

CURRICULUM VITAE ABREVIADO (CVA)

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

Part A. PERSONAL INFORMATION

First name	Jaime		
Family name	Madrigal González		
Gender (*)	Male	Birth date (dd/mm/yyyy)	01/05/1977
Social Security, Passport, ID number	70239339F		
e-mail	Jaime.madrigal@uva.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		https://orcid.org/0000-0002-9522-5493	

(*) Mandatory

A.1. Current position

Position	Senior Postdoctoral Researcher		
Initial date	01/12/2021		
Institution	Universidad de Valladolid		
Department/Center	Ciencias Agroforestales	EiFAB, Soria	
Country	Spain	Teleph. number	
Key words	Botany, Plant Ecology, Community Ecology, Forest Ecology		

A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
2021	Postdoctoral researcher/University of Salamanca/Spain
2017-2020	Scientific Collaborator Senior/University of Geneva/Switzerland
2011-2017	Postdoctoral researcher/Universidad de Alcalá/Spain
2009-2010	Postdoctoral researcher/Instituto de Ecología y Biodiversidad/Chile

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD in Biology (Ecology)	Universidad de Salamanca	2008
Suficiencia Investigadora	Universidad de Salamanca	2005
Licensed in Biology	Universidad de Salamanca	2002

(Include all the necessary rows)

Part B. CV SUMMARY (max. 5000 characters, including spaces)

My current position, since December 1, 2021, is that of a senior researcher at the University of Valladolid after achieving, in a competitive call, a 5+5-year position to work at the GIR CAMBIUM (Duques de Soria campus, University of Valladolid). I have declined a contract to attract Talent from the Community of Madrid (mode 1, senior) in the 2020/2021 call in which I was selected in final resolution. It should be noted that from November 2017 to December 31, 2020, I have worked as Senior Scientist in the group "Impacts and Risks of Climate Change in the Anthropocene" (C-CIA), of the Institute of Environmental Sciences (ISE) from the University of Geneva (Switzerland). From January 11, 2021 to November 30, 2021, I obtained a 1-year contract in a competitive call of the own program of postdoctoral contracts of the University of

Salamanca. I have previously worked as a postdoctoral researcher at the University of Alcalá (4 years and 11 months in projects, and 1 year and 6 months in a competitive call of the own program of postdoctoral contracts) and at the Institute of Ecology and Biodiversity of Chile (international competitive call, 2 years).

I have 64 publications to date, of which 50 (40% as first author and 12% as senior author) are articles in SCI journals indexed in the "Ecology", "Forestry" and "Multidisciplinary Sciences" categories of the JCR (Journal Citation Reports). Two papers in Nature Communications as first author, one paper in Communications Biology as first author, one paper in Nature Ecology and Evolution as senior (last) author, and two papers in Proceedings of the National Academy of Sciences as co-author. As first author, it is also worth noting publications in the journals Ecology, Ecosystems, Agricultural and Forest Meteorology or Science of the Total Environment. In addition to the cited scientific articles, I have also published 4 dissemination articles and 5 book chapters (national and international publishers such as Springer), 1 book and 2 technical reports focused on forest management. My 5yr h-index is 18 and 5yr H10-index is 25. I have attended a total of 23 national and international conferences/meetings, and I have been an invited speaker in one international meeting (2015 Poland). My major contributions to the ecological science have been (1) to unveil the role of some native species (herbivores and plants) as facilitators of exotic plants invasion, (2) to identify the coupled influences of two global climatic modes of variability (NAO and AMO) on forest productivity in the Iberian Peninsula over the last 100 years, (3) to participate (as senior co-author) in the development of a new hypothesis to explain rare species persistence in natural communities worldwide, and (4) to unveil the significance of species diversity on functioning in tree assemblages and its contingency upon climate conditions in world's natural forests.

As Principal Investigator (PI), I have obtained funding for three small research projects (Estudio de la composición y la diversidad de comunidades vegetales del cañón del río Cega, funded by Obra Social Caja Segovia, 2006; FLUCTREE, funded by the Swiss Academy of Sciences, 2020; Biodiversidad para mitigar el cambio climático, un caso de estudio en la localidad de Cuéllar, funded by Caixabank/Fundación Caja Segovia, 2021-2022). I have participated, as a member of the research team, in the AGORA national project funded by the MINECO (2017-2020). As member of the working team I have participated in national projects such as UNIPER (PID2020-114851GA-I00) and the LIFE Soria ForestAdapt project (2020-2024). As a postdoctoral researcher, I have participated in: (1) two international projects, FUNDIV-Europe and CARBOExtreme, both financed under the 7th framework program of the European Commission, and (2) VULPINECLIM, a national project, financed by MINECO within the framework of the RETOS call. Finally, I have participated as a research assistant in a regional project funded by the Provincial Council of Salamanca and JCyL in collaboration with the University of Salamanca, and as a collaborator in the REMEDINAL 3 research network (Community of Madrid).

My teaching experience is 803 hours distributed in undergraduate courses at the universities of Salamanca, Valladolid and Alcalá (Biology, Environmental Sciences, Agricultural Sciences, Forestry Sciences and Sanitary Biology), master's courses at the University of Geneva (Master in Environmental Sciences, MUSE) and Valladolid and PhD courses at the University of La Serena (PhD in Applied Biology and Ecology, Chile). Additionally, I have taught postgraduate courses at the universities of Alcalá and Salamanca. I have co-supervised 2 doctoral theses, 6 master's theses and 9 graduate projects, and I'm currently co-supervising 1 doctoral student. In 2017, I obtained the official accreditations of "Associate Professor", "Private University Professor" and "Assistant Professor" from the National Agency for Quality Assessment and Accreditation (ANECA).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

1. **Jaime Madrigal-González**, Joaquín Calatayud, Juan A. Ballesteros-Cánovas... ,Markus Stoffel (2023). Global patterns of tree density are contingent upon local determinants in the world's natural forests. *Communications Biology* 6: 47.

2. **Jaime Madrigal-González**, Aratzazu L. Luzuriaga, Adrián Escudero, Pablo Ferrandis, Joaquín Calatayud (2023). Warming reverses directionality in the richness-abundance relationship in Mediterranean annual plant communities. *Ecology* 104: e3870.
3. **Jaime Madrigal-González**, Joaquín Calatayud, Juan A. Ballesteros-Cánovas,..., Markus Stoffel (2020) Climate reverses directionality in the richness-abundance relationship across world's main forest biomes. *Nature Communications* 11: 5635.
4. Joaquín Calatayud, Enrique Andivia, Adrián Escudero,..., **Jaime Madrigal-González** (2020). Positive associations among rare species drive their persistence in ecological assemblages. *Nature Ecology and Evolution* 4: 40-45.
5. Juan A. Ballesteros-Cánovas, Daniel Trappman, **Jaime Madrigal-González**, Nikolas Eckert, Markus Stoffel (2018). Climate warming enhances the snow avalanche probability in western Indian Himalayas. *Proceedings of the National Academy of Science* 115: 3410-3415. (DOI: 10.1073/pnas.1716913115).
6. **Jaime Madrigal-González**, Juan A. Ballesteros-Cánovas, Asier Herrero,..., Miguel A. Zavala (2017). Forest productivity in southwestern Europe is controlled by coupled North Atlantic and Atlantic Multidecadal Oscillations. *Nature Communications* 8(1): 2222.
7. **Jaime Madrigal-González**, Paloma Ruiz-Benito, Sophia Ratcliffe, Joaquín Calatayud, Gerald Kändler, Aleks Lehtonen, Jonas Dahlgren, Christian Wirth, Miguel A. Zavala (2016) Complementarity effects are contingent on tree size across large-scale structural and climatic gradients. *Scientific Reports* 6: 322333 (DOI: 10.1038/srep32233).
8. Joaquín Calatayud, José Luis Hórreo, **Jaime Madrigal-González**, Miguel Á. Rodríguez, Sara Magalhães, Joaquín Hortal (2016). Geography and major host evolutionary transitions shape resource use by plant parasites. *Proceedings of the National Academy of Science* 113: 9840-9845 (DOI: 10.1073/pnas.1608381113).
9. **Jaime Madrigal-González**, Miguel Á. Zavala (2014) Competition and tree age modulated last century pine growth responses to high frequency of dry years in a water limited forest ecosystem. *Agricultural and Forest Meteorology* 192-193: 18-26.
10. **Jaime Madrigal**, Douglas A. Kelt, Peter L. Meserve, Julio R. Gutiérrez, Francisco A. Squeo (2011) Bottom-up control of consumers leads to top-down indirect facilitation of invasive annual herbs in semi-arid Chile. *Ecology* 92: 282-288.

C.2. Congress, indicating the modality of their participation (invited conference, oral presentation, poster)

1. **Jaime Madrigal-González**, Joaquín Calatayud, Juan A. Ballesteros-Cánovas, Adrián Escudero Markus Stoffel (Oral presentation) Climate reverses causality in the diversity-abundance relationship in natural plant communities: insights across spatial and temporal sources of variability. 64th IAVS Annual Symposium. Madrid 27th June-1st June, 2022.
2. **Jaime Madrigal-González**, Joaquín Calatayud, Juan A. Ballesteros-Cánovas, Marta Rueda, Cristina Aponte, Luis Cayuela, Paloma Ruiz-Benito, Rodrigo Sagardia, Andrew J. Plumptre, Sylvain Dupire, Carlos I. Espinosa, Olga Tutubalina, Mo Mint, Luciano Pataro, Asier Herrero, Jerome López-Sáez, Miguel A. Zavala, Adolfo Quesada-Román, Mauricio Vega-Araya, Markus Stoffel (Oral presentation) Causality in the diversity-abundance relationship across the main world's forest biomes: insights for nature-based mitigation solutions. EGU General Assembly. Viena 3-4 May, 2020 (online).
3. **Jaime Madrigal-González** (Oral presentation). Natural tree mortality in *Pinus sylvestris* dry-edge populations. Climate Extremes: New ideas for quantifying changes and improving resilience. Riederalp, Switzerland, March 12-19, 2019.
4. **Jaime Madrigal-González**, Enrique Andivia, Miguel A. Zavala, Markus Stoffel, Joaquín Calatayud, Raúl Sánchez-Salguero, Juan Ballesteros-Cánovas. Unveiling the climate change signature on tree growth in a cold-Mediterranean dry forest ecotone (Poster). Global change and Patagonian Ecosystem Response: Present and Future Challenges. Coyhaique, Chile, 2017.
5. **Jaime Madrigal-González**. Climate change (Invited speaker/oral presentation). Workshop 'Environmental problems: Theory and application'. Katowice, Polonia, 2015.

6. **Jaime Madrigal-González**, Paloma Ruiz-Benito, Sophia Ratcliffe, Joaquín Calatayud, Miguel A. Zavala. Complementarity from the viewpoint of two contrasted Iberian pine species (Poster). Medpine5. International Conference on Mediterranean Pines. Solsona, Spain, 2014.
7. **Jaime Madrigal-González** and Miguel A. Zavala. Stand structure and tree age modulated last century tree growth decline in response to increasing drought frequency in a Mediterranean pine ecosystem (Oral presentation). Climate Extremes and Biogeochemical Cycles Conference. Seefeld in Tirol, Austria, 2013.

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

1. Biodiversidad Urbana para mitigar el cambio climático. Un caso de estudio en la localidad de Cuéllar. Participation: Principal Researcher. Institution: CaixaBank/Fundación Caja Segovia (12000 Euros) (2021-2022).
2. LIFE Soria ForestAdapt (LIFE19 CCA/ES/0011816RA-I00). Participation: Member of the working team (Modelling species distribution). Institution: European Comission, LIFE program (1595745 Euros) (2020-2024).
3. UNIPER (PID2020-114851GA-I00): Unidos persistimos: causas y consecuencias de las asociaciones de las especies raras para descifrar su persistencia en comunidades biológicas. Participation: Member of the working team. Institution: Ministerio de Ciencia e innovación, National plan for research projects (137698 euros) (2021-2024).
4. ADAPTAMIX (PID2019-110470RA-I00): ADAPTACIÓN de los bosques mediterráneos al cambio climático: el papel de las masas MIXtas en el fomento de la resiliencia a eventos de sequía. Participation: Member of the working team. Institution: Ministerio de Ciencia e innovación, National plan for research projects (105270 Euros) (2020-2023).
5. FLUCTREE: Temporal FLUCtuation in the responses to climatic variability in old TREE populations. Participation: Principal researcher. Institution: Swiss Academy of Sciences, Call for Projects in the Swiss National Park. (15000 Swiss Francs) (2020-2021).
6. AGORA (CGL-2016-77417-P): Unraveling global rules of species assembly: an experimental approach based on annual plant communities in semi-arid systems worldwide (IP: Dr. Arantzazu López de Luzuriaga Gamboa, Universidad Rey Juan Carlos). Participation: Member of the research team. Institution: Ministerio de Economía y Competitividad (MINECO), call for projects of excellence (136730 Euros) (2016-2021).
7. VULPINECLIM (CGL2013-44553-R): Vulnerabilidad de Pinares Ibéricos al cambio climático: Impactos históricos y modelización de escenarios futuros para la adaptación (IP: Dr. Miguel A. Zavala). Participation: Postdoctoral researcher. Institution: Ministerio de Economía y Competitividad (MINECO) call for research projects RETOS. (50000 Euros). (2014-2015).
8. FUNDIV-Europe (FP7-265171): Functional significance of biodiversity. (Coordinator Dr. Michael Scherer-Lorenzen, University of Leipzig, Germany). Participation: Postdoctoral researcher. Institution: European Comission, FP7 (9233189 Euros) (2010-2015)
9. CARBO-Extreme (FP7-226701): The terrestrial carbon cycle under climate variability and extremes. Participation: Postdoctoral researcher. Institution: European Comission, FP7 (4677524 Euros) (2009-2013)
10. Estudio de la composición y la diversidad de comunidades vegetales del Cañón del Río Cega. Participación: Co-investigador principal (CoIP). Institution: Obra Social Caja de Ahorros y Monte de Piedad de Segovia, convocatoria competitiva de proyectos 2006 (6000 Euros).