

CURRICULUM VITAE

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION		CV date	06/02/2023
First name	Ernesto		
Family name	Tejedor Vargas		
Gender (*)	Male	Birth date	31/03/1988
Social Security, Passport, ID number	011008932144	PAK116818	72808566L
e-mail	Ernesto.tejedor@mncn.csic.es	https://ernestotejedor.wixsite.com/etejedor	
Open Researcher and Contributor ID (ORCID) (*)	0000-0001-6825-3870		

A.1. Current position

Position	Marie Skłodowska-Curie Fellow		
Initial date	01/09/2022		
Institution	National Museum of Natural Sciences-Spanish Research Council		
Department/Center	Geology	Geoenvironmental records of Global Change and Georisks	
Country	Spain	Teleph. number	691815588
Key words	Paleoclimate, hydroclimate, data assimilation, Mediterranean basin		

A.2. Previous positions (research activity interruptions, see call)

Period	Position/Institution/Country/Interruption cause
27/11/2022-7/01/2023 (1.5 months)	Paternity leave (newborn)
01/09/2022-01/09/2024	Marie Skłodowska-Curie Fellow/ National Museum of Natural Sciences-Spanish Research Council, Spain
01/06/2021-30/06/2022	Research Scientist/ University at Albany (SUNY), USA
23/10/2020-1/04/2021 (6 months)	Paternity leave due to the severe neuromuscular disease of my son
01/08/2019-01/01/2020	Visiting scientist/ Lamont-Doherty Earth Observatory of Columbia University, USA
01/07/2019-31/07/2019	Visiting scientist/ Universidade de São Paulo (USP). Instituto de Geociências (IGC)
01/07/2018-31/05/2021	Postdoctoral Research Associate/ University at Albany (SUNY), USA
01/07/2017-30/06/2018	Temporary Research Assistant/ Environmental Sciences Institute in the University of Zaragoza, Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD Geography and Regional planning	University of Zaragoza/ Spain	15/11/2012-17/05/2017
Research visit	Johannes Gutenberg-Universitat Mainz/ Germany	01/03/2015-07/07/2015
MsC: Geographic Information Science and Technology for Land Management: GIS and Remote Sensing	University of Zaragoza/ Spain	01/09/2011-01/11/2012
Erasmus program	Rijkuniversiteit of Groningen/ The Netherlands	01/08/2008-01/08/2009

Graduate: Geography and Regional planning	University of Zaragoza	09/2006- 06/2011
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Part B. CV SUMMARY

As a multidisciplinary climatologist, my research largely revolves around investigating the causes and consequences of past climate variability, in order to provide insight into modern environmental and societal challenges. Over the span of my career, I have been zealous in engaging in innovative exploration that produces ground-breaking results and originates new hypotheses and ideas. These endeavors have culminated in 24 JCR articles, with 19 having been published in the postdoc period between 2018-2023, 83% of which are from top-tier Q1 including high-impact journals (such as Nature Communications and Proceedings of the National Academy of Sciences), and 8 articles of which I am the first author. In addition, 4 more articles are under review, with one being the first author. My h index according to Google Scholar is 13 and includes 600 citations. Notably, one of my research outputs scored in the top 1% of all research outputs ever measured by Altmetric, and two more scored within the top 5%. Additionally, I have contributed to 7 book chapters, 2 divulgation articles, and 1 scientific-technical report. My work has been disseminated extensively through conferences (25) and other avenues such as scientific documentaries (6), educational videos (5), journal articles for broader audiences, radio and podcast, and television interviews. In addition, I have served as editor of 2 Special Issues, reviewed multiple articles, and evaluated international projects. Finally, I led or participated in 35 tree-ring and 3 cave sediment expeditions. This work has all been conducted within the context of 5 International and 5 National projects, from competitive calls, POCTEFA, H2020, Spanish and US Science Agencies, that together add up to a total of ~8 million euros. In fact, by working on these projects at all stages of research (from doctoral student to postdoc and research scientist), I was able to gain the necessary experience, leadership, and independence to achieve a highly competitive Marie Curie project (160,000 euros). Additionally, thanks to my involvement in these projects, I was able to gain expertise and build a strong network of contacts in three fields: dendrochronology (at the European, North, and South American levels), other hydroclimate proxies like speleothems (South America), models and data assimilation methodologies (North America and Europe). My articles and expedition collaborations serve as a reflection of this. As a scientist I have dedicated my efforts to expanding knowledge in the field of dendrochronology, including the development of new methods for reconstructing past climates, a tool for assessing the environmental stress of the global forest cover, or the discovery of tropical species with the potential to develop climate reconstructions. Furthermore, by making data-model comparisons, I discovered that the hydroclimatic impact of large volcanic eruptions is much stronger and more persistent than previously thought, challenging the established hypothesis. Finally, by leveraging my expertise in high-resolution proxies and statistical methods, my overall goal is to create better ways (i.e. data assimilation products) to accurately measure past climates to make better predictions about future climate changes. Next, I am strongly committed to sharing our findings with society, as demonstrated by the two award-winning scientific documentaries I produced. I also oversaw the creation of three visualizations scientific open-access tools for engaging both scientist and policy makers. Last but not least, I am devoted to inspiring the new generation of scientists sharing my passion about science by teaching in summer schools, seminars, bachelor courses (280 hours), masters (100 hours). In fact, after being inspired by my research techniques and findings, various of my students have gone on to pursue careers in STEAM fields. Finally, I have supervised 4 bachelor students and I am currently co-supervising a PhD student.

Part C. RELEVANT MERITS

C.1. Publications

This selection of articles illustrates my scientific growth from Ph.D. to research scientist.

1. Serrano-Notivoli R, Lemus-Canovas M, Barrao S, Sarricolea P, Meseguer-Ruiz O and **Tejedor E.** 2022. Heat and cold waves in mainland Spain: Origins, characteristics, and trends. *Weather and Climate Extremes*, 37, 100471. Impact Factor: 7.761. Q1: Meteorology and Atmospheric Sciences. Rank #10/108.
2. **Tejedor E**, Steiger N, Smerdon J, Serrano-Notivoli R, Vuille M. 2021. Global temperature responses to large tropical volcanic eruptions in paleo data assimilation products and climate model simulations over the Last Millennium. *Paleoceanography and Paleoclimatology*. Impact Factor: 3.992. Q1: Geosciences, Multidisciplinary. Rank #36/245.

3. Serrano-Notivoli R and **Tejedor E**, 2021. From rain to data: a review of station-based gridded precipitation datasets creation. *Wiley Interdisciplinary Reviews: Water*, 8 (6), e1555. Impact Factor: 7.428 Q1: Water Resources. Rank #7/100.
4. Büntgen U, Allen K, Anchukaitis KJ et al. (31/38, coauthors listed in alphabetical order except the first and last authors). 2021. The influence of decision-making in tree ring-based climate reconstructions. *Nature Communications* 12, 3411 (2021). Impact Factor: 17.694. Q1: Multidisciplinary sciences. Rank #6/74.
5. **Tejedor E**, Steiger N, Smerdon J, Serrano-Notivoli R, Vuille M. 2021. Global hydroclimatic response to tropical volcanic eruptions over the Last Millennium. *Proceedings of the National Academy of Sciences*, March 23, 118 (12) e2019145118. Impact Factor: 12.779. Q1: Multidisciplinary Sciences. Rank #9/74.
6. **Tejedor E**, Serrano-Notivoli R, de Luis M, Saz MA, Hartl C, St George S, Büntgen U, Liebhold A, Vuille M, Esper J. 2020. A global perspective on the climate-driven growth synchrony of neighboring trees. *Global Ecology and Biogeography* 29 (7): 1114-1125 (2020). Impact Factor: 7.148. Q1: Physical Geography. Rank #3/60.
7. **Tejedor E**, de Luis M, Barriendos M, Cuadrat JM, Luterbacher J, and Saz, M^Á. 2019. Rogation ceremonies: a key to understanding past drought variability in northeastern Spain since 1650. *Climate of the Past*, 15, 1647–1664. Impact Factor: 3.536. Q1: Meteorology and atmospheric sciences. Rank #22/105.
8. Oliva M, Ruiz-Fernandez J, Barriendos M et al. (17/20, coauthors listed in alphabetical order except the first and second authors). 2018. The Little Ice Age in Iberian mountains. *Earth Science Reviews*, 177, 175-208. Impact Factor: 9.36. (Q1)
9. **Tejedor E**, Saz MA, Esper J, Cuadrat JM, and de Luis M. 2017. Summer drought reconstruction in Northeastern Spain inferred from a tree-ring latewood network since 1734. *Geophysical Research Letters*, 44, 8492– 8500. Impact Factor: 4.339. Q1: Geosciences, multidisciplinary. Rank #11/226.
10. **Tejedor E**, Saz MA, Cuadrat JM, Esper J, and de Luis M. 2017. Temperature variability in the Iberian Range since 1602 inferred from tree-ring records, *Climate of the Past*, 13, 93-105. Impact Factor: 3.174. Q1: Meteorology and Atmospheric sciences. Rank #18/102.

C.2. Congress (8/25)

1. **Tejedor E**, Steiger N, Smerdon JE, Serrano-Notivoli R, Vuille M. Hydroclimatic response to volcanic eruptions over the Last Millennium might be muted in the LME CESM. **Oral**. American Geophysical Union Fall Meeting, San Francisco., Dec. 9-13, 2019.
2. **Tejedor E**, Smerdon J, Steiger N, Vuille M. Testing global climatic responses to Last Millennium Volcanic Events using the new Paleo Hydrodynamics Data Assimilation product (PHYDA). **Oral**. *Volcanic Impacts on Climate and Society (PAGES)*, Cambridge, UK, Apr.-13-16, 2019.
3. **Tejedor E**, Morales MS, Christie D, Andreu-Hayles L, Ferrero E, Villalba R, D'Arrigo R, and Vuille M. South American Altiplano hydroclimate response to volcanic eruptions over the past 700 years; a first approach using a tree-ring reconstruction. **Poster**. *American Geophysical Union Fall Meeting*, Washington, D.C., Dec. 10-14, 2018.
4. **Tejedor E**. Las sequías en el ámbito mediterráneo. XVI Curso de botánica práctica “Cienfuegos” sobre la flora y vegetación del Moncayo. **Invited speaker**. 06.2017. Tarazona (Spain).
5. **Tejedor E**, de Luis M, Saz MA, Serrano-Notivoli R, Barriendos M, Esper J, Novak K, Martínez del Castillo E, Longares, LA, Cuadrat JM. New paleoclimatic database for the Iberian Peninsula since AD 1700 inferred from tree-ring records and documentary evidence: advances in temperature and drought variability reconstructions. *European General Assembly 2017*. **Invited speaker**. 04.2017. Viena (Austria).
6. **Tejedor E**, de Luis M, Cuadrat JM, Esper J, Saz MA. 410 years of temperature reconstruction for the Iberian Peninsula based on tree-ring records. **Oral**. *Tree ring in archaeology, climatology and ecology (TRACE 2016)*. 05.2016. Bialowieza (Poland).

7. **Tejedor E**, de Luis M, Saz MA, Serrano-Notivoli R, Barriendos M, Esper J, Novak K, Martínez del Castillo E, Longares, LA, Cuadrat JM. New paleoclimatic database for the Iberian Peninsula since AD 1700 inferred from tree-ring records and documentary evidence: advances in temperature and drought variability reconstructions. *American Geophysical Union 2016 Fall Meeting*. 12.2016. San Francisco (USA). **Poster**. Winner of a travel grant for best young-researcher proposal (1,000€).
8. **Tejedor E**, de Luis M, Cuadrat JM, Novak K, Serrano-Notivoli R, Martínez del Castillo E, Longares LA, Saz MA. Dendroclimatic potential of *P. sylvestris*, *P. uncinata*, *P. halepensis*, *P. Pinaster*, and *P. nigra* along the Iberian range. 9^o Congreso Internacional Asociación Española de Climatología. 10.2014. Almeria (Spain). **Poster**. Winner of the 'Best young researcher' award. 500€.

C.3. Research projects

1. [ITHACA](#). Mediterranean Hydroclimate Variability over the Common Era. Marie Skłodowska-Curie Action-EU-H2020(09/2022-09/2024), 160,932€. Role (PI).
2. ExtreeM-PID2021-124573OA-I00, Expanding the use of trees as sensors of extreme hydrogeomorphic events in the Pyrenees Mountains (12/2022-12/2025). Spanish Ministry of Science and Innovation, 135,928€. PI Jose Antonio Ballesteros Cánovas. Role (Researcher).
3. [PIRE-CREATE](#). Climate Research and Education in the Americas using Tree-ring and cave sediment Examples (01/2018-01/2023). NSF, 5,000,000\$. PI Mathias Vuille (SUNY Albany). Role (Postdoctoral Research Associate and Research Scientist).
4. P2C2-Reconstructing South American Monsoon Sensitivity to Internal and External Forcing: Reconciling Models and Tree-ring Proxies in the Central Andes (06/2018-06/2021). NSF, 139,231\$. PI Laia Andreu-Hayles (Columbia University). Role (Researcher).
5. [CLIM'PY](#). Caracterización de la evolución del clima y provisión de información para la adaptación en los Pirineos. POCTEFA 2014-2020, 1,005,336€. PI Jose Maria Cuadrat (University of Zaragoza). Role (Researcher).
6. OPCC2. Actividades de divulgación y gobernanza del Pirineo. POCTEFA 2014-2020, 1,173,919€. PI Jose Maria Cuadrat (University of Zaragoza). Role (Researcher).
7. FCT-16-11318 "El clima del pasado" (01/2017-12/2017). Spanish Foundation for Science and Technology, 20,000€. PI Luis Alberto Longares (University of Zaragoza). Role (Producer).
8. CLIMED. Variabilidad, tendencias y extremos del clima en la vertiente mediterránea de la Península Ibérica desde el siglo XVI: Análisis mediante información multiproxy e instrumental (01/2016-01/2019). Spanish Ministry for Economy and Competitiveness, 127,000€. PI Jose Maria Cuadrat (University of Zaragoza). Role (Researcher).
9. Caracterización del clima del Nordeste de España desde el siglo XVI. Análisis integrado mediante información multiproxy e instrumental (01/2011-01/2015). Spanish Ministry for Science and Innovation, 40,000€. PI Jose Maria Cuadrat (University of Zaragoza). Role (Researcher).

C.4. Contracts, technological or transfer merits

1. I oversaw the know-how transfer of the [visualization's tools](#) within the project PIRE-CREATE with the firm Albany Visualization and Informatics Labs, 2018-2021.
2. Clima y masas forestales del término municipal de Zaragoza en el contexto del cambio global. Funding: Zaragoza Town Hall, 4,500€. (01/01/2013-31/12/2013). PI Miguel Angel Saz (University of Zaragoza). Role (Researcher).
3. Estudio de morfología foliar, fitoclimático e índice de marchitez de *Quercus* en el ámbito mediterráneo. Aragon Centre for Science and Technology. (12/11/2012-28/02/2013). 4,781€. PI Luis Alberto Longares. Role (Researcher).