: \$21,100; Duration: 4/1/18 - 4/15/19.
- (1) National Science Foundation (NSF), NSF-1210360 ‘*Pluvials, Droughts, Energetics and the Mongol Empire*’. Lead PI: A. E. Hessler; Co-PIs: **L. Andreu-Hayles**, N. Pederson, K. Anchukaitis, N. Di Cosmo. National Science Foundation (NSF) – Program: Dynamics of Coupled Natural and Human Systems (CNH); Award at L.A-H Institution (WVC 12-285-CU): \$287,358; Duration: 9/1/12-2/28/17. (*Total award: \$1,394,398).

Postdoctoral research projects

- (4) European Commission (EC), Marie Curie International Outgoing Fellowship for Career Development (FP7-PEOPLE-2009-IOF), Proposal N° 253277 ‘*Temporal instability of tree-ring/climate relationship: tree responses to climatic change and implications for paleoclimate research*’; Acronym: TREE-RINGS & CLIMATE; Scientific Panel: Environment and geosciences; Fellow: **L. Andreu-Hayles**; Duration: 06/2011-05/2014.
- (3) National Science Foundation (NSF), ARC-0902051 ‘*Shifting Seasonality of Northern Forest Response to Arctic Environmental Change*’; PIs: R. D’Arrigo and K.J. Anchukaitis. Postdoctoral researcher: **L. Andreu-Hayles**; Duration: 4/2009-3/2012.
- (2) MacArthur Foundation, ‘*Impacts of climate change on biodiversity in the Tropical Andes: Climate-related vulnerability and risk assessments and improved decision making processes for conservation and land use planning in two Andean biodiversity hotspots*’, PIs Climate Component: D. Ruiz Carrascal, **L. Andreu-Hayles**, I. del Valle and R. Martínez; Duration: 1/2011 – 12/2013.
- (1) ‘*Dating the World Trade Center Ship*’. PIs: B.M. Buckley, K.J. Anchukaitis, N. Pederson, E.R. Cook and R.D. D’Arrigo. Postdoctoral research fellow: **L. Andreu-Hayles** and Dario Martin-Benito. AKRF, Inc., The Lower Manhattan Development Corporation, and The Port Authority of NY & NJ; Duration: 8/2010-7/2011.

Small budget grants (< \$12,000)

- (14) Climate Center of Columbia University, '*Tropical cyclone impacts and climate response of the centuries-old maritime forests of NY & NJ*', PIs: **L. Andreu-Hayles** & Nicole Davi; Award: \$10,998; Duration: 7/1/20 - 6/30/23.
- (13) Climate Center of Columbia University, '*A stable isotope dendroclimatology approach toward reconstructing paleoclimate dynamics in Central America*', PIs: **L. Andreu-Hayles** & Kevin Anchukaitis; Award: \$8,360; Duration: 1/1/21 - 12/31/22.
- (12) Climate Center of Columbia University, '*High-resolution Tropical Temperature records inferred from Tree-Ring Isotopes*', PIs: Rodríguez-Catón M. & **L. Andreu-Hayles**. Award: \$10,300; Duration: 07/01/2018-06/30/2020.
- (11) Climate Center of Columbia University, '*Ancient forests reveal how Alaska's cedar trees and glaciers responded to past warming events*'; Gaglioti, B & **L. Andreu-Hayles**; Award: \$9,878; Duration: 07/01/2017-12/31/2019.
- (10) Climate Center of Columbia University, '*Tracking the Aleutian Low using a spatial network of oxygen isotopes in tree rings from the North Pacific region*'; Lead PI: Gaglioti, B.; Co-PIs: **L. Andreu-Hayles**, R. Field, A. Csank, R. D'Arrigo; Award: \$9,460; Duration: 11/18/2016-12/31/2018.
- (9) Climate Center of Columbia University, '*Net primary productivity inferred from Tree-Ring Isotopes*'. Lead PI: M. Levesque. Co-PIs: **L. Andreu-Hayles**, P. Williams; Award: \$9995; Duration: 01/6/16-31/12/17.
- (8) Climate Center of Columbia University, '*Stable isotopes in tree rings as climatic and physiological records of the Broadleaf forests in the Northeastern US*'; Co-PIs: N. Pederson, **L. Andreu-Hayles**; Dario Martin-Benito; Kevin Griffin; Duration: 1/2014-6/2015.
- (7) Cross-Cutting Initiative (CCI) of the Earth Institute of Columbia University, '*Role of drought on the biodiversity of tropical rainforests in Vietnam: from seasonal to centennial scales*'. Co-PIs: B. Buckley, D. Martin-Benito, **L. Andreu-Hayles** and M. Uriarte; Duration: 2013-2015.
- (6) Earth Clinic (EC) of Earth Institute of Columbia University, '*Capacity building for indigenous communities of the Vietnam Highlands: an ecotourism/research trail from Bidoup to Klong Lanh stations, and the Tropical Highlands Field School at Bidoup Nui Ba National Park in Lam Dong Province*'. Co-PIs: B. Buckley, M. Uriarte, K. Griffin and **L. Andreu-Hayles**; Duration: 2013-2015.
- (5) Comer Foundation, '*Populus euphratica*' and '*Tamarix ramosissima*' $\delta^{13}\text{C}$ tree-ring chronologies from the Taklamakan Desert, Xinjiang, China'. Lead PI: **L. Andreu-Hayles**; Co-PIs: A. E. Putnam, E. H. Clark, W. S. Broecker and E. R. Cook; Award: \$10,000; Duration: 12/2012-6/2015.
- (4) Climate Center of Columbia University, '*Populus euphratica*' and '*Tamarix ramosissima*' $\delta^{13}\text{C}$ tree-ring chronologies from the Taklamakan Desert', Xinjiang, China. PI: **L. Andreu-Hayles**; Co-PIs: A. E. Putnam, E. H. Clark, W. S. Broecker and E. R. Cook; Duration: 12/2012-6/2015.
- (3) Climate Center of Columbia University, '*Dendrochronological potential of 'Polylepis' and 'Espeletia' in the high-altitude ecosystems of the Colombian Central Cordillera, South America*'. PI: **L. Andreu-Hayles**; CoPIs: D. Ruiz Carrascal and K.J. Anchukaitis, (CC-4-10715), 11/2014.
- (2) Climate Center of Columbia University, CC-4-10872 '*Climate and Paleoclimate at Chimborazo - the Point Farthest From the Center of the Earth*'; PIs: **L. Andreu-Hayles**, K. Anchukaitis, J. Cain and C. Wong. Climate Center proposal; Duration: 04/2012.
- (1) Climate Center of Columbia University, CC-4-10729 '*Tundra shrub willow ring-width chronologies along a latitudinal gradient in northeastern Alaska*'; PI: **L. Andreu-Hayles**; CoPIs: K.J. Anchukaitis and R. D'Arrigo; Duration: 04/2010.

PARTICIPATION IN PROJECTS AS PHD STUDENT 1998-2009

- (1) European Commission (EC), '*European climate of the last millennium*'. European project (EU). Acronym: MILLENNIUM. Proposal N°: GOCE 017008. PIs: E. Gutiérrez, G. Helle, M. Barriendos *et al.* Research associate/assistant: **L. Andreu-Hayles**. Tasks: Development of two tree-ring chronologies in the Iberian Peninsula for the last 600 and 800 years, respectively, using dendrochronological, densitometric and stable isotope techniques. Data analysis. Scientific communication in meetings and conferences; Grant period: 6/2006-5/2009.
- (2) European Commission (EC), '*400 years of annual reconstructions of European climate variability using a high resolution ISotopic NETwork*'. European project (EU): Acronym: ISONET. Proposal N°: EVK2-2001-00237. Co-PIs: G.H. Schleser, G. Helle, E. Gutiérrez *et al.* Research assistant: **L. Andreu-Hayles**. Tasks: Collection, preparation, cross-dating and measuring of samples to build three tree-ring chronologies in the Iberian Peninsula for the last 400 years. Stable isotope analyses. Statistical building of the width and stable tree-ring chronologies. Data analysis. Scientific communication in meetings and conferences; Grant period: 2/2003-1/2006.
- (3) European Commission (EC), '*Sensitivity of tree-growth to climate change and growth modelling from past to future*'. European project (EU). Acronym: FORMAT. Contract N°: ENV4-CT97-0641. PI: E. Gutiérrez *et al.* Graduate fellow: **L. Andreu-Hayles**. Tasks: Collection, preparation, cross-dating and measuring of samples to build a network of tree ring-width chronologies in the Iberian Peninsula. Data analysis. Scientific communication in meetings and conferences; Grant period: 1998-2001.

PRESENTATIONS SINCE 2010

(Presenter underlined)

- (121) L. Andreu-Hayles (invited talk), Revealing past climate variability using tree rings and stable isotopes, WHOI Climate and Paleo seminar, 1 August 2024, Woods Hole Oceanographic Institution, Woods Hole, MA, USA.
- (120) L. Andreu-Hayles (poster), D. Reyes, D.A. Pucha, T. Nixon, M. Rao, GC23C-0276 - Tree growth and climate sensitivity in an old-growth Juglans forest in Ecuador, AGU Fall Meeting 2024, 9-13 December 2024, Washington D.C., USA.
- (119) N.K. Davi (talk), **L. Andreu-Hayles**, C. Leland, A. Pacheco-Solana, E.R. Cook, M.P. Rao, N. Pederson, T. Nixon, M. Urbaniak, PP33H-05 - A Multi-Proxy Approach to Identifying a Hurricane Signature in Northeastern Maritime Forests, AGU Fall Meeting 2024, 9-13 December 2024, Washington D.C., USA.
- (118) G. Ticse-Otarola (poster), E.J. Requena-Rojas, A. Muñoz, I. Schneider, D. Christie, C. Rodríguez-Morata, L. Andreu-Hayles, GC23C-0275 Past Streamflow Variability Of The Shullcas River In The Peruvian Andes Inferred From Tree-Rings Records, AGU Fall Meeting 2024, 9-13 December 2024, Washington D.C., USA.
- (117) R. Oelkers (poster), **L. Andreu-Hayles**, R. D'Arrigo, M. Rodriguez-Caton, D. Ruiz-Carrascal, A. Pacheco-Solana, E. Tejedor, C. Maldonado, A.F. Fuentes Claros, E. Ferrero, B31O-1467 - Contrasting tree growth trends and climate response among distinct forest types in the tropical Andean-Amazon ecotone in Bolivia, AGU Fall Meeting 2024, 9-13 December 2024, Washington D.C., USA.
- (116) M. Walker (poster), A.E. Hessler, C. Shobe, **L. Andreu-Hayles**, B. Nachin, B. Suran, L. Dey, O. Byambasuren, SH53A-2955 Reconstructing extreme ¹⁴C production events using tree rings: does tree physiology affect estimates of atmospheric ¹⁴C?, AGU Fall Meeting 2024, 9-13 December 2024, Washington D.C., USA.
- (115) L. Andreu-Hayles (invited talked), Stable isotopes in plants: reconstructing climate and human impacts on the environment, 28 May 2024, ICREA Spain

- (114) D. Pino (poster), J. Barriendos, M. Barriendos, C. Balasch, J. Tuset, and **L. Andreu-Hayles**, Drought and flood episodes during the 19th Century in Catalonia (NE Iberian Peninsula), EGU General Assembly 2024, Vienna, Austria, 14–19 Apr 2024
- (113) J. Barriendos (poster), M. Barriendos, S. Gil-Guirado, S. Gorostiza, J.P. Montávez Gómez, and **L. Andreu-Hayles**, Characterization and socioeconomic impacts of the late 19th Century drought episodes in Catalonia (NE Iberian Peninsula), EGU General Assembly 2024, Vienna, Austria, 14–19 Apr 2024
- (112) C. Rodriguez Morata (poster), E.J. Requena Rojas, G. Ticse Otalora, M. Morales, D. Crispín DeLaCruz, and **L. Andreu-Hayles**, Reconstructing the Sea-Surface Temperature at the Equatorial Pacific using tree-ring proxies from the Peruvian central Andes, EGU General Assembly 2024, Vienna, Austria, 14–19 Apr 2024
- (111) K. Paredes Villanueva (poster), A. Kagawa, H. Abe, M. Kojima, C. Zhang, S. Ohashi, A. Akita, K. Takahashi, M. Uriarte, and **L. Andreu-Hayles**, Novel provenance approaches for tracing Cedrela timber in Bolivia, EGU General Assembly 2024, Vienna, Austria, 14–19 Apr 2024.
- (110) M. Palat Rao (talk), A. Pacheco-Solana, J.E. Jensen, R. Li, K.L. Griffin, N. Pederson, L.M. McCormack, J. Verfaillie, X. Yang, D. Baldocchi, **L. Andreu-Hayles**, B. Oryan, J. Hise, M. Rodriguez-Catón, A. Turner, J. Eitel, T.M. Scanlon, Z. Pierrat, J. Penuelas, and T. Magney, Summer aridity decouples growth from carbon assimilation in temperate oaks, EGU General Assembly 2024, Vienna, Austria, 14–19 Apr 2024.
- (109) R. Oelkers (poster), **L. Andreu-Hayles**, G.M. Santos, R. D'Arrigo, A. Pacheco-Solana, E. Tejedor, M. Rodriguez-Catón, E. Ferrero, S. Zenteno-Ruiz and C. Maldonado, GC41I-1211 - High Andes Bolivian Tree-ring Record (14°S) Captures Radiocarbon Enrichment of tropical South American Records in the Southern Hemisphere Zone 1-2, at AGU Fall Meeting 2023, 11-15 December 2023, San Francisco, USA.
- (108) C. Rodriguez-Morata (poster), **L. Andreu-Hayles**, E.J. Requena-Rojas, D. B. Crispin, G. Ticse-Otarola and M. Morales, GC41I-1213 - Sea-Surface Temperature variability in the 1+2 ENSO region inferred by tree-ring stable oxygen isotopes from the Peruvian central Andes, at the AGU Fall Meeting 2023, 11-15 December 2023, San Francisco, USA.
- (107) M. Rodriguez-Catón (poster), **L. Andreu-Hayles**, M. Morales, M. Palat Rao, T. Nixon, J.A. Rivera, V. Daux, D. Christie, E. Ferrero, R. Oelkers, A.M. Varuolo-Clarke, M.F. Vuille and R. Villalba, GC41I-1212 - A new tree-ring $\delta^{18}\text{O}$ precipitation reconstruction for the South American Altiplano (1700-2013 CE) highlights decadal hydroclimate teleconnections, presented at the AGU Fall Meeting 2023, 11-15 December 2023, San Francisco, USA.
- (106) K. Paredes Villanueva (poster), A. Kagawa, H. Abe, M. Kojima, C. Zhang, S. Ohashi, M. Uriarte and **L. Andreu-Hayles**, GC41I-1217 - Novel provenance approaches for tracing Cedrela timber in Bolivia, at the AGU Fall Meeting 2023, 11-15 December 2023, San Francisco, USA.
- (105) M. Palat Rao (poster), A. Pacheco-Solana, J. Jensen, R. Li, K.L. Griffin, N. Pederson, M.L. McCormack, J.G. Verfaillie, X. Yang, D.D. Baldocchi, L. Andreu-Hayles, B. Oryan, J. Hise, T. Nixon, M. Rodriguez-Catón, A.J. Turner, J. Eitel, A. Hosseini, Z. Pierrat, J. Penuelas and T. Magney, B34C-07 - Summer aridity decouples growth from carbon assimilation in temperate oaks, at the AGU Fall Meeting 2023, 11-15 December 2023, San Francisco, USA.
- (104) J.A. Edwards (talk), K.J. Anchukaitis, S.A. McAfee, A.Z. Csank, **L. Andreu-Hayles**, R. D'Arrigo and G. von Arx, PP32B-04 - Reconstructing Past Arctic Climate Variability through High-Resolution Tree-Ring Wood Anatomical Chronologies from Northern Alaska, at the AGU Fall Meeting 2023, 11-15 December 2023, San Francisco, USA.
- (103) G. Santos (poster), D. Granato Souza, S. Ancapichun, R. Oelkers, H. A. Haines, **L. Andreu-Hayles**, Q. Hua, A. C. Maioli Compos Barbosa, PP23C-1393 - Complete Post-1950AD Atmospheric ^{14}C Excursions for the Tropics Using Absolutely Dated Tree Rings from Eastern Equatorial Amazon, at the AGU Fall Meeting 2023, 11-15 December 2023, San Francisco, USA.

- (102) **L. Andreu-Hayles** (*invited talk*), Stable isotopes in tree rings, International Workshop organised by the ERC-Stg RAINDROPS", 16 June 2023, Universitat Pompeu Fabra, Barcelona Spain.
- (101) **Rao, M.** (poster) P., Pacheco-Solana, A., Griñn, K., Jensen, J. E., Pederson, N., Oryan, B., Nixon, T., Rodriguez Caton, M. R., **Andreu Hayles, L.**, Hise, J., Peñuelas, J., and Magney, T.: Temporal decoupling between carbon assimilation and tree growth in temperate oaks, EGU General Assembly 2023, Vienna, Austria, 24–28 Apr 2023, EGU23-8562, <https://doi.org/10.5194/egusphere-egu23-8562>, 2023.
- (100) **R. Oelkers** (*talk*), **L. Andreu-Hayles**, Milagros Rodríguez-Catón, Eugenia Ferrero, Arturo Pacheco-Solana, Guaciara M Santos, Ernesto Tejedor Vargas, Rosanne D'Arrigo, Carla Maldonado and Troy Nixon, GC25B-06 - Climate Impacts on the Radial Growth of Tree Species in the Bolivian Amazon, presented at AGU Fall Meeting 2022, Chicago, 12-16 December 2022.
- (99) **A. Pacheco-Solana** (*online poster*), R. Oelkers, M. Rodriguez Caton, G. M Santos, A.F. Fuentes Claros, E. Tejedor Vargas, E. Ferrero, T. Nixon, C. Maldonado, **L. Andreu-Hayles**, GC21A-02 - New insights in quantitative wood anatomy and radiocarbon dating as complementary methodologies to study tree species from the Central tropical Andes, presented at AGU Fall Meeting 2022, Chicago, 12-16 December 2022.
- (98) **C. Rodriguez-Morata** (*poster*), A. Kruczkiewicz, H.J. Vergara, **L. Andreu-Hayles**, GC22F-0662 - Multidisciplinary Methodological Approach for Flash Flood Risk Assessment in Rural Communities from the Peruvian Andes, presented at AGU Fall Meeting 2022, Chicago, 12-16 December 2022.
- (97) **M. Palat Rao** (*poster*), N.K. Davi, T. Magney, **L. Andreu-Hayles**, B. Nachin, B. Suran, A. Marie Varuolo-Clarke, B. Cook, R. D'Arrigo, N. Pederson, L. Odrentsen, M. Rodríguez-Catón, C. Leland, J. Burentogtokh, W. Gardner and K.L. Griffin, B45G-1793 - Rapidly approaching a thermal tolerance tipping point in the Eurasian boreal forest at its southern margins, presented at AGU Fall Meeting 2022, Chicago, 12-16 December 2022.
- (96) **L. Andreu-Hayles** (*talk*), A. Lavergne, M. Levesque, R. Field, E. Boucher, R. D'Arrigo, F. Gennaretti, I. Hermoso and R. Oelker, Ecophysiological response of white spruces to climate inferred from tree-ring width and stable isotopes across the North American Boreal forests, Ameridendro 2022, June 27th to July 1st 2022, Montreal, Canada.
- (95) **N. Davi**, **L. Andreu-Hayles**, M. Rao, E. Cook, L. Haaf, T. Nixon, & J. Raphael, Evaluating Tropical Cyclone Impacts and Climate Response of a Maritime Forest (1737-2018), Montauk, N.Y. (*talk*), Ameridendro 2022, June 27th to July 1st 2022, Montreal, Canada.
- (94) **T. Nixon**, N. Davi, **L. Andreu-Hayles**, L. Haaf, J. Raphael & M. DaSilva, Assessing Vulnerability of American Holly (*Ilex opaca*) Trees in Coastal Maritime Forests of N.Y. and N.J. (*talk*), Ameridendro 2022, June 27th to July 1st 2022, Montreal, Canada.
- (93) **A. Pacheco-Solana**, **L. Andreu-Hayles**, R. Oelkers, R. D'Arrigo, T. Nixon, Advances in quantitative wood anatomy and radiocarbon dating to better assess climate sensitivity in the Andean Tropics (*talk*), Ameridendro 2022, June 27th to July 1st 2022, Montreal, Canada.
- (92) **G. Ticse-Oterola**, O.D. Vidala, **L. Andreu-Hayles**, H.R. Quispe-Melgara, M.M. Amoroso, G.M. Santos, Edilson J. Requena-Rojas, Age structure and climate sensitivity of a high Andean relict forest of *Polylepis rodolfo-vasquezii* in central Peru (*talk*), Ameridendro 2022, June 27th to July 1st 2022, Montreal, Canada.
- (91) **C. Rodríguez-Morata**, Pacheco-Solana A., Ticse-Otarola G.; Boza Espinoza T.E., Crispín-DelaCruz D., Santos G.M., Morales M.S., Requena-Rojas E.J., **Andreu-Hayles L.**, Revealing *Polylepis microphylla* as novel Andean specie suitable for dendrochronology and quantitative wood anatomy (*talk*), Ameridendro 2022, June 27th to July 1st 2022, Montreal, Canada.
- (90) **M. Rodríguez-Catón**, **L. Andreu-Hayles** et al., Climate and physiological signals in tree-ring stable isotopes of *Polylepis tarapacana* from the South American Altiplano (*talk*), Ameridendro 2022, June 27th to July 1st 2022, Montreal, Canada.

- (89) Leland, C., R. D'Arrigo, N. Davi, T. Porter, L. Piper, **L. Andreu-Hayles** and T. Nixon, Volcanic Cooling Events: Impacts on Climate and Indigenous Peoples in Northwestern North America (*talk*), Ameridendro 2022, June 27th to July 1st 2022, Montreal, Canada.
- (88) M.P. Rao, A. Pacheco-Solana, J. Jensen, B. Oryan, M. Rodríguez-Catón, T. Nixon, C. Leland, **L. Andreu-Hayles**, T. Magney, N. Pederson, W.J D'Andrea, N. Boelman, R. Commene, D.M. Peteet, P. Gentine, N.K Davi and K.L. Griffin, Asynchronous carbon assimilation and growth in oaks (*poster*), Ameridendro 2022, June 27th to July 1st 2022, Montreal, Canada.
- (87) Leland, C., D.Arrigo, R., Davi, N., Porter, T., **Andreu-Hayles, L.**, Oelkers, R., Wiles, G., Wilson, R., Anchukaitis, K., Rao, M.P., Gaglioti, B., Reid, E., Beaulieu, S., Nixon, T.2022, The Unidentified ~1809 Volcanic Event: Evidence from Tree Rings and Historical Data. PAGES AGADIR 2022 6th Open Science Meeting, 16-20 May, Virtual. (oral).
- (86) **L. Andreu-Hayles** (*invited talk*) presented the talk entitled 'Isótopos en dendrocronología' in the 'Seminario Internacional Biodiversidad y Cambio Global' that was hold on 6-7 June 2022 in the Universidad Nacional de Loja, Ecuador.
- (85) R. Oelkers (speaker), **L. Andreu-Hayles**, R. D'Arrigo, E. Tejedor-Vargas, M. Rodríguez-Catón, E. Ferrero, A. Pacheco-Solana, C. Rodríguez-Morata, T. Nixon, New insights for Tropical Dendrochronology in Northern Bolivia (*talk*), Abstract 12541 for the Frontiers in Dendrochronology Session, presented at 2022 AAG Annual Meeting (virtual), 25 Feb-1 March 2022.
- (84) A. Pacheco-Solana (speaker), **L. Andreu-Hayles**, R. Oelkers, E. Tejedor-Vargas, E. Ferrero, M. Rodríguez-Catón, C. Maldonado and G.M Santos, Elucidating tree-ring annual periodicity in tropical Bolivian Andes Prosopis alba through radiocarbon and wood anatomy analysis (*talk*), Abstract 12114 for the Frontiers in Dendrochronology Session, presented at 2022 AAG Annual Meeting (virtual) 25 Feb-1 March, 2022.
- (83) **L. Andreu-Hayles** (*invited talk*), 'Análisis de isótopos estables en los anillos de crecimiento' (online via zoom) in the 'Curso internacional de Anatomía y dendrocronología tropical: fundamentos y aplicaciones', Universidad Continental in Huancayo, Peru, 9 February 2022.
- (82) R. Oelkers, **L. Andreu-Hayles**, E. Tejedor-Vargas, A. Pacheco-Solana, C Rodríguez Morata, E. Ferrero, Precipitation Sensitivity of High-altitude Polylepis Pepei in Northern Bolivia (*poster*), Abstract GC55C-0446 presented at AGU Fall Meeting 2021, New Orleans, LA, 13-17 December 2021.
- (81) A. Pacheco-Solana, **L. Andreu-Hayles**, R. Oelkers, E. Tejedor-Vargas, E. Ferrero, M. Rodríguez-Catón, C. Maldonado and G.M Santos, Radiocarbon and wood anatomy as key novel tools to generate an annual tree-ring chronology from *Prosopis alba* in the tropical Bolivian Andes (*talk*), Abstract GC55C-0444 presented at AGU Fall Meeting 2021, New Orleans, LA, 13-17 December 2021.
- (80) M. Rodríguez Catón, **L. Andreu-Hayles**, M. Morales, D. Christie, M. Palat Rao, T. Nixon, R. Oelkers, A.M. Varuolo-Clarke, F. Vimeux, A. Srur, M.F Vuille, R. D'Arrigo, V. Daux and R. Villalba, Oxygen stable isotopes in tree rings reveal 300 years of precipitation variability in the South American Altiplano (*talk*, Abstract PP44A-06 presented at AGU Fall Meeting 2021, New Orleans, LA, 13-17 December 2021.
- (79) M. Rodríguez-Catón, **L. Andreu-Hayles**, M. Morales, V. Daux, D. Christie, R.E Coopman, C. Alvarez, M.P. Rao, D. Aliste, F. Flores and R. Villalba, Climate sensitivity for radial growth and tree-ring stable isotopes suggest a decoupling between carbon sink and carbon source processes as aridity increases in the semiarid Central Andes (*talk*), Abstract B52C-03 presented at AGU Fall Meeting 2021, New Orleans, LA, 13-17 December 2021.
- (78) T. Anderson, K.J. Anchukaitis, K. Morino, **L. Andreu-Hayles**, D. Pons, D. Griffin, E.J. Castellanos, M. Taylor, Multiproxy insights into past climate variability from a Central American tree-ring chronology network (*poster*), Abstract GC55C-0448 presented at AGU Fall Meeting 2021, New Orleans, LA, 13-17 December 2021.

- (77) E. Tejedor Vargas, N.J. Steiger, J.E. Smerdon, M. Morales, **L. Andreu-Hayles**, R. Villalba, E. Ferrero, M.F. Vuille, South American hydroclimatic response to large volcanic events over the last 600 years. A data-model intercomparison (*poster*), Abstract GC55C-0439 presented at AGU Fall Meeting 2021, New Orleans, LA, 13-17 December 2021.
- (76) T. Penchenat, V. Daux, I.A. Mundo, R. Villalba, A. Srur, **L. Andreu-Hayles**, Tree-ring isotopes from *Araucaria Araucana* provide new insights on climate variability at Northern Patagonia (*poster*), Abstract GC55C-0445 presented at AGU Fall Meeting 2021, New Orleans, LA, 13-17 December 2021.
- (75) M. P. Rao, A. Pacheco-Solana, J. Jensen, B. Oryan, M. Rodríguez-Catón, **L. Andreu-Hayles**, T. Magney, W.J. D'Andrea, N. Boelman, R. Commane, D.M. Peteet, S. Naeem, P. Gentine, N.K. Davi and K.L. Griffin, The phenology and environmental drivers of oak tree-growth and photosynthesis at the Lamont Sanctuary Forest in the northeastern US (*talk*), Abstract B31F-01 presented at AGU Fall Meeting 2021, New Orleans, LA, 13-17 December 2021.
- (74) **L. Andreu-Hayles** (*invited talk*), 'Tree-ring narratives of environmental change from the Arctic to the tropics' (online via zoom), *Earth2classs (E2C)*, 13 November, 2021.
- (73) **L. Andreu-Hayles** (*invited talk*) in the webinar Webinar: 'PALEOCLIMATOLOGÍA: ENTENDIENDO NUESTRO CLIMA A TRAVÉS DE LOS REGISTROS NATURALES', hosted by the PIRE-CREAT project, 13 May 2021., with Ernesto Tejedor and Rebecca Orrison.
- (72) A. Lavergne, **L. Andreu-Hayles**, S. Belmecheri, R. Guerrieri, H. Graven, 'Stable carbon isotopes as powerful tools for studying land-atmosphere flux exchanges and improving land surface models', EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-11232, <https://doi.org/10.5194/egusphere-egu21-11232>, 2021.
- (71) **L. Andreu-Hayles** (*speaker*) in the session 'Paleoclimatology: Understanding our climate through natural records' (webinar 2 - led by PIRE Co-PI Andreu Hayles, Postdoc Tejedor and PhD student Orrison) on June 10, 2020. This session was the second of a webinar series entitled '**The PIRE Climate Change Webinar Series**' that took place over 3 consecutive Wednesdays (June 3, 10 & 17, 2020).
- (70) **L. Andreu-Hayles** (*speaker*), B. Gaglioti, L.T. Berner, M. Levesque, K.J. Anchukaitis, S.J. Goetz and R. D'Arrigo, A narrow window of summer temperatures is associated with shrub growth in Arctic Alaska (*oral*), Abstract B11D-01 presented at AGU Fall Meeting 2019, San Francisco, CA, 9-13 December 2019.
- (69) M. Palat Rao, K.L. Griffin, N.K. Davi, **L. Andreu-Hayles**, B. Nachin, B. Suran, R. D'Arrigo, C. Leland, W. Gardner and W. Honeychurch, Photosynthetic heat tolerance, light response, and respiration rates across gradients in the northwestern Mongolian boreal-steppe (*poster*), Abstract B33F-2533 presented at AGU Fall Meeting 2019, San Francisco, CA, 9-13 December 2019.
- (68) B. Gaglioti, G.C. Wiles, N. Wiesenberg, **L. Andreu-Hayles**, Species-specific responses to climate change in a temperate rainforest (*poster*), Abstract B53H-2489 presented at AGU Fall Meeting 2019, San Francisco, CA, 9-13 December 2019.
- (67) M. Rodríguez-Catón, **Laia Andreu-Hayles**, M. Morales, D. Christie, C. Alvarez, C. Leland, M. Palat Rao, R. Oelkers, V. Daux and R. Villalba, Climate Signals in Oxygen Isotopic Tree-ring Chronologies of *Polylepis tarapacana* from the South American Altiplano (*poster*), Abstract GC43E-1452 presented at AGU Fall Meeting 2019, San Francisco, CA, 9-13 December 2019.
- (66) D.B. Crispin, M. Morales, **L. Andreu-Hayles**, J.I. Guillena, D. Christie, E.J. Requena-Rojas, Climate sensitivity in radial growth of the northernmost population of *Polylepis tarapacana* in the Peruvian Andes (*poster*), Abstract GC43E-1455 presented at AGU Fall Meeting 2019, San Francisco, CA, 9-13 December 2019.
- (65) J.A. Edwards, K.J. Anchukaitis, **L. Andreu-Hayles**, R. Oelkers, R. D'Arrigo and G. von Arx, The impact of the 1783 Laki eruption on North American climate using quantitative wood anatomy of Alaskan white

- spruce (*poster*), Abstract PP43D-1632 presented at AGU Fall Meeting 2019, San Francisco, CA, 9-13 December 2019.
- (64) N.K. Davi, R. Oelkers, R. D'Arrigo, M. Palat Rao, **L. Andreu-Hayles**, E.R. Cook, C. Leland and J. Geary, Improved Central Asian Temperature from Blue Intensity Reflectance of Tree Rings (*poster*), Abstract PP43D-1651 presented at AGU Fall Meeting 2019, San Francisco, CA, 9-13 December 2019.
- (63) M. Rodríguez-Catón, **L. Andreu-Hayles**, M. Morales, D. Christie, M. Rao, D. Daux, R. Villalba, '*Señal climática en los isótopos estables de los anillos de crecimiento de Polylepis tarapacana*' (*oral*), V Internacional Conference Ecology and Conservation of *Polylepis* forests, Quito, Ecuador, 16-20 September 2019.
- (62) G.M. Santos, **L. Andreu-Hayles**, R. Oelkers, R. De Pol-Holz, Q. Hua, M.E. Ferrero, E.J. Requena, D. Puchacofrep, S. Patiño-Rosario, A.F.N Brandes, P. Groenendijk, A.C.C. Barbosa, D. Granato-Souza, Role of the IntCal radiocarbon calibration curves in Quaternary science (*oral*), Stratigraphy and Chronology session, Monday, 29th July, 2019 - 20th Congress of the International Union for Quaternary Research (INQUA), Dublin, Ireland
- (61) **L. Andreu-Hayles** (*invited talk*), Towards reconstructing the South American Monsoon using tree rings: fieldwork in Peru and Bolivia (*oral*), 2nd Annual Meeting NSF PIRE-CREATE, Sao Pablo, Brazil, 18 July, 2019.
- (60) **L. Andreu-Hayles** (*invited talk*), R. Oelkers, R. D'Arrigo, M. Rodríguez, E. Tejedor, E. Ferrero '*Investigación dendrochronológica en Madidi*' (*oral*), Universidad Mayor de San Andrés, La Paz, Bolivia, hosted by the Herbario Nacional de Bolivia, 5 June 2019.
- (59) **L. Andreu-Hayles** (*invited talk*), R.D. Field, M. Levesque, R. Oelkers, E. Boucher and R. D'Arrigo, Climatic and Physiological Controls for White Spruce across the North American Boreal Forests inferred from tree-ring stable isotopes (*oral*), Abstract EGU2019-13914, presented at EGU General Assembly 2019, Vienna, Austria, 7-12 April 2019.
- (58) **L. Andreu-Hayles** (*invited talk*), R.D. Field, M. Levesque, R. Oelkers, E. Boucher and R. D'Arrigo, Climatic and Physiological Controls on a Stable Isotope Tree-ring Network of White Spruce across North American Boreal Forests (*oral*), Abstract B21G-09 presented at 2018 AGU Fall Meeting, Washington, D.C, 10-14 December 2018.
- (57) **L. Andreu-Hayles**, R. D'Arrigo, R. Oelkers, K.J. Anchukaitis, B. Gaglioti, R. Wilson, G.C. Wiles, D. Frank and N.K. Davi, Temperature Variability from Blue Intensity (BI) and Maximum Latewood Density (MXD) tree-ring chronologies from the North American Boreal Forests (*poster*), Abstract PP43C-1949 presented at 2018 AGU Fall Meeting, Washington, D.C, 10-14 December 2018.
- (56) C. Leland, **L. Andreu-Hayles**, E.R. Cook, K.J. Anchukaitis, A.E. Hessler, N. Pederson, K.L. Griffin, O. Byambasuren and B. Nachin, Carbon-Water Relations of Trees with Partial Cambial Dieback: Insights from Tree-ring Stable Isotopes (*oral*), Abstract B21G-17 presented at 2018 AGU Fall Meeting, Washington, D.C, 10-14 December 2018.
- (55) R. Oelkers, **L. Andreu-Hayles**, R. D'Arrigo, G.C. Wiles, N.K. Davi and K.J. Anchukaitis, A Blue Intensity Temperature Record from a Drought-Sensitive White Spruce Site in Central Alaska (*poster*), Abstract PP43C-1928 presented at 2018 AGU Fall Meeting, Washington, D.C, 10-14 December 2018.
- (54) Jensen, J.E., A. Maguire, R. Oelkers, **L. Andreu-Hayles**, N. Boelman, R. D'Arrigo, K. Griffin, C. Silva, J. Jennewein, A.J.H. Meddens, M. Russell, L. A. Vierling, and J.U.H. Eitel, Using aerial lidar to understand the role of climate and herbivory in shaping forest demographics at the Arctic forest-tundra ecotone (*oral*), Abstract B21E-01 presented at 2018 AGU Fall Meeting, Washington, D.C, 10-14 December 2018.
- (53) Berner, L.T., P. Jantz, R. Massey, P.J. Burns, G. Gauthier, B.C. Forbes, M. Macias-Fauria, B. Gaglioti, **L. Andreu-Hayles**, R. D'Arrigo and S.J. Goetz, Rapid warming leads to greening of the tundra biome

- (oral), Abstract B14C-02 presented at 2018 AGU Fall Meeting, Washington, D.C, 10-14 December 2018.
- (52) Wiles, G., R. Wilson, R. D'Arrigo, N. Wiesenberg, Race, Charlton, R. Oelkers, **L. Andreu-Hayles**, B. Gaglioti, N. Davi, K. Anchukaitis, Blue Intensity tree-ring proxies breathe new life into Northeast Pacific climate studies (oral), **GSA Annual Meeting**, Indianapolis, November 2018.
- (51) **Andreu-Hayles L.** (invited talk), Tree-ring narratives of environmental change from the Arctic to the tropics (oral), Geology and Geophysics Department, Woods Hole Oceanographic Institute (WHOI), Woods Hole, MA, USA, 2 August 2018.
- (50) **Andreu-Hayles, L.**, G.M. Santos, D.A. Herrera-Ramírez, T.E. Boza-Espinoza, A.F. Fuentes, J.I. del Valle, D. Ruiz-Carrascal, and P.L.M. Gonzalez, Tree-ring periodicity and radiocarbon bomb-pulse dating for tropical tree species (oral), 10th World Dendro Conference 2018, Thimphu, Buthan, 10-15 June 2018.
- (49) Levesque M., **L. Andreu-Hayles**, W. Kolby Smith, A.P. Williams, M.L. Hobi, B.W. Allred, and N. Pederson, Tree ring isotopes infer large-scale primary productivity and reveal water availability as a main driver of tree growth (oral), 10th World Dendro Conference 2018, Thimphu, Buthan, 10-15 June 2018.
- (48) Wilson R., **L. Andreu Hayles**, E.R. Cook, R. D'Arrigo, N. Davi, L. Habebauer, P.J. Krusic, B. Luckman, D. Morimoto, R. Oelkers, and C. Wood, Exorcising “divergence” using Blue Intensity in the southern Yukon (oral), 10th World Dendro Conference 2018, Thimphu, Buthan, 10-15 June 2018.
- (47) Leland C., **L. Andreu-Hayles**, E.R. Cook, K.J. Anchukaitis, A. Hessler, N. Pederson, K. Griffin, O. Byambasuren, and B. Nachin, Linking strip-bark morphology, ring widths, and stable isotopes in Siberian pine trees from Mongolia (poster), 10th World Dendro Conference 2018, Thimphu, Buthan, 10-15 June 2018.
- (46) Oelkers, R.C., **L. Andreu-Hayles**, R. D'Arrigo, R. Wilson, G. Wiles, N. Davi, and K. Anchukaitis, A blue intensity temperature record from a drought sensitive White Spruce site in central Alaska (poster), 10th World Dendro Conference 2018, Thimphu, Buthan, 10-15 June 2018.
- (45) Gaglioti B.V., D.H. Mann, A.P. Williams, G.C. Wiles, R. Oelkers, B.M. Jones, and **L. Andreu-Hayles** (poster), Sudden shifts in wintertime Aleutian Low variability revealed in a 550-year record of storm-damaged trees from Southeast Alaska (poster), 10th World Dendro Conference 2018, Thimphu, Buthan, 10-15 June 2018.
- (44) **Andreu-Hayles L.** (invited talk), Tree-ring narratives of environmental change from the Arctic to the tropics (oral), Institute of Earth Sciences Jaume Almera of the Spanish Scientific Research Council (ICTJA-CSIC), Barcelona, Spain, 5 July 2018.
- (43) **Andreu-Hayles, L.** (invited talk), Tree-ring narratives of environmental change from the Arctic to the tropics, co-sponsored by the Yale Anthropology Department (oral), Yale Institute for Biospheric Studies, the Yale School of Forestry & Environmental Studies, and the Yale Peabody Museum, David Friend Hall, Yale Peabody Museum, New Haven, CT, 19 April 2018.
- (42) **Andreu-Hayles L.** (invited talk), invited speaker in the talk entitled ‘*Dendrochronología y dendroecología en el Departamento de Ecología: 30 años de investigación del grupo DENDRIX*’, special seminar series for the 50-year Anniversary of the Department of Ecology, Department of Evolutionary Biology, *Departament de Biologia Evolutiva, Ecologia i Ciències Ambientals (BEECA)*, School of Biology University of Barcelona, Barcelona, Spain, 5 March 2018.
- (41) Levesque M., Pederson N., Williams P.A, Hobi M.L., Smith W.K., **Andreu-Hayles L.**, Tree-ring isotopes record biome-scale net primary productivity (invited talk), EGU2018-12050 presented at EGU General Assembly 2018, Vienna, Austria, 8-13 April 2018.
- (40) Leland, C., E.R. Cook, **L. Andreu-Hayles**, N. Pederson, A.E Hessler, K.J. Anchukaitis, O. Byambasuren, B. Nachin, N.K. Davi, R. D'Arrigo, K. L. Griffin, D.A. Bishop and M.P. Rao, Strip-bark and Whole-bark

- Siberian Pine Radial Growth Trends and Implications for Climate Reconstruction (*poster*), Abstract PP31A-1242 presented at 2017 AGU Fall Meeting, New Orleans, LA, 11-15 December 2017.
- (39) Pederson, N., M. Levesque, A.P. Williams, M.L. Hobi, W.K. Smith and **L. Andreu-Hayles**, Inferring biome-scale net primary productivity from tree-ring isotopes (*oral*), Abstract GC24G-03 presented at 2017 AGU Fall Meeting, New Orleans, LA, 11-15 December 2017.
- (38) Gaglioti, B., D.H. Mann, L.M. Farquharson, C.A. Baughman, B.M. Jones, V.E. Romanovsky, A.P. Williams, **L. Andreu-Hayles**, The thin brown line: The crucial role of peat in protecting permafrost in Arctic Alaska (*invited talk*), Abstract B43J-04 presented at 2017 AGU Fall Meeting, New Orleans, LA, 11-15 December 2017.
- (37) Gaglioti, B., D.H. Mann, **L. Andreu-Hayles**, G.C. Wiles, G. Streverler, P. Williams, R.D. Field, R. D'Arrigo, The last millennium of Aleutian low variability based on dendrochronology and water isotope proxies (*oral*), Abstract PP23E-02 presented at 2017 AGU Fall Meeting, New Orleans, LA, 11-15 December 2017.
- (36) Ruiz-Carrascal, D., S.K. Herzog, M.E. Gutiérrez Lagoueyte, D. Gonzalez-Duque, J. Cuevas-Moreno, J.I. del Valle, **L. Andreu-Hayles**, D.A. Herrera, R. Martínez, Tropical Andean ecosystems and the need to keep warming limits below a +1.5°C threshold (*poster*), Abstract GC53A-0871 presented at 2017 AGU Fall Meeting, New Orleans, LA, 11-15 December 2017.
- (35) Guerin, M.F., G. von Arx, D. Martin-Benito, K.L. Griffin, N. McDowell, W. Pockman, **L. Andreu-Hayles**, P. Gentine, Influence of Drought on the Hydraulic Efficiency and the Hydraulic Safety of the Xylem - Case of a Semi-arid Conifer (*poster*), Abstract B13H-1848 presented at 2017 AGU Fall Meeting, New Orleans, LA, 11-15 December 2017.
- (34) Jensen, J., A. Maguire, R. Oelkers, **L. Andreu-Hayles**, N. Boelman, R. D'Arrigo, K.L. Griffin, J.S. Jennewein, E. Hiers, A.J. Meddens, M. Russell, L.A. Vierling, J. Eitel, Towards lidar-based mapping of tree age at the Arctic forest tundra ecotone (*poster*), Abstract B21F-2021 presented at 2017 AGU Fall Meeting, New Orleans, LA, 11-15 December 2017.
- (33) **Andreu-Hayles, L.** (*speaker*), C. Ummenhofer; M. Barriendos, G.H. Schleser, G. Helle, M. Leuenberger; E. Gutiérrez; E.R. Cook, 400 years of summer hydroclimate from stable isotopes in Iberian trees (*oral*), PAGES 5th Open Science Meeting (OSM), Zaragoza, Spain, 9-13 May 2017.
- (32) Wilson, R., R. D'Arrigo, **L. Andreu-Hayles**, R. Oelkers, G. Wiles, K. Anchukaitis, N. Davi, Blue Intensity based experiments for reconstructing North Pacific temperatures along the Gulf of Alaska (*poster*), PAGES 5th Open Science Meeting (OSM), Zaragoza, Spain, 9-13 May 2017.
- (31) **Andreu-Hayles, L.** (*speaker*), C. Ummenhofer; M. Barriendos, G.H. Schleser, G. Helle, M. Leuenberger; E. Gutiérrez; E.R. Cook, 400 years of summer hydroclimate from stable isotopes in Iberian trees (*oral*), EGU2017-5001 presented at EGU General Assembly 2017, Vienna, Austria, 23-28 April 2017.
- (30) Boucher, E., **L. Andreu-Hayles**, R. Field, R. Oelkers, R. D'Arrigo, Modeling tree growth and stable isotope ratios of white spruce in western Alaska (*oral*), EGU2017-11161 presented at EGU General Assembly 2017, Vienna, Austria, 23-28 April 2017.
- (29) **Andreu-Hayles, L.**, B.V. Gaglioti, R. D'Arrigo, K.J. Anchukaitis, S. Goetz, B. Shrub sensitivity to recent warming across Arctic Alaska from dendrochronological and remote sensing records (*poster*), EGU2017-16398 presented at EGU General Assembly 2017, Vienna, Austria, 23-28 April 2017.
- (28) Wilson, R., R. D'Arrigo, **L. Andreu-Hayles**, R. Oelkers, G. Wiles, K. Anchukaitis, N. Davi, Blue Intensity based experiments for reconstructing North Pacific temperatures along the Gulf of Alaska (*poster*), EGU2017-7716 presented at EGU General Assembly 2017, Vienna, Austria, 23-28 April 2017.

- (27) **Andreu-Hayles, L.** (*invited talk*), Environmental signals in tree rings from the Arctic to the tropics' (*oral*), Seminar Series of Ecological and Forestry Applications Research Center (CREAF), 22 June 2016, Autonomous University of Barcelona (UAB), Bellaterra, Spain.
- (26) **Andreu-Hayles, L.** (*invited talk*), D'Arrigo, R.D., Oelkers, R., Anchukaitis, L., Wiles G., Wilson, R. Frank, D., Davi N., Blue Intensity (BI) and Maximum Latewood Density (MXD) tree-ring chronologies from Alaska and Yukon Territory, Canada (*oral*), Symposium 3: "Applications of Blue Intensity in Dendrochronology" at the Third American Dendrochronology Conference, AmeriDendro 2016, 28 March to 1 April 2016, Mendoza, Argentina.
- (25) **Andreu-Hayles, L.** Field R., Boucher E., Oelkers, R., D'Arrigo, R.D., Climate and physiological controls on stable isotopes in tree-ring chronologies across the North American treeline (*poster*), at the Third American Dendrochronology Conference, AmeriDendro 2016, 28 March to 1 April 2016, Mendoza, Argentina.
- (24) Levesque, M., **L. Andreu-Hayles**, Pederson N., High sensitivity of broadleaf trees to water availability in northeastern US (*poster*), at the Third American Dendrochronology Conference, AmeriDendro 2016, 28 March to 1 April 2016, Mendoza, Argentina.
- (23) **D'Arrigo R., L. Andreu-Hayles**, R. Oelkers, R. Wilson, G. Wiles, N. Davi, Preliminary Investigations of Blue Intensity in a Gulf of Alaska Tree-Ring Composite Record (*poster*), at the Third American Dendrochronology Conference, AmeriDendro 2016, 28 March to 1 April 2016, Mendoza, Argentina.
- (22) **Oelkers, R., D'Arrigo, R.D., L. Andreu-Hayles**, G. Wiles, R. Wilson, N.K. Davi, B. Buckley, K. Anchukaitis, The temperature signal of Blue Light Intensity (BI) tree-ring data sets from trees growing under distinct environmental conditions (*oral*), Symposium 3: "Applications of Blue Intensity in Dendrochronology" at the Third American Dendrochronology Conference, AmeriDendro 2016, 28 March to 1 April 2016, Mendoza, Argentina.
- (21) **Andreu-Hayles, L.**, C. Ummenhofer; M. Barriendos, G. Helle; G.H. Schleser, M. Leuenberger; E. Gutiérrez; E.R. Cook, Historic seasonality in Iberian trees: 400 yrs of winter North Atlantic Oscillation and summer hydroclimate (*poster*), Abstract PP23A-2280 presented at 2015 AGU Fall Meeting, San Francisco, CA, 14 - 18 December 2015.
- (20) **Andreu-Hayles, L.** (*invited talk*), Matching dendrochronological dates with the Southern Hemisphere ¹⁴C bomb curve to confirm annual tree rings in the tropics (*oral*), Symposium 19: Tree Rings, Stable Isotopes, and Wood Anatomy as Environmental and Climatic Indicators for the Tropics, at the Association of Tropical Biology and Conservation Conference (ATBC), 12-16 July, 2015, Honolulu, Hawaii.
- (19) **Andreu-Hayles, L.**, Anchukaitis, K., D'Arrigo R., Distinct temperature sensitivity among taiga and tundra shrubs in Alaska (*poster*), Abstract B43B-0231 presented at 2014 AGU Fall Meeting, San Francisco, CA, 15 - 19 December 2014.
- (18) **Andreu-Hayles, L.** (*invited talk and panelist*), 'Climate Change and the Tropics: Implications and Adaptation' (*oral*) in the Inaugural Mid-Atlantic Region Climate Symposium. Rutgers University, New Brunswick, NJ, 21 November 2014.
- (17) **Andreu-Hayles, L.** (*speaker*), C. Ummenhofer, M. Barriendos, G. Helle; G.H. Schleser, M. Leuenberger, E. Gutierrez; E.R. Cook, How to identify distinct regional and seasonal patterns of atmospheric variability using tree rings and stable isotopes from the Iberian Peninsula and links to historical archives (*oral*), WorldDendro 2014, 9th International Conference on Dendrochronology, Melbourne, Australia, 13-17 January 2014.
- (16) **Anchukaitis, K.J., R. D'Arrigo, L. Andreu-Hayles**, Statistics and modelling of divergence in northwestern North America (*invited talk*), WorldDendro 2014, 9th International Conference on Dendrochronology, Melbourne, Australia, 13-17 January 2014.

- (15) Herrera-Ramírez, D.A, J. del Valle, G. Santos, P. González and **L. Andreu-Hayles**, A *Prioria copaifera* tree-ring chronology from the Colombian Tropical Pacific (*poster*), WorldDendro 2014, 9th International Conference on Dendrochronology, Melbourne, Australia, 13-17 January 2014.
- (14) **Dorado-Liñan**, I, E. Zorita, J.F. González Rouco, **L. Andreu-Hayles**, E. Muntan Bordas, F. Campello, E. Gutiérrez, 800 years of reconstructed and simulated summer temperature variations in the south of the Iberian Peninsula (*oral*), WorldDendro 2014, 9th International Conference on Dendrochronology, Melbourne, Australia, 13-17 January 2014.
- (13) **Andreu-Hayles, L.** (*speaker*), C. Ummenhofer; M. Barriendos, G. Helle; G.H. Schleser, M. Leuenberger; E. Gutiérrez; E.R. Cook, Inferring atmospheric variability from the North Atlantic and the Mediterranean region using tree rings and historical archives from the Iberian Peninsula (*oral*), Abstract PP53D-01 presented at 2013 AGU Fall Meeting, San Francisco, CA, 9 - 13 December 2013.
- (12) **Andreu-Hayles, L.** (*speaker*), C. Ummenhofer, M. Barriendos, G. Helle, G.H. Schleser, E. Gutiérrez and E.R. Cook, Reconstructing past climate variability in the Iberian Peninsula using carbon and oxygen stable isotopes in tree rings (*oral*), Second American Dendrochronology Conference, Tucson, AZ, USA, 13-17 May 2013.
- (11) Herrera-Ramírez, D.A., J. del Valle and **L. Andreu-Hayles**, A *Prioria copaifera* tree-ring chronology from the Colombian Tropical Pacific (*poster*), Second American Dendrochronology Conference, Tucson, AZ, USA, 13-17 May 2013.
- (10) **Andreu-Hayles, L.** (*invited talk*), Tree-ring research at the IC3 (*oral*), Scientific Advisory Board (SAB) Meeting of Catalan Institute of Climatic Sciences (IC3), Món Sant Benet, Spain, 11-12 March 2013.
- (9) **Andreu-Hayles, L.**, G. Helle, G.H. Schleser, E. Gutiérrez, M. Barriendos, Reconstructing past climate variability in the Iberian Peninsula using carbon and oxygen stable isotopes in tree rings (*poster*), Abstract PP21B-2010 presented at 2012 AGU Fall Meeting, San Francisco, CA, 3 - 7 December 2012.
- (8) **Andreu-Hayles, L.** (*invited talk*), Forest response to environmental change –*tree-ring case studies*- (*oral*), Catalan Institute of Climatic Sciences (IC3), Barcelona, Spain, 6 August 2012.
- (7) **Wilmking, M.**, **L. Andreu-Hayles**, R. D'Arrigo and B. Ohse, A millennial length chronology faces the ecological complexity of today – Dendroecology and -chronology in a symbiotic relationship (*poster*), Trace 2012 conference, Tree Rings in Archaeology, Climatology and Ecology, Potsdam and Eberswalde, Germany, 9-12 May 2012.
- (6) **Andreu-Hayles, L.** (*invited talk*), Varying boreal forest response to Arctic environmental change at the Firth River, Alaska (*oral*), LDEO Postdoctoral Symposium, Palisades, NY, 5 April 2012.
- (5) **Andreu-Hayles, L.** (*invited talk*), R. D'Arrigo, K.J. Anchukaitis, P.S.A Beck, D. Frank and S. Goetz, Varying boreal forest response to Arctic environmental change at the Firth River, Alaska (*oral*), Association of American Geographers Annual Meeting, New York, NY, 24-28 February 2012.
- (4) **Anchukaitis, K.J.**, D. Frank, R.D. D'Arrigo, **L. Andreu-Hayles**, E.R. Cook, Reconstructed summer temperatures from northwestern North America during the last nine centuries (*poster*), Abstract PP42B-02 presented at 2011 AGU Fall Meeting, San Francisco, CA, 6 - 12 December 2011.
- (3) **Dorado-Liñan, I.**, E. Gutiérrez, I. Heinrich, **L. Andreu-Hayles**, F. Campello, G. Helle, Climate signals in width, density, delta-13C and delta-18O tree-ring series at two Iberian sites, TRACE 2011, Orléans, France, 11-14 May 2011.
- (2) **Andreu, L.**, R. D'Arrigo, K.J. Anchukaitis, S.J. Goetz, P.S. Beck and D. Frank, Varying Northern Forest Response to Arctic Environmental Change at the Firth River, Alaska (*poster*), Abstract GC43B-0986 presented at 2010 AGU Fall Meeting San Francisco, CA, 13 - 17 December 2010.

- (1) **Andreu, L.**, R. D'Arrigo, K. Anchukaitis, S. Goetz and P. Beck, Varying Northern Forest Response to Arctic Environmental Change (*poster*), SOA, State of the Arctic 2010, Miami, FL, 16-19 March 2010.

SCIENTIFIC PRESENTATIONS AS A STUDENT 2011-2007

- **Andreu, L.** (*invited participant*), O. Planells, E. Gutiérrez, G. Helle and G.H. Schleser, European Science Foundation (ESF) Workshop 2007 on Stable Isotopes in Dendroclimatology -Current Status and Future Prospects-, Potsdam, Germany, 12-16 February 2007.
- **Treydte, K.**, G.H. Schleser, J. Esper, **L. Andreu**, T. Bednarz, F. Berninger, T. Böttger, C.D. D'Allessandro, N. Etien, M. Filot, D. Frank, M. Grabner, E. Gutiérrez, M. Haupt, G. Helle, E. Hiltavuori, H. Jungner, M. Kalela-Brundin, M. Leuenberger, N. Loader, V. Masson-Delmotte, A. Pazdur, O. Planells, R. Pukienė, C. Reynolds, K. Rinne, M. Saurer, E. Sonninen, M. Stievenard, R. Switsur, M. Szczepanek, L. Todaro, J. Waterhouse, M. Weigl, R. Wimmer, Climate signals in the European isotope network ISONET, TRACE 2006, Tervuren, Belgium, 20-22 April 2006.
- **Macias, M.**, **L. Andreu**, O. Bosch, J.J. Camarero and E. Gutiérrez, Increasing aridity is enhancing silver fir (*Abies alba* Mill.) water stress in its south western distribution limit, EuroDendro-2005, Viterbo, Italy, 28 September to 2 October 2005.
- **Andreu, L.**, O. Planells, **E. Gutiérrez** and G.H. Schleser, Geographic and species-specific responses to summer drought and increasing CO₂ determined by tree-ring widths and $\delta^{13}\text{C}$ chronologies in five Iberian pine forests (*poster*), 90th ESA Annual Meeting 2005, Montreal, Canada, 7-12 August 2005.
- **Planells, O.**, **L. Andreu**, O. Bosch, E. Gutiérrez, M. Filot, M. Leuenberger, G. Helle and G.H. Schleser, The potential of stable isotopes to record aridity conditions in a low-sensitive ring widths forest from the eastern Pre-Pyrenees, TRACE 2005, Fribourg, Switzerland, 21-23 April 2005.
- **Treydte, K.**, G.H. Schleser, J. Esper, **L. Andreu**, T. Bednarz, F. Berninger, T. Böttger, C.D. D'Allessandro, N. Etien, M. Filot, D. Frank, M. Grabner, E. Gutierrez, M. Haupt, G. Helle, E. Hiltavuori, H. Jungner, M. Kalela-Brundin, M. Leuenberger, N. Loader, V. Masson-Delmotte, A. Pazdur, O. Planells, R. Pukienė, C. Reynolds, K. Rinne, M. Saurer, E. Sonninen, M. Stievenard, R. Switsur, M. Szczepanek, L. Todaro, J. Waterhouse, M. Weigl, R. Wimmer & G.H. Schleser, The European Isotope Network ISONET: First Results, TRACE 2005, Fribourg, Switzerland, 21-23 April 2005.
- **Andreu, L.**, **E. Gutiérrez**, O. Bosch, M. Ribas, E. Muntán, M. Macias, Spatiotemporal variability in tree pines species (*Pinus nigra*, *Pinus sylvestris* and *Pinus uncinata*) radial growth in the Iberian Peninsula (*poster*), EuroDendro-2003, Obergurgl, Austria, 10-14 September 2003.
- **Macias, M.**, **L. Andreu**, O. Bosch, J.J. Camarero, E. Gutiérrez, Tree-ring growth chronologies of silver fir (*Abies alba* Mill.): assessment of the Atlantic-Mediterranean gradient along the Pyrenees (*poster*), EuroDendro-2001, Godz Martuljek, Slovenia, 6-10 June 2001.

EDUCATIONAL ACTIVITIES (COURSES, WEBINARS and TALKS)

- Seminar entitled 'Dendrochronology' in the Master of Terrestrial Ecology and Biodiversity Management, Department de Biologia Animal, Vegetal i Ecologia, Universitat Autònoma de Barcelona (UAB), 08 November 2024, Barcelona, Spain.
- Tree-Ring Lab tour, August 11, 2022, *Climate School Communications and Events team*.
- **Organizer and instructor PIRE ACADEMY** for Undergraduate students. From April 1-3, Oswego. PI Vuille, Co-PI Andreu-Hayles, Senior Collaborator Joe Skrivanek (SUNY Office of Diversity Equity and Inclusion), Project Manager Natalia Ruiz-Menal, Postdocs Clara Rodríguez-Morata, Arturo Pacheco-Solana (both Lamont Doherty Earth Observatory - LDEO), Ernesto Tejedor (UAlbany) and graduate students Rose Oelkers (LDEO), Rebecca Orrison and Shelby Turner (both UAlbany) together with colleagues from SUNY

Oswego, organized a 3-day weekend at the Rice Creek Field Station of SUNY Oswego. The weekend was specifically designed to reach underrepresented groups in STEM from within the SUNY System and engage them in a variety of hands-on paleoclimate research activities. Each of the 17 students collected several tree core samples and brought them back to the lab for analysis. A total of 17 students from 7 different SUNY schools (Stony Brook, New Paltz, Oneonta, Oswego, Purchase, Albany & Buffalo) came to the SUNY Oswego campus to attend the event. The group included 11 female and 6 male students. 6 of the 9 instructors were female, serving as role models for the mostly female undergraduate attendees.

- Organizer and instructor of the **Workshop ‘Introduction a la ‘Dendrocronología en R’**, online May 25, 2021. Instructors: Andreu-Hayles, Tejedor, Pacheco-Solana, and Rodríguez-Morata, as well as graduate student Orrison and, instructors from Ecuador and Brazil. Participants: 25 Spanish speaking students from South America selected from a pool of 111 students.
- Tree-Ring Lab tour, November 22, 2021, *Senator Reichlin-Melnick*.
- Organizer of an **outreach activities at the Herbario Nacional of Bolivia** were conducted on 17-18 December 2020 where several students from the la Universidad Mayor de San Andrés were introduced to dendrochronological works in the tropics by Dr. Kathelyn Paredes, collaborator from the University of Santa Cruz in Bolivia, and Alejandra Romero.
- **Organizer and speaker** in the ‘PIRE Climate Change Webinar Series’ that took place over 3 consecutive Wednesdays (June 3, 10 & 17, 2020).
- **Organizer of an outreach event on 5 June 2019** for students and researchers from the Universidad Mayor de San Andrés in La Paz, Bolivia, hosted by the Herbario Nacional de Bolivia. The event included 3 presentations, a movie and an Open Panel. The presentations were led by Co-PI Andreu-Hayles, Co-PI E. Ferrero (IANIGLA-Argentina) and Postdoc Rodríguez. Afterwards Postdoc Tejedor presented the movie ‘Chasing Traces from the Past’ produced by PIRE postdoc Ernesto Tejedor, Luis Alberto Longares and Roberto Serrano and directed by Javier Calvo.
- **Organizer PIRE Academy**, Purchase Colleague, 5-7 April 2019.
- **Instructor of the THEMES Summer School 2019** ‘Density variations and isotopic composition of tree-rings: methods and applications in paleoclimatology’, Valdivia, Chile, 1-5 March 2019.
- Tree-Ring Lab tour, April 26, 2019, High school students from the Rockaway Waterfront Alliance in Queens, New York.
- Tree-Ring Lab tour, February 23, 2018, students from Queens College - requested by Professor Dax Soule, School of Earth and Environmental Sciences Queens College.
- Tree-Ring Lab tour, June 6, 2017, Cyndi Atherton and Camellia Pham from the Heising-Simons Foundation.
- Tree-Ring Lab tour, March 30th, Retired Men's Association of Greenwich.
- Designer and leader of a 2-day workshop on December 5-6, 2016, at the Lamont-Doherty Earth Observatory for 14 high school students from the Columbia Secondary School (7) and the Manhattan Center for Science and Mathematics (7). Both schools have populations that are traditionally under-represented in the STEM fields. The goal of the seminar was to provide an introduction to tree-ring research and its applications in earth and environmental sciences. Students were introduced to various methods (i.e. dendrochronology, geochemistry, and mass spectrometry) and disciplines (paleo-climate, physiology, and ecology).
- Tree-ring Lab visit and workshop, December 8, 2015, Hewitt School students – requested by Cassie Xu, Senior Program Manager, Office of Academic and Research Programs, Education and Outreach Coordinator, Lamont-Doherty Earth Observatory.
- Organization of Tropical Highlands Field School at Bidoup Nui Ba National Park from 11-17 January 2015: ‘Capacity building for indigenous communities of the Vietnam Highlands: an ecotourism/research trail from Bidoup to Klong Lanh stations, and the Tropical Highlands Field School at Bidoup Nui Ba National Park in Lam

Dong Province'. Co-PIs: B. Buckley, M. Uriarte, K. Griffin and L. Andreu-Hayles. Earth Clinic (EC), Earth Institute's 2013-2015.

- Tree-ring Lab visit, November 19, 2015, and MA science journalism students requested by Marguerite Y. Holloway, instructor Science Journalist program of Columbia University.
- Tree-Ring Lab tour, June 1, 2015, 10 students of Karin Limburg from Syracuse University (ESF) for her class called “Source to Sink”.
- Tree-Ring Lab tour, May 5, 2014, 5th-graders students (approx 10-yrs-old) from PS123 in Bushwick – requested by Jeremy Pickard, director Superhero Clubhouse (collective of artists and environmental advocates working at the intersection of science and theater).
- Tree-Ring Lab tour, May 2, 2014, 16 students (geology major) - requested by Professor Stephen Pekar School of Earth and Environmental Sciences Queens College and Adjunct Research Scientists at Lamont-Doherty Earth Observatory.
- Tree-Ring Lab and Lamont tour, November 25, 2013 - hosting three professors Universite Sains Malaysia/Monda - requested by Lucia Rodríguez, Earth Institute.
- Tree-Ring Lab tour, April 17, 2013 - potential Columbia College Undergraduate students – requested by Carol Mountain, Senior Administrative Manager, Earth and Environmental Sciences, Columbia University.
- Tree-Ring Lab tour, January 22, 2013 - visit of the Bolivian student Barbra Andersag Rojas - requested by James S. Cohen.
- Tree-Ring Lab tour and Luncheon, September 27, 2012 - Greenwich Retired Men's Association visit at Lamont-Doherty Earth Observatory (LDEO).
- Volunteering in the LDEO Open House 2010, 2011, 2012 and 2014.

Other student presentation:

- Hansen* K, Wiles G, Oelkers R, D’Arrigo R, **Andreu-Hayles, L**, Davi N, Strengthening the climate signal in tree-ring records using blue intensity methods: Gulf of Alaska. EXPLORATIONS: Research, Scholarship and Creative Expressions, William Paterson University, April 2016 (*Student Presentation)
- Geary J, Oelkers R, Björklund J, Davi N, D’Arrigo R, **Andreu-Hayles, L**, An International Comparison of Tree-Ring Density. EXPLORATIONS: Research, Scholarship and Creative Expressions, William Paterson University, April 2016 (*Student Presentation)
- Hansen* K, Wiles G, Oelkers R, D’Arrigo R, Andreu-Hayles, L, Davi N, Strengthening the climate signal in tree-ring records using blue intensity methods: Gulf of Alaska. 10th Annual Undergraduate Research Symposium in the Biological & Chemical Sciences at William Paterson University, April 2016 (*Student Presentation)
- Geary J, Oelkers R, Björklund J, Davi N, D’Arrigo R, Andreu-Hayles, L, An International Comparison of Tree-Ring Density. 10th Annual Undergraduate Research Symposium in the Biological & Chemical Sciences at William Paterson University, April 2016 (*Student Presentation)

SYNERGISTICS

- **Professional reviewer** of manuscripts for scientific journals such as *Global Change Biology*, *Climatic Change*, *Radiocarbon*, *Environmental Research Letters*, *Journal of Geophysical Research*, *Trees*, *Annals of Forests Sciences*, *Dendrochronology* and *Arctic*, as well as proposals for the National Science Foundation (NSF) and National Geographic.
- Member of the Shrub Hub network of researchers working in tundra ecosystems.
- *Training and Mentoring*: Javier Martín-Fernández, TRL-LDEO technician (October 2010 to present) and postdoctoral, PhD and undergraduates students (see ‘Mentoring’ section above).
- Black Rock Forest Consortium's 25th Anniversary Luncheon this Wednesday, May 7th, 2014, Metropolitan Club of New York.

MEDIA AND PUBLIC OUTREACH

2024

- Laia Andreu: “Podemos reconstruir el clima del pasado gracias a los anillos de los árboles”. La Vanguardia 25/05/2024

<https://www.lavanguardia.com/natural/20240525/9664589/laia-andreu-reconstruir-clima-pasado-gracias-anillos-arboles.html>

22/01/2024. Blog CREAM:

[L'aire a Europa és el més sec dels últims 400 anys](#)

21/05/2024. Blog CREAM:

[La ciència desxifra 300 anys de memòria climàtica amagada als anells de 5 arbres centenaris](#)

- Media coverage paper Rodríguez-Catón et al. 2024 *Communications Earth and Environment*:

21/05/2024. Catalunya Ràdio: ‘Desxifren el clima dels últims 300 anys als Andes analitzant els anells d'uns arbres’.

<https://www.cema.cat/324/desxifren-el-clima-dels-ultims-300-anys-als-andes-analitzant-els-anells-duns-arbres/noticia/3293852/>

21/05/2024. [Eldiario.es](#): ‘Los cinco arbolitos centenarios de los Andes que funcionan como un radar climático planetario’

https://www.eldiario.es/sociedad/cinco-arbolitos-centenarios-andes-funcionan-radar-climatico-planetario_1_11383087.html

21/05/2024. Diari ARA: ‘Els anells dels arbres centenaris guarden 300 anys de pulges i sequeres’.

https://www.ara.cat/societat/medi-ambient/recerca-participat-creaf-desxifra-300-anys-memoria-climatica_1_5035671.html

21/05/2024. El Independiente: ‘Los cinco árboles centenarios que han permitido descifrar 300 años de datos climáticos’.

<https://www.elindependiente.com/futuro/2024/05/21/los-cinco-arboles-centenarios-que-han-permitido-descifrar-300-anos-de-datos-climaticos/>

21/05/2024. Agencia SINC: ‘Revelados 300 años de historia climática oculta en los anillos de cinco árboles centenarios’.

<https://www.agenciasinc.es/Noticias/Revelados-300-anos-de-historia-climatica-oculta-en-los-anillos-de-cinco-arboles-centenarios>

22/05/2024. Diari de Barcelona: ‘Una recerca desxifra 300 anys de memòria climàtica amagada als anells d'arbres centenaris’.

<https://www.diaridebarcelona.cat/w/recerca-participat-creaf-desxifra-300-anys-memoria-climatica-amagada-anells-arbres-centenaris?redirect=%2F>

21/05/2024. Cadena SER Catalunya: 'Una recerca en què ha participat el CREAF desxifra 300 anys de memòria climàtica amagada als anells d'arbres centenaris'.

<https://cadenaser.com/cataluna/2024/05/21/una-recerca-en-que-ha-participat-el-creaf-desxifra-300-anys-de-memoria-climatica-amagada-als-anells-darbres-centenaris-sercat/>

- Media coverage paper Treydte et al. 2024 Nature Geoscience:

23/01/2024. Radio Aragón: 'El aire en Europa es el más seco de los últimos 400 años'

[El aire en Europa es el más seco de los últimos 400 años | Podcasts | Aragón Radio \(CARTV\)](#)

<https://www.cartv.es/aragonradio/podcast/emision/agora-23-01-2024>

27/01/2024. TV3: [Telenotícies - L'aire de l'atmosfera, el més sec de la història des que se'n tenen dades - 3Cat \(ccma.cat\)](#)

<https://www.3cat.cat/3cat/l'aire-de-latmosfera-el-mes-sec-de-la-historia-des-que-sen-tenen-dades/video/6262729/#onboarding=true>

22/01/2024. Nació Digital: 'L'aire a Europa és el més sec dels darrers 400 anys'.

https://nacioidigital.cat/impacte/terra/l'aire-a-europa-es-el-mes-sec-dels-darrers-400-anys_1821414_102.html

23/01/2024. Diari Lleida: 'Un estudi alerta que l'aire d'Europa és el més sec dels últims 400 anys'

https://www.lleida.com/noticia_canal/un-estudi-alerta-que-l'aire-deuropa-es-el-mes-sec-dels-ultims-400-anys

22/01/2024. Agencia SINC: 'El aire en Europa es el más seco de los últimos 400 años'

[El aire en Europa es el más seco de los últimos 400 años \(agenciasinc.es\)](#)

<https://www.agenciasinc.es/Noticias/El-aire-en-Europa-es-el-mas-seco-de-los-ultimos-400-anos>

2023

- AGU TV, December 2023, 'Climate Change Collaborations Across the Americas PIRE CREATE PROJECT'

<https://www.youtube.com/watch?v=5WJInnKPvEQ>

- Interview 'Tree rings contain secrets from the forest' by Marlene Cimons, published March 20 in 'Popular Science' in Nexus Media:

<https://www.popsoci.com/tree-rings-forest-climate>

- Interview for the Center for Climate and Life at Columbia University on May 2nd entitled 'Laia Andreu-Hayles: Exploring Tropical Forests in a Warming World':

<http://climateandlife.columbia.edu/2018/05/02/laia-andreu-hayles-exploring-tropical-forests-in-a-warming-world/>

- Insight piece by Laia Andreu-Hayles published on 23 January 2012 in the "Environmental Research Web" entitled "Tree-ring maximum density offers promise as Alaskan climate record" (<http://environmentalresearchweb.org/cws/article/news/48384>) in relation to the Andreu-Hayles *et al.* 2011 paper published in a special issue on "Focus on Dynamics of Arctic and Sub-Arctic Vegetation" in the Environmental Research Letters journal. Besides:

(1) This paper was cited for top downloads, 600 downloads in less than 3 months.

(2) One perspective piece by P. Williams, C. Xu, and N. McDowell: "Who's the new sheriff in town regulating boreal forest growth?" 2011. *Environmental Research Letters* 6(4): 041004: doi:10.1088/1748-9326/6/4/041004

(3) The article "Trees on Tundra's Border Are Growing Faster in a Hotter Climate" by Kim Martineau was published in Lamont web page on 10 November 2011: <http://www.ldeo.columbia.edu/news-events/trees-tundrasborder-are-growing-faster-hotter-climate>.

(4) Several media reported this study: New York Times article "In Warming North, Some Trees Thrive as Others Ail" by Andy Revkin published on 11 November 2011: <http://dotearth.blogs.nytimes.com/2011/11/11/in-warming-north-some-trees-thrive-as-others-ail/>; UPI.com article "Forest advance with warming climate" published on 10 November 2011: http://www.upi.com/Science_News/2011/11/10/Forests-advance-with-warming-climate/UPI-27171320961086/; EarthSky article "White spruce in northern Alaska growing faster in hotter climate" published on 12 November 2011: <http://earthsky.org/earth/white-spruce-in-northern-alaska-growing-faster-in-hotter-climate>; AlaskaDispatch article "Spruce growth accelerates on Alaska's treeline as temperatures rise" by Doug O'Harra published on 20 November 2011: <http://www.alaskadispatch.com/article/spruce-growth-accelerates-alaskas-treeline-temperatures-rise>; Climate Wire article "White spruce found growing in warmer weather in the tundra" by Tiffany Stecker published on 11 November 2011: <http://www.eenews.net/climatewire/2011/11/11/4>; AlaskaDispatch article "Arctic treeline advance not as fast as previously believed" by Carey Restino published on 18 March 2012: <http://www.alaskadispatch.com/article/arctic-treeline-advance-not-fast-previously-believed>

SKILLS and TRAINING

- Research experience and capability in the fields of ecology and dendrochronology: sampling, laboratory tasks (samples preparation, cross-dating, measuring, TSAP and CATRAS software), stable isotope analyses, data analysis including the use of specific software for dendrochronology.
- Experience with programming languages (Matlab and R) and writing of scientific manuscripts/grants.
- Excellent communication skills. Mother tongues: Spanish and Catalan. Excellent level of English, diploma: Certificate in Advanced English (CAE). University of Cambridge, June 2000.
- 1st International Winterschool on Wood Anatomy of Tree-Rings, Swiss Federal Institute for Forest, Snow and Landscape Research (WSL), Davos Switzerland, 01/2003.

INTERNSHIPS DURING THE PhD

- University of Natural Resources and Applied Life Sciences Vienna, BOKU, Vienna, Austria, 18 May to 11 June 2005. Research in dendrodensitometric analyses. Extraction of slides perpendicular to fiber angle using a double blade saw, performance of X-ray analyses and scanning the X-ray films. Laboratory of Prof. Michael Grabner, Institute of Wood Sciences and Technology.
- University of Bern, UNIBE, Bern, Switzerland, 18 November to 6 December 2004. Research in preparation of cellulose samples and reference materials to determinate stable oxygen and hydrogen isotope ratios. Some insight in the field of high temperature pyrolysis for online isotopic ratio mass spectrometry and evaluation of isotopic measurements. Laboratory of Prof. Markus Leuenberger, Division of Climate and Environmental Physics of the Physics Institute.
- Forschungszentrum Jülich, FZJ, Jülich, Germany, July to August 2004 and October to December 2003. Methodology of stable carbon and oxygen tree-ring isotope analysis. Selection of samples according to mass spectrometric analysis, manual dissection of tree rings by using microscopic techniques, chemical extraction of α -cellulose, as well as ultrasonic homogenization of wood and cellulose. Laboratory of Prof. Gerhard Schleser, Institute of Chemistry and Dynamics of the Geosphere V: Sedimentary Systems