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	José Antonio		
Family name	Molina Abril		
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]		
e-mail	jmabril@ucm.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		0000-0003-4348-6015	

(*) Mandatory

A.1. Current position

Position	Profesor Titular de Universidad	
Initial date	11-02-2002	
Institution	Universidad Complutense de Madrid (UCM)	
Department/Center	Biodiversity, Ecology and Evolution	Faculty of Biological Sciences
Country	Spain	[redacted]
Key words	Vegetation, Plant Ecology, Biodiversity, Mediterranean habitats, grasslands	

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

Period	Position/Institution/Country/Interruption cause
08.03.1990-07.03.1995	Assistant Professor/UCM/Spain
08.03.1995-0.02.2002	Associated professor /UCM/Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Degree in Pharmacy	Complutense University of Madrid	1982
Doctor in Pharmacy	Complutense University of Madrid	1992

(Include all the necessary rows)

A.4. Sexenios

Number	Period
1	1998-2003
2	2004-2009
3	2010-2015
4	2016-2021

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

Regarding my scientific contributions in the last 10 years, I have been the author of 24 research papers, all indexed in JCR (11 Q1 and 7 Q2), and one book chapter. I have given 5 scientific communications at international and national meetings. A large part of these contributions is derived from theses I have supervised. They deal with different aspects of plant and vegetation ecology. These works have revealed the bioindicator role of aquatic buttercups in the quality and nature of inland waters, as well as in the characterization of aquatic habitats. It has also made it possible to generate hypothesis about how important the habitat for is explaining the phylogeny of the group. I have also contributed to the generation of knowledge on the ecology and distribution on tall humid herb grasslands which highest biodiversity is reached on base-

rich soils in western Mediterranean. This allowed us to highlight priorities for conservation policies of this habitat, as well as to study the phylogenetic connections between the Mediterranean *Scirpoides* with the southern African species of the genus.

More recently, I have been working on the response of the attributes of plant communities in abandoned agrosystems and its relationships with soil dynamics and climate variation. Results showed that secondary succession produced major changes during the two first decades after abandonment, which led to an improvement in ecosystem functionality. In a short-term study we demonstrated that the extreme drought event increased the activity of enzymes related to the carbon and nitrogen cycle, as well as the stock of total organic carbon. In contrast, plant species density and the cover of certain plant functional traits such as mycorrhizal symbiotic plants and N-fixers decreased significantly. Our results also proved that extreme drought events had a higher negative impact on lands that had been abandoned for longer.

Lately, I am involved in the study of ecosystem benefits of Mediterranean urban greenspaces aiming to know which of the most often ruderal habitats found in urban greenspaces have a greater biodiversity and provide better ecosystem services. From the results obtained so far, we conclude that in Mediterranean cities, plant communities are good descriptors of urban habitats and indicators of ecosystem function and services, and that the degree of soil disturbance determines the plant communities and the ecosystem services they provide. As results already achieved, we also found that natural succession from annual to perennial grasslands in Mediterranean urban greenspaces improves certain ecosystem services namely water regulation, carbon storage and soil enzyme activity. My future scientific perspectives intend to delve in knowledge on the effect of the management on ecological processes to improve ecosystem services (i.e biodiversity conservation, carbon storage, water regulation, nutrient cycles, pollination) in Mediterranean urban green areas. The project that we submit for funding summarizes very well our intentions. That is why I consider that if we receive adequate financing such as the one, we request in this project, we will be able to make an important qualitative and quantitative advance in the topic and we will provide interesting contributions to the society.

I have been involved in international collaborations related to European Red List Projects. I participated in the Red List of European Habitats. The aim of this red list was to assess the risk of habitat collapse in Europe. This reference has reached so far 204 citations in Google Academics. The conservation status of 194 of lycopods and ferns native to Europe was evaluated. The objective of a red list like this was to bring to the public the urgency of conservation problems, as well as help the international community reduce extinction.

In the last 10 years, I have presented different activities that generate social value within which are worth mentioning the following. For example, I have participated in six Article 83 contracts (now 60) as Principal Research with a total funding of 31,250 euros.

My leadership skills have been developed through supervising Master's and Doctoral Projects. In the last 10 years, I have been supervisor of 3 Ph.D. (Ana Lumbreras, Elena Castoldi, Ana García-Madrid). I have reviewed manuscripts in different scientific Journals such as Biodiversity and Conservation, Wetlands, Aquatic Botany, etc. I am also Review Editor in Frontiers in Plant Science (Plant Abiotic Stress) since January 11, 2017.

I am currently co-director of the UCM Fitosolum research group with proven experience in studies on vegetation ecology and on physicochemical properties and soil biology. This group was submitted in 2017 to an external Evaluation by the State Research Agency in which it rated the issue B (good).

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications *(see instructions)*

-Martín-Sanz, J.P., Valverde-Asenjo, I., Casermeiro, M.A., Molina J.A., Quintana, J. R. A new quality index based on soil-vegetation networks to determine the recovery of functionality in abandoned agrosystems. Ecological Indicators Volume 158, 2024, 111466, https://doi.org/10.1016/j.ecolind.2023.111466

-Molina J.A., Martín-Sanz J.P., Casermeiro, M.A., Quintana, J.R. 2024. Soil depth and vegetation type influence ecosystem function in urban greenspaces. Applied Soil Ecology, 194, 2024, 105209. https://doi.org/10.1016/j.apsoil.2023.105209.

-Molina J.A., Martín-Sanz J.P., Casermeiro M.A. José Ramón Quintana. 2023. Spontaneous urban vegetation as an indicator of soil functionality and ecosystem services. Applied Vegetation Science, 26, e12728

-Quintana J. R., Martín-Sanz J. P., Valverde-Asenjo I., Molina J.A. 2023. Drought differently destabilizes soil structure in a chronosequence of abandoned agricultural lands. Catena 222, Article 106871. https://doi.org/10.1016/j.catena.2022.106871

-Quintana J. R., Molina J. A., Diéguez A., Valverde-Asenjo I. 2021. Inter-annual climate variability determines the efficiency of functional recovery in dry Mediterranean abandonment agrosystems. Land Degradation & Development Land Degradation & Development 32:1883–1900. https://doi.org/10.1002/ldr.3843.

-Valverde Asenjo I., Diéguez Antón A., Martín-Sanz J.P., Molina J.A., Quintana J.R. 2020 Soil and vegetation dynamics in a chronosequence of abandoned vineyards. Agriculture,

-García-Madrid A.S., Rodríguez-Rojo, M.P, Cantó P. & Molina J.A. Diversity and classification of Mediterranean tall humid herb grasslands (Molinio-Holoschoenion) in Western Europe. Applied Vegetation Science, 19 736–749. 2016.

-García-Madrid A.S., Muasya M., Álvarez I., Cantó P. & Molina J.A. 2015. Towards resolving phylogenetic relationships in the Ficinia clade and description of the new genus Afroscirpoides (Cyperaceae: Cypereae). Taxon 64 (4): 688–702.

-Benavent-González A.; Lumbreras A.; Molina J.A. 2014. Plant communities as a tool for setting priorities in biodiversity conservation: a novel approach to Iberian aquatic vegetation. Biodiversity and Conservation 23: 2135-2154. DOI 10.1007/s10531-014-0709-3.

-Lumbreras A., Molina J.A., Benavent A., Marticorena A., Pardo C. 2014. Disentangling the taxonomy and ecology of South American Ranunculus subgen. Batrachium. Aquatic Botany 114: 21–28.

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

-XXXI Reunión Nacional de Suelos
Organizing committee. Madrid. 6-9 June 2017
-IX Congreso Nacional de Apicultura
Importancia apícola y agroambiental de algunas especies cultivadas de la familia crucífera en Castilla-La Mancha. Poster. Santa Cruz de Tenerife. 25-27 October 2018
-9th Biennial Conference of the International Biogeography Society
Using plant community attributes to identify bioclimate indicators along an elevational gradient in a sub-Antartic environment. Poster. Málaga. 8-12 January 2019
-9th Biennial Conference of the International Biogeography Society
What distinguishes (and does not distinguish) vernal pool habitats on both sides of the Strait of Gibraltar? Poster. Málaga. 8-12 January 2019
-28th Meeting European Vegetation Survey
Succession in soil and plant-community attributes along a chrono-sequence of abandonment vineyards. Oral communication. Madrid. 2-6, September

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

I have been involved in the research teams of the following projects:

-Beneficios ecosistémicos de los espacios verdes urbanos mediterráneos para una transición ecológica (TED2022-130043B-100. Funding entity: Ministerio de Ciencia e Innovación. Duration: 01/12/2022 - 30/11/2024. Amount: 211,600 €. Responsible Researchers: José Antonio Molina & Miguel Ángel Casermeiro.

-Adaptation of the olive grove to AdaptCOliva climate change scenarios. Funding entity: Biodiversity Foundation. Duration: 06/30/2018 - 06/30/2019. Amount: 118,614 €. Responsible Researcher: Miguel Ángel Casermeiro.

-European Red List of Habitats. Funding entity: DG ENV, European Union. Duration: 06.2014 / 06.2017. Amount: 1.5 million €. Responsible Researchers: John Jansen & John Rodwell

-The interaction of pathogens, food and agricultural practices on bee colonies. Its relationship with the depopulation syndrome in Spain. Funding entity: INIA (RTA 2013 - 00042 - C 10 - 06). Duration: 06.2014 / 06.2017. Amount: 191,400 €. Responsible Researcher: Mª Dolores Hernando

-Environmental gradients in Antarctic terrestrial ecosystems. Diversity and plant productivity from Tierra de Fuego to the trans-Antarctic mountains. CTM2009-12838-C04-01 (ANT subprogram). Financing entities: Ministry of Science and Innovation. Duration: 2009-2012. Amount: 223,000 €. Responsible Researcher: Leopoldo García-Sancho

C.4. Contracts, technological or transfer merits, include patents and other industrial or intellectual property activities (contracts, licenses, agreements, etc.) in which you have collaborated. Indicate: a) the order of signature of authors; b) reference; c) title; d) priority countries; e) date; f) Entity and companies that exploit the patent or similar information, if any

- Proyecto: Effect of bee foraging on the release of airborne pollen in oilseed rape (Brassica napus L.). Principal Investigator: José Antonio Molina Abril. Period: 03/24/2017 to 12/31/2017. Amount: 24,000 euros. This participation is based on a research contract between the Center of Recherches INRA PACA and the Complutense University of Madrid to carry out an investigation based on "Effect of bee foraging on the release of airborne pollen in oilseed monkfish (Brassica napus L.)". This collaboration was possible due to the experience of our research team in pollen identification and biodiversity studies. This contract allowed the hiring through the OTRI of 1 postdoctoral researcher under the project. José Antonio Molina was Director of the Contract / Agreement.
- Proyecto: 233-2016/hábitats para el proyecto Hábitat de Red Eléctrica, S.A.U. Customer: Evaluación Ambiental, S.L. Principal Investigator: José Antonio Molina. Duration: 13-07-2016 / 29-07-2016. Amount: 650 euros
- Proyecto: 88-2017/Asesoramiento sobre hábitats para el “Proyecto Hábitat de Red Eléctrica, S.A.U. – Comunidades Autónomas de Cantabria y Asturias”. Customer: Evaluación Ambiental, S.L. Principal Investigator: José Antonio Molina Abril. Duration: 24-03-2017 / 10-04-2017. Amount: 900 euros
- Proyecto: 382-2017/hábitats para el “Proyecto Hábitat de Red Eléctrica, S.A.U. – Comunidades Autónomas de Galicia y Madrid” Customer: Evaluación Ambiental, S.L. Principal Investigator: José Antonio Molina Abril. Duration: 27-11-2017 / 10-04-2018. Amount: 900 euros
- Proyecto: 256-2018/Proyecto EA_036_repo_L_Loeches_SS Reyes. Customer: Evaluación Ambiental, S.L. Principal Investigator: José Antonio Molina Abril- Duration: 20-09-2018 / 16-10-2018. Amount: 900 euros

Fecha del CVA	01/10/2025

Parte A. DATOS PERSONALES

Nombre	VICTORIA		
Apellidos	FERRERO VAQUERO		
Sexo			
URL Web			
Dirección Email	victoria.ferrero@unileon.es		
Open Researcher and Contributor ID (ORCID)	0000-0002-2091-8957		

1. ACTIVIDAD INVESTIGADORA, DE TRANSFERENCIA E INTERCAMBIO DELCONOCIMIENTO

1.1. PROYECTOS Y CONTRATOS DE INVESTIGACIÓN Y TRANSFERENCIA EINTERCAMBIO DEL CONOCIMIENTO

1.1.1. Proyectos

1 Proyecto. Síndromes de adaptación en rasgos foliares de especies arbóreas: avanzando hacia la comprensión del significado adaptativo de la hibridación en Quercus faginea x Q. pyrenaica. Programa Estatal de Generación de Conocimiento y Fortalecimiento Científico y Tecnológico del Sistema de I+D+i y del Programa Estatal de I+D+i Orientada a los Retos de la Sociedad, del Plan Estatal de Investigación Científica y Técnica y de Innovación 2017-2020.. Sonia Mediavilla Gregorio. (Universidad de Salamanca). 01/09/2021-31/08/2026. 133.342 €. Miembro de equipo.

2 Proyecto. Seguimiento del estado de conservación en España de las especies de flora autóctona protegida, "Plan de recuperación transformación y resiliencia - financiado por la Unión Europea - NEXTGENERATIONEU- TEC0006226" SEFAMAX - CYLE. Carmen Acedo. (Universidad de León). 10/04/2024-30/05/2025.

3 Proyecto. 5355 / 6399, The role of phenotypic plasticity in Oxalis pes-caprae invasion worldwide.. British Ecological Society. Victoria Ferrero. (Universidade de Vigo & University of Toronto (Canada)). 2015-2017. 5.677 €. Investigador principal.

4 Proyecto. Heterostylous plants in the Brazilian Cerrado: variations in reciprocal herkogamy and style morph ratios. Percy Sladen Memorial Trust (The Linnean Society of London).. Victoria Ferrero. (Universidade de Vigo). 2016-2016. 689,1 €. Investigador principal.

5 Proyecto. Distribution patterns of floral morphs and sexual reproduction of the invasive Oxalis pes-caprae in Australia. Percy Sladen Memorial Trust (The Linnean Society of London).. Victoria Ferrero. (Universidade de Vigo & University of Toronto (Canada)). 20142014. 975 €. Investigador principal.

6 Proyecto. Reproductive modes of the invasive Oxalis pes-caprae (Oxalidaceae) in California.. Percy Sladen Memorial Trust (The Linnean Society of London).. Victoria Ferrero. (Universidade de Vigo & University of Toronto (Canada)). 20142014. 573,75 €. Investigador principal.

7 Proyecto. PTDC/BIA-BIC/110824/2009, Evolutionary changes to reproductive systems during the invasion process of the polyploid

Oxalis pes-caprae. PTDC/BIA-BIC/110824/2009. Fundação para a Ciência e a Tecnología (FCT): PTDC/BIA-BIC/110824/2009. João Loureiro. (Centre for Functional Ecology- Universidad de Coimbra). 2010-2014. 167.349 €. Miembro de equipo.

8 Proyecto. FCT-10-1714, Ecology dissemination in 3D. FCT-10-1714. Fundación Española para la Ciencia y la Tecnología (FECYT): FCT-10-1714.. Luis Navarro. (University of Vigo). 2010-2011. 15.000 €.

9 Proyecto. PT2009-0068, Reproductive biology and evolution of Oxalis pes-caprae, a polyploidy species invasive in the Mediterranean region. PT2009-0068. Ministerio de Ciencia e Innovación. Investigación. Luis Navarro. (University of Vigo). 2009-2010. 8.000 €.

1.2. RESULTADOS Y DIFUSIÓN DE LA ACTIVIDAD INVESTIGADORA Y DE TRANSFERENCIA E INTERCAMBIO DE CONOCIMIENTO

1.2.1. Actividad investigadora

AC: Autor de correspondencia; (n° x / n° y): posición firma solicitante / total autores. Si aplica, indique el número de citaciones

1 Artículo científico. (1/4) Victoria Ferrero (AC); Juan Arroyo; Silvia Castro; Luis Navarro.2012. Unusual heterostyly: style dimorphism and self-incompatibility are not tightly associated in Lithodora and Glandora (Boraginaceae).". Annals of Botany. OXFORD UNIV PRESS. 109-Special Issue, pp.655-665. ISSN 0305-7364. SCOPUS (11). JCR (3.449).

2 Artículo científico. (1/4) VICTORIA FERRERO (AC); Luis Navarro; James D. Thomson; Spencer C. H. Barrett. 2025. Influence of sex-organ positions on pollen transfer and self-interference in plants with stylar polymorphisms: An experimental approach using three-dimensional printed flowers. Functional Ecology. Wiley. 39, pp.2526-2538.

3 Artículo científico. ; (2/7) L; V; E; JA; E; A. 2022. Resistance and not plant fruit traits determine root-associated bacterial community composition along a domestication gradient in tomato.Plants. 11, pp.43. ISSN 2223-7747. JCR (4.658).

4 Artículo científico. Paula Lorenzo; Luis González; (3/3) Victoria Ferrero. 2021. Effect of plant origin and phenological stage on the allelopathic activity of the invasive species Oxalis pes-caprae. American Journal of Botany. 108-6, pp.1-9. ISSN 0002-9122. JCR (3.034). https://doi.org/doi:10.1002/ajb2.1685

5 Artículo científico. Victoria Ferrero; Lander Baeten; Lidia Blanco-Sánchez; Rosario Planelló; José A Díaz-Pendón; Susana Rodríguez-Echeverría; Annelies Haegeman; Eduardo de la Peña. 2020. Complex patterns in tolerance and resistance to pests and diseases underpin the domestication of tomato.New Phytologist. 226, pp.254-266.

6 Artículo científico. Victoria Ferrero; Luis Navarro; Silvia Castro; João Loureiro; José M Sánchez; Gastón O Carvallo; Spencer CH Barrett. 2020. Global patterns of reproductive and cytotype diversity in an invasive clonal plant.Biological Invasions. 22, pp.1691-1703. JCR (3.087).

7 Artículo científico. Joicy M Morais; Hélder N Consolaro; LL Bergamini; (4/4) Victoria Ferrero (AC). 2020. Reproductive biology and pollinators in two enantiostylous Qualea species (Vochysiaceae) in the Brazilian Cerrado.Plant Biology. 22-5, pp.872-880. JCR (2.167).

8 Artículo científico. (1/5) Victoria Ferrero (AC); Spencer CH Barrett; Danny Rojas; Juan Arroyo; Luis Navarro. 2017. Associations between sex-organ deployment and morph bias in related heterostylous taxa with different stylar polymorphisms. American Journal of Botany. 104, pp.50-61. ISSN 0002-9122. JCR (2.811 (2015)). https://doi.org/10.3732/ajb.1600345

9 Artículo científico. Joana Costa; (2/6) Victoria Ferrero; Mariana Castro; João Loureiro; Luis Navarro; Silvia Castro. 2017. Variation in the incompatibility reactions in tristylous Oxalis pes-caprae: large-scale screening in South African native and Mediterranean basin invasive populations. Perspectives in Plant, Ecology, Evolution and Systematics. ELSEVIER GMBH, URBAN & FISCHER VERLAG. 24, pp.25-36. ISSN 1433-8319. JCR (3.578 (2015)).

10 Artículo científico. Silvia Castro; Mariana Castro; (3/7) Victoria Ferrero; Joana Costa; Daniela Tavares; Luis Navarro; João Loureiro. 2016. Invasion fosters change: independent evolutionary shifts in reproductive traits after Oxalis pes-caprae L. introduction. Frontiers in Plant Science. FRONTIERS MEDIA SA. 7-874. ISSN 1664-462X. SCOPUS (1). JCR (4.495 (2015)).

11 Artículo científico. (1/7) Victoria Ferrero (AC); Spencer CH Barrett; Silvia Castro; Patricia Cladeirinha; Luis Navarro; João Loureiro; Susana Rodríguez- Echeverría. 2015. Invasion genetics of the Bermuda buttercup (Oxalis pes?caprae): Complex intercontinental patterns of genetic diversity, polyploidy and heterostyly characterize both native and introduced populations. Molecular Ecology. WILEY-BLACKWELL. 24, pp.2143-2155. ISSN 0962-1083. SCOPUS (9). JCR (5.947).

12 Artículo científico. (1/6) Victoria Ferrero (AC); Silvia Castro; Joana Costa; Paola Acuña; Luis Navarro; João Loureiro. 2013. Effect of invader removal: pollinators stay but some native plants miss their new friend. Biological Invasions. SPRINGER. 15, pp.2347-2358. ISSN 1387-3547. SCOPUS (12). JCR (2.716).

13 Artículo científico. (1/4) Victoria Ferrero (AC); Danny Rojas; Ángel Vale; Luis Navarro.2012. Delving into the loss of heterostyly in Rubiaceae: Is there a similar trend in tropical and non-tropical climate zones?". Perspectives in Plant, Ecology, Evolution and Systematics. ELSEVIER GMBH, URBAN & FISCHER VERLAG. 14, pp.161-167. ISSN 1433-8319. SCOPUS (4). JCR (4.158).

14 Artículo científico. Danny Rojas; (2/4) Ángel Vale; Victoria Ferrero; Luis Navarro. 2012. The role of frugivory in the diversification of bats in the Neotropics". Journal of Biogeography. WILEY-BLACKWELL. 39-Special issue, pp.1948-1960. ISSN 0305-0270. SCOPUS (17). JCR (4.863).

15 Artículo científico. (1/4) Victoria Ferrero (AC); Silvia Castro; José M. Sánchez; Luis Navarro. 2011. Stigma-anther reciprocity, pollinators and pollen transfer efficiency in populations of heterostylous species of Lithodora and Glandora (Boraginaceae).". Plant Systematics and Evolution. SPRINGER WIEN. 291, pp.267-276. ISSN 0378-2697. SCOPUS (18). JCR (1.335).

16 Artículo científico. José M. Sánchez; (2/4) Victoria Ferrero; Juan Arroyo; Luis Navarro.2010. Patterns of style polymorphism in five species of the South African genus Nivenia (Iridaceae).". Annals of Botany. OXFORD UNIV PRESS. 106, pp.321-331. ISSN 0305-7364. SCOPUS (11). JCR (3.388).

17 Congreso. Victoria Ferrero; Angel Argüelles; Claudia Aguirre; Raul Lois; Saul Manzano; Estrella Alfaro-Saiz; Carmen Acedo. Taxonomy and conservation: the case of Tragopogon pseudocastellanus Blanca & C. Díaz. XI Congreso de Biología de la Conservación de Plantas. 2023. España. Congreso.

18 Congreso. Spencer SC Barrett; Gastón Carvallo; José M Sánchez; João Loureiro; Silvia Castro; Luis Navarro; Victoria Ferrero. Global patterns of floral morph variation, ploidy level and sexual reproduction in the clonal invasive Oxalis pes-caprae. XIV MEDECOS & XIII AEET meeting Human driven scenarios for evolutionary and ecological changes. ISOMED, the International Society of Mediterranean Ecology. 2017. España.

19 Congreso. Joana Costa; Victoria Ferrero; Mariana Castro; João Loureiro; Luis Navarro; Silvia Castro. Baker knew a lot: evidences of changes in the mating systems during the invasion process.. 4° Encuentro Ibérico de Ecología. La Ecología y los retos sociales.. Asociacion Española de Ecología Terrestra y Speco. 2015. Portugal.

20 Congreso. Victoria Ferrero; Danny Rojas; Juan Arroyo; Luis Navarro. Comparative analyses identify deterministic factors driving morph bias in style polymorphic species.. Modern phylogenetic comparative methods. Universidad de Sevilla. 2014. España.

21 Congreso. Mariana Castro; Victoria Ferrero; Joana Costa; Sergio Roiloa; João Loureiro; Luis Navarro; Silvia Castro. Do native and invasive populations of Oxalis pes-caprae differ in reproductive traits?. XIV Congress of the European Society for Evolutionary Biology.. Society for Evolutionary Biology. 2013. Portugal.

22 Congreso. Mariana Castro; Victoria Ferrero; Joana Costa; Luis Navarro; João Loureiro; Sergio Roiloa; Silvia Castro. Sexual and asexual reproduction traits among cytotypes and floral morphs of Oxalis pes-caprae invasive populations. "NEOBIOTA 2012. 7th European Conference on Biological Invasions". GEIB - Grupo especialista en invasiones biológicas. 2012. España. Participativo - Póster. Congreso.

23 Congreso. Joana Costa; Victoria Ferrero; João Loureiro; Luis Navarro; Sílvia Castro.. Reacquisition of the sexual status in the invasive Oxalis pes-caprae.. "12th European Ecological Federation Congress". European Ecological Federation (EEF), Spanish Association of Terrestrial Ecology (AEET), Portuguese Ecological Society (SPECO). 2011. España. Participativo - Póster. Congreso.

24 Congreso. Victoria Ferrero; Danny Rojas; Angel Vale; Luis Navarro. The evolution of heterostyly in the Spermacoceae Alliance (Rubiaceae). "TIBE: Trends in Biodiversity and Evolution". CIBIO-Centro de Investigacion en Biodiversidad y Recursos Genéticos. 2010. Portugal. Participativo - Póster. Congreso.

25 Congreso. Victoria Ferrero; Luis Navarro; Juan Arroyo.. An analysis of stylar polymorphism in the Mediterranean genus Lithodora (Boraginaceae). X. EUROPEAN ECOLOGICAL CONGRESS. European Ecological Federation Turkish Ecological Society Ege University Centre for Environmental Studies. 2005. Turquía. Participativo - Ponencia oral (comunicación oral). Congreso.

1.2.2. Transferencia e intercambio de conocimiento y actividad de carácter profesional

Actividad de carácter profesional

1 Profesora titular de Universidad: Universidad de León. 2023- actual.

2 Profesora contratada doctor: Universidade de León. 02/08/2022. (1 año - 4 meses).

3 Profesora ayudante doctor: Universidade de León. 06/10/2020. (1 año - 11 meses).

4 Investigadora posdoctoral: Fundaçao para a Ciençia e a Technologia. 01/09/2016. (4 años - 1 mes).

5 Investigadora postdoctoral Xunta de Galicia (programa I2C): XUNTA DE GALICIA. 01/08/2015. (1 año). Becario/a (pre o posdoctoral, otros).

Explicación narrativa de la aportación

Funciones desempeñadas

Research activity in the frame of my postdoctoral project: Importance of genetic architecture and phenotypic plasticity in the invasion process of Oxalis pes-caprae. (funding agency: Xunta de Galicia - returned year)

6 Investigadora postdoctoral Xunta de Galicia (programa I2C): XUNTA DE GALICIA. 01/08/2013. (2 años). Becario/a (pre o posdoctoral, otros).

Explicación narrativa de la aportación

Funciones desempeñadas

Actividad de investigación en el marco de mi proyecto posdoctoral: Importancia de la arquitectura genética y la plasticidad fenotípica en el proceso de invasión de Oxalis pes-caprae (periodo estancia en el extranjero)

7 Investigador posdoctoral: Fundación Ramón Areces. 01/10/2010. (2 años). Becario/a (pre o posdoctoral, otros).

Explicación narrativa de la aportación

Funciones desempeñadas

Proyecto de investigación postdoctoral: reproducción sexual y asexual en Oxalis pes-caprae, una especie poliploide en el área mediterránea

8 Becario predoctoral (contrato-FPU): Universidade de Vigo. 01/04/2007. (2 años). Contrato laboral temporal.

Explicación narrativa de la aportación

Funciones desempeñadas

Desarrollo del proyecto de doctorado: Ecología y evolución del polimorfismo floral en Lithodora (Boraginaceae)

2. ACTIVIDAD DOCENTE

2.1. EXPERIENCIA DOCENTE

2.1.1. Dedicación docente (se acredita con el certificado que se adjunta en la sedeelectrónica de ANECA)

2.2. EVALUACIÓN DE LA CALIDAD DOCENTE E INNOVACIÓN

Evaluación mediante certificado/s (DOCENTIA) que se adjuntan en la sede de ANECA

2.2.1. Calidad de la actividad docente

Evaluación mediante autoinforme que se adjunta en la sede de ANECA

3. LIDERAZGO

3.5. OTROS MÉRITOS

Número de Tesis doctorales dirigidas: 2

Evaluación positiva de 3 sexenios de investigación (CNEAI): 2005-2011, 2012-2018,
2019-2024

Número de citas totales: 1438 (Google Scholar)

Indice H: 22 (Google Scholar)

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ESTATAL DE
INVESTIGACIÓN

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	**ROSA MARÍA**		
Family name	**ROS ESPÍN**		
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]		
e-mail	rmros@um.es	URL Web	https://webs.um.es/rmros/miwiki/doku.php
Open Researcher and Contributor ID (ORCID) (*)		0000-0003-2115-2911	

A.1. Current position

Position	PROFESSOR OF BOTANY		
Initial date	30/05/2002		
Institution	UNIVERSIDAD DE MURCIA		
Department/Center	BIOLOGÍA VEGETAL	FACULTAD DE BIOLOGÍA	
Country	SPAIN	[redacted]	[redacted]
Key words	BOTANY, BRYOPHYTES, SYSTEMATIC, TAXONOMY, EVOLUTION, CLIMATE CHANGE, POPULATION GENETICS, MEDITERRANEAN		

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

Period	Position/Institution/Country/Interruption cause
1989-2002	Profesora Titular de Universidad/Universidad de Murcia
1987-1989	Profesora Asociada/Universidad de Murcia
1982-1987	Profesora Ayudante/ Universidad de Murcia

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Ph.D. Biological Sciences	Universidad de Murcia	1986
Licensed Biological Sciences	Universidad de Murcia	1981

Number of research six-year terms recognized and awarded officially at national level: six
Number of knowledge transfer six-year terms: one

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

I started my scientific career in 1982 studying the bryophyte flora and vegetation of the Murcia Region, pioneering the bryology at Murcia University (MU). I made important additions to the knowledge of the bryophytes in SE Spain reporting new species and describing the ecological terricolous communities. I confirmed the hypothesis that despite being one of the driest areas of the Iberian Peninsula, the bryophyte diversity of Murcia is greater than expected. After obtaining my doctorate in 1986, I continued contributing to achieving a deep knowledge of bryophytes in S Spain. I became very interested in northern Africa due to its proximity, the scarce knowledge of bryophytes, and the absence of bryologists. My first contribution to this topic was the update of the checklist of the bryophytes of northern Africa. Later I obtained funds to explore Morocco. As a result, I could verify the hypothesis that the bryophyte flora on both sides of the western Mediterranean is very similar. I became the leader of the OPTIMA Bryophyte Commission and coordinated the checklists of the liverworts, hornworts, and mosses of the Mediterranean Region, with the participation of about 20 bryologists. At the same time, I carried out taxonomical studies mainly on the Pottiaceae family, using first techniques based on morphology. In my publications, the taxonomic complexity of the family was greatly simplified, and the articles are widely used since the wide distribution of bryophytes makes them useful worldwide. Since 2001, we became the first Spanish bryological group to carry out molecular systematics studies, together with American and German bryologists, with whom I have collaborated on several relevant

papers. Among the more important contributions to the generation of knowledge on this topic are my studies about the phylogeny of the Pottiaceae, in which we proved the hypothesis of R.H. Zander, stating that the sporophyte in this family can vary greatly and has no relevance for the classification of the genera. I was a member of the Iberian Bryophyte Flora research team, contributing particularly to the Pottiaceae volume. In 2007 I led my own research group at MU, addressing the study of various aspects of bryophyte biology, such as the effects of climate change through the study of altitudinal transects in Mediterranean mountainous areas using cosmopolitan species, and their genetic adaptation to environmental conditions. In collaboration with renowned researchers, I proved the hypothesis that in widely distributed species genetic lineages adapted to certain climatic conditions exist. Another line of research I have pursued is hybridization as a driver of biological evolution. I have been able to demonstrate the existence of hybrid-origin species in various genera and the processes through which they have arisen. I was always worried about biodiversity conservation; therefore, I worked on the ex-situ bryophyte techniques and coauthored the Spanish red book and European red list. I have described 13 species new to science. 141 peer-reviewed of my publications are listed in JCR: 2 in a journal D1, and other 15 in Q1; 71 publications as first/senior author; h-index: 25 (WoS), 38 (Google Scholar); 2585 citations (WoS), 5473 (Google Scholar). I was the principal investigator (PI) in 23 projects obtained in competitive calls from national and international funding bodies. I have secured about 1,021,625 € being PI, and 449,267 € as named investigator. I have presented 136 communications to congresses (oral or poster presentations) and have been invited to hold conferences in other eight cases.

I was the coordinator of the Scientific Culture Unit of MU during 2015 and 2016, so I have experience in organizing dissemination activities. Some of the more notable are The Researchers Night and The Science Week. I have participated frequently in the written press, radio interviews, and TV programs dedicated to science and researchers. Also, I have participated in or coordinated activities for secondary and primary education centers, such as the National Summer Scientific Campus Program and a project to enhance the presence of women in STEM careers classrooms (funded by FECYT). My research has developed valuable technological approaches, that have been of interest for private and public entities. I have been PI of 10 transfer contracts. In most of them, my know-how was applied to the genetic characterization of populations of endangered species. I have been officially recognized and awarded at the national level by having six research six-year terms and one for knowledge transfer.

I have contributed to the training of 11 young Ph.D. researchers, six of them are now university teachers and two are researchers in public entities. Due to the interest of my research for young people from emerging countries and my interest in collaborating with them, I have supervised or accepted in my laboratory five foreign Ph.D. students (from Egypt, the Dominican Republic, and Iran). I am frequently invited to participate in the evaluation of researchers, projects, and editorial activities. I was associate editor of *Cryptogamie, Bryologie* journal from 2014 to 2018.

Part C. RELEVANT MERITS *(sorted by typology)*
C.1. Publications *(see instructions)*

I have a total of **141 peer-reviewed publications** listed in JCR: **2** in journals **D1**, **15** in **Q1, 31** in **Q2, 58** in **Q3,** and **35** in **Q4**; **71 publications as first/corresponding/senior author**; **h-index**: **25** (WoS), **38** (Google Scholar) and **2585 total citations** (WoS), **5473** (Google Scholar), with an average of **143** (WoS) **301** (Google Scholar) **cites/year over the last 10 years.** I have also published **41 non-SCI articles, 6 books** and **18 book-chapters.** The 10 most cited or relevant for the improvement of knowledge are:

1. Werner, O., **Ros Espín, R.M.,** Bopp, M. & Atzorn, R. 1991. Abscisic-acid-induced drought tolerance in *Funaria hygrometrica* Hedw. *Planta* 186: 99-103. **IF (1997): 3.323. Q1; 159 citations.**
2. Shaw, A.J., Mcdaniel, S.F., Werner, O & **Ros, R.M.** 2002. Phylogeography and Phylodemography. *Bryologist* 105: 373-283. **IF (2002): 0.956; Q2; 81 citations.**
3. Werner, O., **Ros, R.M.** & Guerra, J. 2002. Direct amplification and NaOH extraction: two rapid and simple methods for preparing bryophyte DNA for PCR. *J. Bryol.* 24: 127-131. **IF (2002): 0.611; Q3**; **85 citations.**
4. Shaw, A.J., Werner, O. & **Ros, R.M.** 2003. Intercontinental Mediterranean disjunct mosses: morphological and molecular patterns. *Am. J. Bot.* 90: 540-550. **IF (2003): 2.373;** (**Q1**); **115 citations.**
5. Werner, O., **Ros, R.M,** Cano, M.J. & Guerra, J. 2004. Molecular phylogeny of Pottiaceae (Musci) based on chloroplast *rps4* sequence data. *Plant Syst. Evol.* 243: 147-164. **IF (2004): 1.338; Q2; 103 citations.**

6. Guerra, J, Cano, M.J. & **Ros, R.M.** (Ed.). 2006. *Flora briofítica Ibérica. Volumen III. Pottiales; Pottiaceae. Encalyptales: Encalyptaceae*. Universidad de Murcia, Sociedad Española de Briología (2006), Murcia. ISBN: 84-609-9007-4; **71 citations.**
7. 26/1. **Ros, R.M.** *et al.* 2007. Hepatics and Anthocerotae of the Mediterranean, an annotated checklist. *Cryptogam. Bryol.* 28: 351-437. **IF (2007): 0,658; Q3; 448 citations.**
8. 34/1. **Ros R.M**. *et al.* 2013. Mosses of the Mediterranean, an annotated checklist. *Cryptogam. Bryol.* 34: 97-283. **IF (2013): 1.500; Q2; 511 citations.**
9. Pisa S., Biersma E. M., Convey P., Patiño J., Vanderpoorten A., Werner O. & **Ros R.M.** 2014. The cosmopolitan moss *Bryum argenteum* in Antarctica: back-colonization from extra-regional Pleistocene refugia or in-situ survival? *Polar Biol.* 37: 1469-1477. **IF (2014): 1.586; Q3; 72 citations.**
10. Werner, O, Prudencio, A.S., De La Cruz-Martínez, E., Nieto-Lugilde, M., Martínez-Gómez, P. & **Ros, R.M.** 2020. A Cost Reduced Variant of Epi-Genotyping by Sequencing for studying DNA methylation in Non-model Organisms. *Front. Plant Sci.* May 2020, Volume 11, Article 694. **IF (2020): 5.574; D1; 19 citations.**

C.2. Congress, indicating the modality of their participation

I have participated as speaker in top **International and National Conferences** in the field of Botany and Bryology (IBC, IAB, OPTIMA, INTERNATIONAL SYMPOSIUM ON MOLECULAR SYSTEMATICS OF BRYOPHYTES, SIMPOSIO DE BOTÁNICA CRIPTOGÁMICA) with 8 invited conferences (IC), 96 oral presentations **(OP)**, and 40 poster presentations **(PP).** From these, some selected IC and OP are:

1. **Ros, R.M.** Utilización de cultivos en Briología. IX Simposio Nacional de Botánica Criptogámica. Salamanca (Spain). 1991. National. **IC.**
2. **Ros, R.M.,** Guerra, J. & Casas, C. Bryological Advances in Spain. VII OPTIMA Meeting. Borowetz (Bulgaria). 1993. International. **IC.**
3. **Ros R.M**. & Werner O. Phylogenetic relationships of the Trichostomoideae (Pottiaceae, Musci) based on nrITS sequences. Bryophylogeny 2004: Second International Symposium on Molecular Systematics of Bryophytes. Göttingen (Germany). International. **IC.**
4. **Ros R.M**. Advances in the Mediterranean bryology according to molecular data: present and future. XII OPTIMA Meeting. Pisa (Italy). 2007. International. **IC.**
5. Werner O. & **Ros R.M**. Lazarus species or hybrid: the case of *Tortula mucronifolia* (Pottiaceae, Musci). Systematics 2008, 10th Annual Meeting of the Gessellschaft für Biologische Systematik and 18th International Symposium "Biodiversity and Evolutionary Biology" of the German Botanical Society. Göttingen (Germany). International. **OP.**
6. Pisa S., Werner O. & **Ros R.M.** Evidence for hybridization and long-distance dispersal in the *Bryum argenteum* complex. MOSS 2011. Freiburg (Germany). International. **OP.**
7. Werner, O., De la Cruz, E., Rams, S., Saavedra, M. & **Ros, R.M** Insights into the landscape genetics of some common mosses. XV OPTIMA Meeting. Montpellier (France). 2016. International. **IC**
8. Prudencio Á.S., Werner O. Dicenta F., **Ros R.M.** & Martínez-Gómez P. Methylation analysis of dormancy breaking in almond flower buds (*Prunus dulcis* (Mill.) D.A. Webb). 9th International Rosaceae Genomics Conference. Nanjing (China), 2018. International. **OP.**
9. Nieto-Lugilde, M., Werner, O., Carey, S.B., McDaniel, S.F. & **Ros, R.M**. Testing the evolutionary history of *Ceratodon purpureus*, the sister species *C. amazonum*, and the recombinant *C.* ×*conicus*. Bryology2019 Conference. Madrid (Spain). 2019. International. **OP.**
10. Magdy, M., Werner, O. & **Ros, R.M.** Resilient Nature of Cosmopolitan Mosses in the Mediterranean Basin: Insights into Climate-Driven Molecular Adaptation. XX International Botanical Congress. Madrid (Spain). 2024. International. **OP.**

C.3. Research projects

As principal investigator (PI), I have secured about **1,021,625 €** among national and international funding bodies. **As named investigator**, my research has contributed to the development of funding applications (about **449,267.3 €**). The most relevant are:

1. FULLBRIGHT 2000. Disjunct taxa between southern Europe and the western United States. Ministerio de Asuntos Exteriores. Comisión de Intercambio Cultural, Educativo y Científico entre España y los Estados Unidos de América. Comisión Fullbright. **PI: Rosa María Ros Espín**; 01/06/2000-31/05/2001. Funding received: ~30,000 €.

2. BOS2001-0276. Taxonomic and phylogenetic studies in the genus *Weissia* as a model for the study of the evolution of cleistocarpic mosses in the Pottiaceae family. Ministerio de Ciencia y Tecnología, DGI, Spain, "Ayudas para la realización de proyectos de I+D en el marco de algunos Programas Nacionales del Plan Nacional de Investigación Científica, Desarrollo e Innovación Tecnológica 2000-2003". **PI: Rosa María Ros Espín**; 01/01/2003-31/12/2006. Funding received: 44,165.37 €.
3. CGL2005-00028. Biogeography and evolutionary processes in Bryophytes. Studies in the Macaronesian Islands. Ministerio de Educación y Ciencia. DGI. "Convocatoria de ayudas a proyectos de I+D". **PI: Rosa María Ros Espín**; 31/12/2005-30/12/2008. Funding received: 59.976 €.
4. CGL2008-00275/BOS. Effects of climate change on the bryophytes of the Mediterranean high mountains. Ministerio de Ciencia e Innovación, Spain, "Convocatoria de ayudas a proyectos de I+D 2008". **PI: Rosa María Ros Espín**; 01/01/2009-31/12/2011. Funding received: 140,118 €.
5. CGL2011-22936. The bryophytes as a model for the study of climate change. Ministerio de Ciencia e Innovación, Spain, "Ayudas para la realización de proyectos de investigación, Subprograma de proyectos de investigación fundamental no orientada. Convocatoria 2011". **PI: Rosa María Ros Espín**; 01/01/2012-31/12/2014. Funding received: 148,830 €.
6. CGL2014-52579-R. Molecular adaptation in bryophytes: studies in the moss *Funaria hygrometrica* in different climatic conditions by means of new generation sequencing techniques. Ministerio de Economía y Competitividad, AEI, Spain, "Convocatoria 2014, Modalidad 1: Proyectos de I+D+I, del Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad". **PI: Rosa María Ros Espín**; 01/01/2015-31/12/2018. Funding received: 142,780 €.
7. 19308/PI/14. Comparative studies of genetics, epigenetics and degree of ploidy in populations of the cosmopolitan moss *Funaria hygrometrica.* Fundación Séneca, Research Coordination Center, Region of Murcia, Spain, "Ayudas a la realización de proyectos de investigación destinadas a grupos competitivos". **PI: Rosa María Ros Espín**; 01/07/2015-15/06/2018. Funding received: 30,330 €.
8. 20785/PI/18. Study of heterozygosity and frequency of self-fertilization in mosses. Fundación Séneca, Research Coordination Center, Autonomous Region of Murcia, "Ayudas a la realización de proyectos para el Desarrollo de Investigación Científica y Técnica por Grupos Competitivos 2018". **PI: Rosa María Ros Espín**; 31/04/2019-30/03/2022. Funding received: 31,443 €.
9. PID2019-106091GB-I00. Speciation and hybridization in bryophytes: genome, epigenome and biogeography in the model genus *Ceratodon*. Ministerio de Ciencia, Innovación y Universidades, AEI, Spain, "Proyectos I+D+i 2019". **PIs: Rosa María Ros Espín** & Jesús Muñoz Fuente (Real Jardín Botánico de Madrid); 01/06/2020-29/02/2024. Funding received: 143,990 €.
10. FONDOCYT 2020. Use of new generation molecular techniques for strategic purposes in the Dominican Republic. Ministerio de Educación Superior, Ciencia y Tecnología de la República Dominicana, Fondo Nacional de Innovación y Desarrollo Científico y Tecnológico. PI: Agripina Ramírez Sánchez (UASD). 01/01/2021-31/05/2025. Funding received: 171,442.91 €.
11. PID2023-146996NB-I00. Hybridization in mosses: genomic-level analysis in two model families. Ministerio de Ciencia, Innovación y Universidades, AEI, Spain, "Proyectos I+D+i 2023. **PIs: Rosa María Ros Espín** & Jesús Muñoz Fuente (Real Jardín Botánico de Madrid); 01/09/2024-31/12/2027. Funding received: 146,250 €.

C.4. Contracts, technological or transfer merits

My research has led to valuable technologies of interest to both private and public entities. I have been PI of **10** contracts for a total amount of 119,000 €, being the most relevant the following:

1. Technical assistance for the study of the genetic characterization of various endangered species and its application to the genetic recovery program of Garajonay National Park. Spanish Ministry of Environment, Autonomous Agency National Parks, Garajonay National Park; 30/09/2005-01/04/2006. Amount: 29,900 €.
2. Parameters of the population genetics of the Tallante chick (*Astragalus nitidiflorus*). Entity: Universidad Politécnica de Cartagena; 24/07/2015-4/07/2016. Amount: 21,175 €.
3. Parameters of population genetics of *Cistus heterophyllus* subsp. *carthaginensis.* Entity: Universidad Politécnica de Cartagena; 19/02/2019-20/12/2019. Amount: 14,900 €.
4. Genetic characterization study of *Echium acanthocarpum* populations and its implications for its conservation in the Garajonay National Park. Entity: Gobierno de Canarias, Parque Nacional de Garajonay; 15/05/2021-15/11/2021. Amount: 8,916.66 €.

Parte A. DATOS PERSONALES

Fecha del CVA	20/08/2025

Nombre y apellidos	Mª BEATRIZ PÍAS COUSO

A.1. Situación profesional actual

Organismo	Universidad Complutense de Madrid		
Dpto./Centro	Biolodiversidad, Ecología y Evolución / Facultad de Ciencias Biológicas		
Categoría profesional	Profesora Titular de Universidad	Fecha inicio	2021
Espec. cód. UNESCO	24173		
Palabras clave	Biología Vegetal, Interacciones planta-animal, Cambio Global		

A.2. Formación académica *(título, institución, fecha)*

Licenciatura/Grado/Doctorado	Universidad	Año
Licenciatura en Ciencias Biológicas	Universidad de Santiago de Compostela	1997
Doctorado en Ciencias Biológicas	Universidad de Santiago de Compostela	2005

A.3. Indicadores generales de calidad de la producción científica

Número de tesis doctorales dirigidas en los últimos 10 años: 2
Número de publicaciones en revistas SCI: 30 aceptadas.
Citas totales: 631 (Web of Science)
Promedio de citas/año durante los últimos 5 años: 27.43 citas/año
Índice h: 13 (Web of Science);

Como resultado de la actividad científica tengo reconocidos 3 sexenios de investigación.

Parte B. RESUMEN LIBRE DEL CURRÍCULUM

1. *ACTIVIDAD INVESTIGADORA:*

Mi actividad investigadora inicialmente se centra en el estudio de la biología de la reproducción de las plantas y en el análisis de las interacciones planta-animal, con especial énfasis en los procesos de polinización y dispersión de semillas. Me incorporo a la investigación en el departamento de Botánica de la Universidad de Santiago de Compostela integrándome en el grupo de investigación: “Biología evolutiva de plantas”. Allí realicé mi tesina, trabajo con el que obtuve la calificación de sobresaliente y la suficiencia investigadora en el año 2000. En 2005 obtuve el título de Doctor en Biología Vegetal. Posteriormente, durante los años 2005 a 2007 participé como becaria de investigación en varios proyectos en las Universidades Politécnica de Madrid y Rey Juan Carlos. Entre 2007 y 2010, obtuve un contrato postdoctoral del programa I3P cofinanciado por el CSIC y el Fondo Social Europeo (CSIC-CCMA). En esta etapa me integro en dos grupos de investigación: “Grupo de investigación de alto rendimiento en Ecología de Comunidades: COMUNNITY” (Universidad Rey Juan Carlos) y “Ecología y Cambio Global” (CSIC-CCMA). En estos grupos colaboro con numerosos investigadores. A lo largo de mi trayectoria investigadora he publicado 26 artículos científicos. 21 de ellos en publicaciones indexadas, ocho de las cuales se encuentran situadas en el primer tercio. También he presentado 21 comunicaciones a congresos, tanto nacionales como internacionales. He participado en 15 proyectos de investigación, todos ellos competitivos, de convocatorias nacionales e internacionales. Además, he sido investigadora principal de un proyecto competitivo de la Junta de Castilla la Mancha. Durante el periodo investigador he disfrutado de siete becas también competitivas que me han permitido colaborar y formarme en grupos de reconocido

prestigio. He realizado estancias en centros extranjeros y nacionales (Universidad de Lovaina – Bélgica, IMEDEA (UIB-CSIC) – España). Durante este periodo además he formado parte y participado activamente en dos redes de trabajo, una de ellas nacional (REMEDINAL) y la otra de ellas europea y de excelencia (ALTERNET). En la actualidad sigo desarrollando mi carrera investigadora formado parte de dos equipos de investigación de la UCM: "Ecología Evolutiva de Plantas y Restauración Ecológica" y "Conservación, Biogeografía y Evolución de plantas vasculares y sus comunidades". Ambos del departamento de Biodiversidad, Ecología y Evolución de la UCM. Al mismo tiempo sigo manteniendo una colaboración estrecha con la Universidad Rey Juan Carlos, formando parte del grupo de investigación "COMUNNITY". De esta colaboración ha resultado la dirección de dos tesis doctorales ya concluidas.

LINEAS DE INVESTIGACIÓN
Mi investigación está principalmente enfocada al estudio de la biología evolutiva de plantas. Me centro especialmente en las interacciones entre especies, en estudiar cómo sobreviven y prosperan en su medio natural las plantas mediterráneas, y cuáles son los mecanismos responsables de la aclimatación y adaptación a condiciones ambientales extremas.

2. *ACTIVIDAD DOCENTE Y PROFESIONAL:*

He impartido más de 2000 horas de docencia a lo largo de más de 15 años de experiencia docente, en la Universidad de Santiago de Compostela (Facultad de Ciencias Biológicas, Departamento de Biología Vegetal I) y en la Universidad Complutense de Madrid (Facultad de Ciencias Biológicas, Departamento de Biología Vegetal I – actualmente Departamento de Biodiversidad, Ecología y Evolución).
Mi experiencia docente se inicia durante la etapa como becaria predoctoral FPI impartiendo 23 créditos prácticos en la Universidad de Santiago de Compostela.
Desde el año 2010 al 2017 he impartido un total de 140 créditos como Titular Interina en la Universidad Complutense de Madrid (1396 horas en total).
Desde el año 2017 he impartido más de 70 créditos como Contratada Doctora Interina, Contratada Doctora y Titular en la Universidad Complutense de Madrid.

He dirigido 3 Trabajos de Fin de Máster y un Trabajo de Fin de Grado, y he participado en cuatro proyectos de innovación docente y uno de Aprendizaje-Servicio.
Experiencia en Gestión:
Entre 2018 y 2022 desempeñé el cargo de Vicedecana de Estudiantes y Proyección Profesional en la Facultad de Ciencias Biológicas de la Universidad Complutense de Madrid.
Desde 2023 hasta la actualidad ejerzo como coordinadora de la Unidad Docente de Botánica en la misma institución.

Parte C. MÉRITOS MÁS RELEVANTES *(en los últimos 10 años)*

C.1. Publicaciones

1. Marina Ramos-Muñoz, Mario Blanco-Sánchez, **Beatriz Pías**, José Alberto Ramírez-Valiente, Raquel Benavides, Adrián Escudero, Silvia Matesanz (2025) Interactive Effects of Warming and Competition Do Not Limit the Adaptive Plastic Response to Drought in Populations of a Mediterranean Plant Global Change Biology 31 (7) 70363.

2. Andrea Villanueva Raisman, Rut Sánchez de Dios, Felipe Domínguez Lozano, Irene Villa-Machío, **Beatriz Pías**, Llorenç Sáez, Mario Fernández-Mazuecos, Mario Mairal (2025) .Population genomics and taxonomy solve a conservation conundrum in the

Balearic paleoendemic Femeniasia baleárica. Perspectives in Plant Ecology, Evolution and Systematics, 125888

3. Angela Illuminati, Silvia Matesanz, **Beatriz Pías**, Ana M Sánchez, Marcelino De la Cruz, Marina Ramos-Muñoz, Jesús López-Angulo, David S Pescador, Adrián Escudero (2025).Functional differences between herbs and woody species in a semiarid Mediterranean plant community: A whole-plant perspective on growth, nutrient-use and size Functional Ecology 39 (1), 38-50

4. Marina Ramos-Muñoz, María Clara Castellanos, Mario Blanco-Sánchez, **Beatriz Pías**, José Alberto Ramírez-Valiente, Raquel Benavides, Adrián Escudero, Silvia Matesanz.(2024) Drivers of phenotypic variation and plasticity to drought in populations of a Mediterranean shrub along an environmental gradient. Environmental and Experimental Botany 228, 106011

5. Marina Ramos-Muñoz, Mario Blanco-Sánchez, **Beatriz Pías**, Adrián Escudero, Silvia Matesanz (2024).Transgenerational plasticity to drought: contrasting patterns of non-genetic inheritance in two semi-arid Mediterranean shrubs. Annals of Botany 134 (1), 101-116

6. Mario Blanco-Sánchez, JA Ramírez-Valiente, M Ramos-Muñoz, **B. Pías**, Steven J Franks, Adrián Escudero, Silvia Matesanz. (2024) Range-wide intraspecific variation reflects past adaptation to climate in a gypsophile Mediterranean shrub. Journal of Ecology , 112 (7) 1533-1549.

7. Mario Blanco-Sánchez; Steven J. Franks; Marina Ramos-Muñoz; **Beatriz Pías**; José Alberto Ramírez-Valiente; Adrián Escudero; Silvia Matesanz (2023). Contrasting adaptative trait variation in response to drought in two Mediterranean shrubs. Environmental and Experimental Botany. DOI: 10.1016/j.envexpbot.2023.105253

8. M Blanco-Sánchez, M Ramos-Muñoz, **B Pías**, JA Ramírez-Valiente, Escudero, A., Matesanz, S. (2022). Natural selection favours drought escape and an acquisitive resource-use strategy in semi-arid Mediterranean shrubs. Functional Ecology 36 (9), 2289-2302

9. Angela Illuminati, José Ignacio Querejeta, **Beatriz Pías**, Adrián Escudero, Silvia Matesanz (2022) Coordination between water uptake depth and the leaf economic spectrum in a Mediterranean shrubland. Journal of Ecology. https://doi.org/10.1111/1365-2745.13909

10. Felipe Domínguez Lozano, Rut Sánchez de Dios, Francisco José Cabezas Fuentes, **Beatriz Pías Couso**. La flora de la ciudad de Madrid como modelo para la integración de la conservación de la biodiversidad en el diseño urbanístico. Ecosistemas (2022) Vol 31. 2182-2182.

11. Rabasa S.G., Sánchez de Dios R., Cabezas Fuentes J.F., **Pías Couso B.**, Domínguez F., (2022). Conservation strategies for endagered arable plant Euphorbia gaditana. Conservation Science and Practice. DOI:10.1111/csp2.12657

12. A. López-Angulo, J., de la Cruz, M., Chacón-Labella, J., Pescador, D., **Pías, B.**, Sánchez, A. M., Escudero, A., Matesanz, S. (2021). Larger oboveground neighbourhood scales maximise similarity but do not eliminate discrepancias with belowground plant diversity in a Mediterranean shrubland. Illuminati Plant and Soil. 1-2. 497-509.
13. Blanco-Sánchez M., Moore, M. J., Ramos Muñoz, M., **Pías, B.**, García-Fernández, A., Prieto, M., Plaza, L., Isabel, I. Escudero, A., Matesanz, S. (2021). Phylogeography of a gypsum endemic plant across its entire distribution range in the western

Mediterrranean. American Journal of Botany. American Journal of Botany, Vol. 108, Núm. 3, pp. 443-460

14. Silvia Matesanz, David S. Pescador, **Beatriz Pías**, Ana M. Sánchez, Julia Chacón-Labella, Angela Illuminati, Marcelino de la Cruz and Jesús López-Angulo. (2019) Estimating belowground plant abundance with DNA metabarcoding. Molecular Ecology Resources. https://doi.org/10.5061/dryad.dm4t39t

15. Quintanilla, L. G. and **Pías, B.** (2018). Convergence in leaf phenology traits of two understorey ferns in the northwestern Iberian Peninsula. Journal of Plant Ecology. 1:92-102.

16. Puentes, A; **Pias, B.**; Basanta, M. 2018. Vertical structure of Erica umbellata, a representative species of European Ibero-Atlantic dry heaths. Plant Biosystems. 152: 110-119.

17. Turnbull, M.H., Ogaya, B., Peñuelas, J., Zaragoza, J., Atkin , K., Valladares, F., Gimeno, T., **Pías, B.** and Griffin K.L. (2017) Light inhibition of foliar respiration in response to soil water availability and seasonal changes in temperature in Mediterranean holm oak (Quercus ilex) forest. Functional Plant Biology. https://doi.org/10.1071/FP17032.

C.2. Proyectos

Proyectos como Investigadora Principal

1. Título: “Caracterización del tamaño estructura espacial y demografía de los sabinares del P.N. del Alto Tajo”.
Entidades participantes: Universidad Rey Juan Carlos (URJC), Centro Superior de Investigaciones Científicas (CSIC)
Duración: desde: febrero 2007 hasta: diciembre 2007

Proyectos como miembro del equipo de investigación

1.Referencia: PID2021-126103NB-I00
Título: Respuesta adaptativa a la sequía: Efectos de estreses simultáneos en la plasticidad fenotípica, la selección y el potencial evolutivo (AMS3)
Entidades participantes: URJC-UCM
Entidad financiadora: Agencia estatal de investigación.
Duración : 2022-2026
Investigador principal: Matesanz García Silvia

2. Referencia: CGL2016-75566-G
Título: Plasticidad fenotípica y selección natural en plantas especialistas de yesos: del genotipo al fenotipo en un contexto de cambio global (GYPSEVOL)
Entidades participantes: URJC-UCM
Entidad financiadora: Ministerio de Economía y Competitividad.
Duración : 2016-2020
Investigador principal: Matesanz García Silvia

2. Referencia: CGL2015-66809-P
Título: Raizes: integrando las interacciones subterráneas para avanzar a una teoría unificadora de coexistencia de plantas. ROOTS
Entidades participantes: URJC
Entidad financiadora: Ministerio de Economía y Competitividad
Duración : 2016-2019
Investigador principal: Adrián Escudero Alcántara

3. Referencia: CGL2012-38427

Título: Reglas ecológicas de ensamblaje en comunidades de plantas de alta montaña: una aproximación espacial multiescalar. MOUNTAINS
Entidades participantes: URJC
Entidad financiadora: Ministerio de Economía y Competitividad
Duración : 2013-2016
Investigador principal: Adrián Escudero Alcántara

4. Referencia: CGL2009-13190
Título: Effects of spatial structure changes on the composition and structure of habitat island communities (ISLANDS)
Entidades participantes: URJC-CSIC-UVA-UPM
Entidad financiadora: Ministerio de Ciencia e innovación
Duración : 2010-2013
Investigador principal: Adrián Escudero Alcántara

5. Título: “Interacciones entre plantas y funcionamiento de ecosistemas extremos sometidos al cambio global: entendiendo su estructura y dinámica para conservar su biodiversidad”
Entidades participantes: URJC.
Entidad financiadora: Fundación BBVA
Duración, desde julio 2007 hasta: 30 julio 2010
Investigador Fernando Tomás Maestre Gil

6. Referencia: CGL2007-66066-C04-02/BOS.
Título: “Procesos ecofisiológicos que limitan la capacidad de especies leñosas mediterráneas de responder al cambio climático ECOCLIM.
Entidades participantes: CSIC
Entidad financiadora: Ministerio de Educación y Ciencia.
Duración : 2007-2010
Investigador principal: Fernando Valladares Ros

7. Referencia: EXTREM CGL2006-09431
Título: “Efectos del estrés abiótico en ambientes mediterráneos extremos a distintos niveles de organización: una herramienta para predecir los impactos del cambio climático”
Entidades participantes: URJC
Entidad financiadora: Ministerio de Educación y Cultura.
Duración: desde octubre 2006 hasta: octubre 2009
Investigador principal: Adrián Escudero Alcántara

C.3. Participación en contratos de I+D+i
1. Título: “Evaluación de los niveles de diversidad genética en las poblaciones de Erodium paularense localizadas en la Microreserva denominada “Cerros Volcánicos de la Miñosa”.Entidades financiadoras: Junta de comunidades de Castilla la Mancha
Entidades participantes: URJC
Convocatoria: Junta de comunidades de Castilla la Mancha
Fecha inicio: febrero 2005
Fecha finalización: abril 2005

2. Título: “Estrategia y medidas de conservación de la flora amenazada del Parque Nacional de Ordesa y Monte Perdido”
Convocatoria: contrato de consultoría de asistencia técnica Parque Nacional
Entidades participantes: Universidad Politécnica de Madrid (UPM)
Fecha inicio: febrero de 2006
Fecha finalización: junio de 2006

3. Título: “Inventario y estudio sobre el aprovechamiento de Gentiana lutea (Genciana) y otras plantas de interés económico, para los municipios de Cabrillanes, Villablino, Pacios del Sil y Murias de Paredes (León), que forman la mancomunidad “Montaña occidental”
Entidades participantes: URJC
Convocatoria: Junta de comunidades de Castilla la León

Fecha inicio: octubre 2005
Fecha finalización: diciembre 2005

4. Título: Conexión de flujos ecológicos mediante infraestructuras lineales de transporte (ECONET)
Entidades participantes: URJC-UCM
Entidad financiadora: OHL.
Duración : 2012-2015
Investigador principal: Luis Baleguer Núñez

5. Título: Contrato administrativo para la ejecución de estudio de los helechos de vaguada amenazados en Galicia.
Entidades participantes: URJC-UCM
Entidad financiadora: Fondo Europeo de desarrollo Agrícola.
Duración : 2016
Investigador principal: Luis García Quintanilla

6. Título: Contrato administrativo para la ejecución de estudio de los helechos de vaguada amenazados en Galicia II.
Entidades participantes: URJC-UCM
Entidad financiadora: Fondo Europeo de desarrollo Agrícola.
Duración : 2017
Investigador principal: Luis García Quintanilla

C.5. SUPERVISION DE ESTUDIANTES

Trabajos dirigidos

1. *La respuesta fisiológica a la sequía y al frío en plántulas de Quercus ilex de poblaciones contrastadas no apoya la adaptación local*. Teresa Efigenia Gimeno Chocarro. Proyecto fin de Máster. Máster en Ciencia y Tecnología Ambiental. Fecha de lectura: julio de 2008.

2. *Tamaño de mancha y regenerado en Quercus coccifera L. en relación a una infraestructura lineal*. Francisco Javier Mingueza. Fecha de lectura: septiembre de 2013.

3. Identificación de bio-indicadores en la restauración del hábitat prioritario Estepas Salinas Mediterráneas (1510). Emilio Payo-García. Proyecto fin de máster. Máster en Biología de la conservación. Universidad Complutense de Madrid. Septiembre 2016.

4. Evaluación de la situación actual de la infraestructura verde en la Comunidad de Madrid. Marcos Adame. Proyecto fin de máster. Máster en Biología de la conservación. Universidad Complutense de Madrid. Noviembre 2016

Tesis doctorales dirigidas

1. Conservación de especies e interacciones ecológicas en un ambiente de cambio global: implicaciones para la restauración. Gema Escribano Ávila. Calificación de Sobresaliente “Cum Laude” y mención de doctorado europeo. Fecha de lectura: diciembre de 2013.

2. Adaptive phenotypic variation in a Mediterranean shrub: causes and consequences under realistic climate change environments. Marina Ramos Muñoz. Calificación Sobresaliente “Cum Laude” y mención de doctorado europeo. Fecha de lectura: Junio 2025.

MINISTERIO DE CIENCIA E INNOVACIÓN

Cofinanciado por la Unión Europea

AGENCIA ESTATAL DE INVESTIGACIÓN

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	Martínez-Abaigar		
Family name	Javier		
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]		
e-mail	javier.martinez@unirioja.es	[redacted]	
Open Researcher and Contributor ID (ORCID)		0000-0002-9762-9862	
Number of research periods ("sexenios") and period		6 (1989-2024)	

A.1. Current position

Position	University Professor (Catedrático de Universidad)		
Initial date	10-06-2009		
Institution	Universidad de La Rioja		
Department/Center	Faculty of Science and Technology		
Country	Spain	[redacted]	[redacted]
Key words	Bryophytes, Grapevine, UV radiation, Ecophysiology, Biomonitoring, Genomics, Climate change		

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

Period	Position/Institution/Country/Interruption cause
01-10-1985/30-09-1988	Assistant Teacher. University of Navarra. Spain
01-01-1985/31-12-1987	Research fellow. University of Navarra. Spain
01-10-1988/30-09-1989	Associate Teacher. University of Zaragoza. Spain
01-10-1989/19-08-1991	Temporary TEU. University of Zaragoza. Spain
20-08-1991/25-08-1996	TEU. Universities of Zaragoza and La Rioja. Spain
26-08-1996/09-06-2009	TU. University of La Rioja. Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licenciado with Grade	University of Navarra, Spain	1984
Doctor in Sciences (Biology)	University of Navarra, Spain	1989

(Include all the necessary rows)

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

The main research topic of my group is the binomial UV and photosynthetic organisms in its widest perspective, regarding: 1) the organisms studied, from cyanobacteria to seed plants (including crops), but with an important specialization in bryophytes as evolutionarily key plants in land colonization; 2) the effects evaluated, from molecular biology to ecophysiology; 3) the environments explored, from lowly to extremely UV-exposed habitats; etc. This is in order to have a complete picture of the interaction between plants, UV, and the related Antarctic "ozone hole" (I have had some research

opportunity in this regard during my recent stay in Antarctica within the XXXV Spanish campaign in 2022). Some of my main scientific achievements, shown in papers, projects, meetings, etc., are:

1. Bryophytes respond to UV radiation under both controlled and field conditions and, in this second case, in the spatial and temporal scales
2. Cell compartmentation of UV-absorbing compounds, and particularly the differentiation of vacuolar and cell wall-bound compounds, is essential to understand the different response mechanisms of mosses and liverworts to UV radiation, which could have influenced their ecological segregation upon land colonization by embryophytes.
3. The phenolic UV-absorbing compounds specifically responding to UV-B (such as *p*-coumaroylmalic acid) are particularly useful for current and past UV biomonitoring.
4. The specific UV-B photoreceptor UVR8 is highly conserved in plant evolution, but its action mechanism in mosses and liverworts show certain peculiarities in comparison to angiosperms.

Other relevant findings are related with UV effects on grapevine, from molecular biology to viticulture and oenology, and with the use of bryophytes as biomonitors of air quality (mainly heavy metals and PAHs), in a context of global change and increasing social concern on the environment. In this regard, our group has carried out diverse knowledge transfer contracts with the Government of La Rioja to develop a regional biomonitoring network. I also participated in the design of a new device for pollution biomonitoring (Mossphere) within an European project with universities and companies (Mossclone) and a patent, that has been used in different studies and has potential to be included in environmental regulations. Overall, our research has almost uninterruptedly been funded by the R+D+i National Plan since 1995 (I have mainly acted as Principal Investigator in nine projects of this kind), in combination with international and regional projects, as well as technology transfer contracts.

The research of our group shows an increasing internationalization at all levels: projects, stays, joint papers, the International Mention of our last supervised Theses (three in the last 10 years), examination of international theses, invited collaborations in international books, invited talks in international meetings, etc. I am (or have been) also involved in several world-wide initiatives, such as the invited participation in the last three papers advising the Montreal Protocol parties on the environmental effects of stratospheric ozone depletion and UV radiation (see Barnes et al. 2023). These papers are elaborated under the auspice of the United Nations Environmental Program and the UN Ozone Secretariat, and I am the only Spanish researcher selected for this task. In addition, I have been a co-author of a recent bryological seminal paper (see Patiño et al. 2022) where we have identified the 50 most outstanding challenges and future perspectives in bryology.

I have also participated in science management activities as a directive member in scientific societies (the International Association of Bryologists and the UV4Plants Scientific Society, and I am also an ex-President of the Spanish Bryological Society), as a member of the Assessing Committee 5 in two "sexenios" calls (2020 and 2021; I myself have six sexenios in the period 1989-2024), evaluator of research projects for national and international agencies, etc.

I can define myself as a generalist plant biologist, with some expertise in botany, physiology and ecology. I have also some communication skills and thus I receive regular invitations for dissemination activities at all levels. This has increased since my Antarctic stay (see a recent talk in https://www.youtube.com/watch?v=J0ixLmNc1fY). I also gave the opening lecture of the year 2020 (the pandemic year) at University of La Rioja (https://www.youtube.com/watch?v=yrix8lcpzN0), publishing at the same time a dissemination book on mosses (free at https://dialnet.unirioja.es/servlet/libro?codigo=776538). Science dissemination is a fascinating and relevant task to promote new vocations, to improve the links between scientists and citizens, and to increase the local and global environmental consciousness-raising.

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications

S Neugart, V Steininger, C Fernandes, **J Martínez-Abaigar**, E Núñez-Olivera, et al. 2024. A synchronized, large-scale field experiment using Arabidopsis thaliana reveals the significance of the UV-B photoreceptor UVR8 under natural conditions. Plant, Cell & Environment 47: 4031–4047 (2024

PW Barnes, TM Robson, RG Zepp, JF Bornman, MAK Jansen, R Ossola, QW Wang, SA Robinson, B Foereid, AR Klekociuk, **J Martinez-Abaigar**, WC Hou, R Mackenzie, ND Paul. 2023. Interactive effects of changes in UV radiation and climate on terrestrial ecosystems, biogeochemical cycles, and feedbacks to the climate system. Photochemical and Photobiological Sciences 22: 1049–1091.

R Hidalgo-Sanz, MÁ Del-Castillo-Alonso, L Monforte, R Tomás-Las-Heras, S Sanz, C Olarte, P Pérez-Matute, M Íñiguez-Martínez, A-L Ene, **J Martínez-Abaigar**, E Núñez-Olivera. 2023. Ultraviolet-B radiation, mushrooms, and vitamin D: From technology to bioavailability. LWT – Food Science and Technology 186: 115210.

J Martínez-Abaigar & E Núñez-Olivera. 2022. Bryophyte ultraviolet-omics: from genes to the environment. Journal of Experimental Botany 73: 4412–4426.

J Patiño, I Bisang, B Goffinet… A Vanderpoorten (AC: J Patiño) (22/32). 2022. Unveiling the nature of a miniature world: a horizon scan of fundamental questions in bryology. Journal of Bryology 44: 1-34.

J Martínez-Abaigar & E Núñez-Olivera. 2021. Novel biotechnological substances from bryophytes. In: RP Sinha & DP Häder (eds.), Natural Bioactive Compounds: Technological Advancements. Elsevier – Academic Press, pp. 233-248. ISBN 978-0-12-820655-3.

G Soriano, MA Del-Castillo-Alonso, L Monforte, E Núñez-Olivera & **J Martínez-Abaigar**. 2019. Acclimation of bryophytes to sun conditions, in comparison to shade conditions, is influenced by both photosynthetic and ultraviolet radiations. Frontiers in Plant Science 10: 998.

G Soriano, C Cloix, M Heilmann, E Nuñez-Olivera, **J Martinez-Abaigar** & GI Jenkins. 2018. Evolutionary conservation of structure and function of the UVR8 photoreceptor from the liverwort *Marchantia polymorpha* and the moss *Physcomitrella patens*. New Phytologist 217: 151–162.

L Monforte, G Soriano, E Núñez-Olivera & **J Martínez-Abaigar**. 2018. Cell compartmentation of ultraviolet-absorbing compounds: an underexplored tool related to bryophyte ecology, phylogeny and evolution. Functional Ecology 32: 882-893.

MT Boquete, JA Fernández, JR Aboal, A Carballeira, **J Martínez-Abaigar**, R Tomás-Las-Heras & E Núñez-Olivera. 2016. Trace element concentrations in the moss *Hypnum cupressiforme* growing in a presumably unpolluted area. Chemosphere 158: 177-183.

L Monforte, E Núñez-Olivera & **J Martínez-Abaigar**. 2015. UV radiation biomonitoring using cell compartmentation of UV-absorbing compounds in herbarium samples of a liverwort. Ecological Indicators 52: 48-56.

L Monforte, R Tomás-Las-Heras, MA Del-Castillo-Alonso, **J Martínez-Abaigar** & E Núñez-Olivera. 2015. Spatial variability of ultraviolet-absorbing compounds in an aquatic liverwort and their usefulness as biomarkers of current and past UV radiation: a case study in the Atlantic-Mediterranean transition. Science of the Total Environment 518-519: 248-257.

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

In the last 10 years, 10 invited talks, 6 chairs of session, 3 memberships of scientific committees, 1 organized symposium ("Responses of non-flowering plants to UV radiation" in the 19th Congress of the European Society for Photobiology), and around 40 oral or poster communications, in international meetings on UV radiation, photobiology, bryology, cryptogamic botany, plant physiology, viticulture-oenology, etc.

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

PID2023-150695NB-I00 (Towards a more efficient Montreal Protocol: developing tools for a plant-based global UV-B biomonitoring network, UVBiomonitor). Spanish Ministry of Science, Innovation and Universities - EFRD (R+D+i Spanish National Plan). Principal investigators: E. Núñez-Olivera & **J. Martínez-Abaigar** (Universidad de La Rioja). From 01-09-2024 to 31-08-2027. 136,000 € (+ 34,000 € Indirect Costs). Type of participation: **PI.**

PGC2018-093824-B-C42 (Ecophysiological and evolutionary Roots of thE MultIple stress Tolerance in plAnts, EREMITA). Spanish Ministry of Science, Innovation and Universities - EFRD (R+D+i Spanish National Plan). Principal investigators: E. Núñez-Olivera & **J. Martínez-Abaigar** (Universidad de La Rioja). From 01-01-2019 to 31-12-2022. 140,000 € (+ 29,400 € Indirect Costs). Type of participation: **PI.**

CGL2014-54127-P (UV radiation and diversification in land colonization: an evolutionary, genomic, functional and ecophysiological perspective in bryophytes). Spanish Ministry of Economy and Competitiveness – EFRD (R+D+i Spanish National Plan). Principal investigators: **J. Martínez-Abaigar** & E. Núñez-Olivera (Universidad de La Rioja). From 01-01-2015 to 31-12-2018. 105,000 € (+ 22,050 € Indirect Costs). Type of participation: **PI.**

Mossclone (Creating and testing for controlling the air quality based on a new biotechnological tool. Use of a devitalized moss clone as passive contaminant sensor). European Union (FP7, Program Eco-Innovations). Principal investigator: J.Á. Fernández-Escribano (Universidad de Santiago de Compostela). From 01-01-2012 to 31-12-2014. 3,5 M€. Type of participation: member of Advisory Board.

CGL2011-26977 (Generalization of the use of hydroxycinnamic acids as biomonitors of UV radiation in bryophytes). Spanish Ministry of Science and Innovation - EFRD (R+D+i Spanish National Plan). Principal investigator: **J. Martínez-Abaigar** (Universidad de La Rioja). From 01-01-2012 to 31-12-2014. 70,000 € (+ 14,700 € Indirect Costs). Type of participation: **PI.**

COST Action FA0906 (UV-B radiation: a specific regulator of plant growth and food quality in a changing climate). European Union (RTD Framework Programme). Principal investigator: Marcel Jansen (University College Cork, Ireland). From 01-06-2010 to 31-05-2014. 400,000 €. Type of participation: researcher and member of the Management Committee representing Spain.

C.4. Contracts, technological or transfer merits, Include patents and other industrial or intellectual property activities (contracts, licenses, agreements, etc.) in which you have collaborated. Indicate: a) the order of signature of authors; b) reference; c) title; d) priority countries; e) date; f) Entity and companies that exploit the patent or similar information, if any.

1. BIOD2 2018-I-IDD-00027 (Production of vitamin D from mushrooms using UV-B radiation. Pilote plant). Agency for Economic Development of La Rioja (ADER). Government of La Rioja. From: 17-11-2019 to 02-10-2022. Principal investigator: E. Núñez-Olivera (Universidad de La Rioja). 150,069 €. Type of participation: researcher.

2. Carachterization and analysis in the Air Quality Biomonitoring Autonomous Network of La Rioja (period 2018-2019). Government of La Rioja. Principal Investigator: **J. Martínez Abaigar** (Universidad de La Rioja). From 31-08-2018 to 28-02-2020. 44,837 €. Type of participation: **PI.**

3. Research on heavy metal pollution biomonitoring in the metropolitan area of Logroño (La Rioja). Government of La Rioja. Principal Investigator: **J. Martínez Abaigar** (Universidad de La Rioja). From 09-01-2018 to 09-09-2018. 41,000 €. Type of participation: **PI.**

3. Demonstrative ecological culture of blueberry in containers in Villanueva de Cameros (La Rioja). Private funding (Ana del Castillo Company). Principal investigator: E. Núñez-Olivera (Universidad de La Rioja). From 17-07-2017 to 30-09-2021. 27,832 €. Type of participation: researcher.

4. Carachterization and analysis in the Air Quality Biomonitoring Autonomous Network of La Rioja (period 2016-2017). Government of La Rioja. Principal Investigator: **J. Martínez Abaigar** (Universidad de La Rioja). From 11-05-2016 to 10-01-2018. 40,000 €. Type of participation: **PI.**
5. Carachterization and analysis in the Heavy Metals Biomonitoring Autonomous Network of La Rioja (period 2014-2015). Government of La Rioja. Principal Investigator: **J. Martínez Abaigar** (Universidad de La Rioja). From 25-04-2014 to 15-12-2015. 32,313 €. Type of participation: **PI**.
6. Patent: Reski R, **Martínez Abaigar J (5%)** (for a total of 22 researchers). Passive contaminant sensor device. (EP15161733.9). 2015. Holder: Albert Ludwig's University Freiburg (Germany). Countries: Europe.

Fecha del CVA	30/09/2025

Parte A. DATOS PERSONALES

Nombre	Gregorio		
Apellidos	Aragón Rubio		
Sexo	Hombre		
Dirección Email	gregorio.aragon@urjc.es		
Open Researcher and Contributor ID (ORCID)	0000-0003-3349-5153		

RESUMEN NARRATIVO DEL CURRÍCULUM

Soy Catedrático de Botánica en la Universidad Rey Juan Carlos con 4 quinquenios y 4 periodos de investigación reconocidos. Mis líneas de investigación están relacionadas con la ecología de las comunidades epífitas (líquenes y briófitos), dinámica de las poblaciones, indicadores de diversidad y conservación de especies. Casi toda mi experiencia ha sido dirigida a conocer los factores que determinan la generación y pérdida de biodiversidad, muy relacionados con la fragmentación y usos del suelo.

Durante estos años, he colaborado activamente con investigadores Ecuador, Chile, Cuba, Italia, Austria, Portugal, Reino Unido, UK, Suecia, etc. También he participo en varias redes de investigación financiadas por diferentes instituciones: REMEDINAL, que se enfoca en temas de restauración y biodiversidad o ESEFUNLICH-URJC un grupo de investigación de alto rendimiento en Ecología, Sistemática y Evolución de Hongos y Líquenes de la Universidad Rey Juan Carlos. He participado como investigador en 37 proyectos competitivos financiados por importantes entidades como el Ministerio de Economía y Competitividad de España, Ministerio de Educación, Ministerio de Medio Ambiente, Comunidad de Castilla-La Mancha, Fundación Biodiversidad, Unión Europea, etc. Además, también he sido el investigador responsable de 7 contratos no competitivos (OAPN, JCCLM). Como indicadores de mi productividad científica he publicado 150 artículos, muchos de ellos en revistas científicas del SCI (Nature, Ecology & Evolution, Ecology Letters, Journal of Ecology, Journal of Vegetation Science, Ecology, Science of the Total Environment, Ecological Indicators, entre otras.). También he escrito varios libros. Por otro lado, he presentado más de 80 contribuciones a congresos nacionales o internacionales. Además, he co-dirigido 10 Tesis Doctorales, 12 trabajos fin de máster y más de 50 trabajos fin de grado o fin de carrera.

En relación con la difusión de la ciencia, he colaborado con las diferentes administraciones públicas en la transferencia de conocimiento a través de informes, paneles informativos, conferencias, visitas guiadas, folletos, blogs (OAPN, JCCLM, Geoparque, Parques Nacionales de Chile,…). En relación con algunas acciones, me gustaría destacar que estuve colaborando varios años con la Dirección General del Medio Natural (JCCM), en la utilización de los líquenes para el seguimiento de los diferentes tipos de bosques (más de 600 bosques) de la Red Natura 2000 (Manuales de Gestión). Además, he participado

como ponente en algunos seminarios y cursos de formación para personal técnico de los espacios protegidos para dar a conocer estos organismos y facilitar el seguimiento de los bosques a través de ellos. Actualmente estoy desarrollando un boletín de difusión denominado "Líquenes y Ecosistemas", dirigido principalmente al personal técnico de los Espacios Protegidos.

1. ACTIVIDAD INVESTIGADORA, DE TRANSFERENCIA E INTERCAMBIO DELCONOCIMIENTO

1.1. PROYECTOS Y CONTRATOS DE INVESTIGACIÓN Y TRANSFERENCIA EINTERCAMBIO DEL CONOCIMIENTO

1.1.1. Proyectos

1 Proyecto. Biodiversidad y funcionamiento ecosistémico en restauraciones forestales: un análisis a escala espacial y temporal. FUNDACIÓN BIODIVERSIDAD. Adrián Escudero. (Universidad Rey Juan Carlos). 03/07/2022-31/12/2025. 352.525,21 €.

2 Proyecto. Diversidad de interacciones bióticas y su papel en el funcionamiento ecosistémico de las restauraciones forestales. Agencia Estatal de Investigación. Ana Isabel García-Cervigón. (Universidad Rey Juan Carlos). 01/12/2022-31/07/2025. 255.300 €.

3 Proyecto. A global initiative to understand gypsum ecosystem ecology (H2020-MSCA-RISE-2017). (Universidad Rey Juan Carlos). 01/01/2018-31/12/2021.

4 Proyecto. Cambio global e impactos sobre los ecosistemas (CAMGLO). Universidad Rey Juan Carlos. Fernado Tomás Maestre Gil. (Universidad Rey Juan Carlos). 01/01/201431/12/2020. 3.000 €.

5 Proyecto. Reglas ecológicas de ensamblaje de comunidades epífitas: una visión desde el Hemisferio Sur. Ministerio de Economía y Cmpetitividad. (Universidad Rey Juan Carlos). 30/12/2016-29/12/2020. 199.650 €.

6 Proyecto. Restauración y conservación de los ecosistemas mediterráneos: respuesta frente al cambio global. REMEDINAL 3. Consejería de Educación de la Comunidad de Madrid. Adrián Escudero Alcántara. (Universidad Rey Juan Carlos). 01/10/201430/09/2018. 266.573 €.

7 Proyecto. Incidencia de algunos motores de cambio global sobre organismos epífitos: desde poblaciones a comunidades en múltiples escalas espaciales. Ministerio de Ciencia e Innovación. Isabel Martínez Moreno. (Universidad Rey Juan Carlos). 01/01/201431/12/2016. 128.260 €.

1.2. RESULTADOS Y DIFUSIÓN DE LA ACTIVIDAD INVESTIGADORA Y DE TRANSFERENCIA E INTERCAMBIO DE CONOCIMIENTO

1.2.1. Actividad investigadora

AC: Autor de correspondencia; (n° x / n° y): posición firma solicitante / total autores. Si aplica, indique el número de citaciones

1 Artículo científico. (1/4) Gregorio Aragón Rubio (AC); Isabel Martínez; Marcelino de la Cruz; Pilar Hurtado. 2025. High Host Preferences in Epiphytic Lichens Across Diverse Phorophyte Species in the Mediterranean Region. Journal of Fungi.

2 Artículo científico. (1/4) Gregorio Aragón Rubio (AC); Gil Fernando Giménez; Valerie Negrón; Marta Rincón. 2025. Unveiling lichen diversity on volcanic substrates: A comparative study across mainland Spain. Journal of Arid Environment. 105455, pp.105455.
3 Artículo científico. Sergio Muriel; (2/4) Gregorio Aragón Rubio; Isabel Martínez; María Prieto. 2024. Do gypsophile lichens exist? Analysis of the affinity for the gypsum substrate of lichen species from Spain. Journal of Arid Environments. 224, pp.105216.
4 Artículo científico. Pilar Hurtado; (2/6) Gregorio Aragón Rubio; Marina Vicente; Bo Dalsgaard; Boris R. Krasnow; Joaquín Calatayud. 2024. Generalism in species interactions is more the consequence than the cause of ecological success. Nature Ecology & Evolution. 8, pp.1602-1611.
5 Artículo científico. Sergio Muriel; (2/4) Gregorio Aragón Rubio; Isabel Martínez; María Prieto. 2024. Gypsum lichens: A global data set of lichen species from gypsum ecosystems. Ecology. 9(8), pp.e4271.
6 Artículo científico. Clara Rodríguez; María Prieto; (3/6) Gregorio Aragón Rubio; Jesús López-Angulo; Adrián Escudero; Isabel Martínez. 2024. Specialization: A multidimensional and integrative perspective. Ecosphere. 15, pp.:e4916.
7 Artículo científico. Rebeca Arias-Real; Manuel Delgado-Baquerizo; Sergi Sabater; et al; Pilar Hurtado; (6/14) Gregorio Aragón. 2024. Unfolding the dynamics of ecosystems undergoing alternating wet-dry transitional states. Ecology Letters. 27, pp.e14488.
8 Artículo científico. Noelia Fernández; (2/5) Gregorio Aragón Rubio; María Prieto; Ángel Benítez; Isabel Martínez. 2023. Differences in epiphytic trunk communities in secondary forests and plantations of southern Ecuador. Forestry. 96, pp.20-36.
9 Artículo científico. Clara Rodríguez; Isabel Martínez; (3/6) Gregorio Aragón Rubio; Carlos Zamorano; Lohengrin Cavieres; María Prieto. 2023. Specialization patterns in symbiotic associations: A community perspective over spatial scales. Ecology and Evolution. 96, pp.e10296.
10 Artículo científico. Pilar Hurtado; (2/5) Gregorio Aragón Rubio (AC); Isabel Martínez; Heltmut Mayrhofer; María Prieto. 2023. The epiphytic lichens on Fagus sylvatica in beech forests of Europe: towards an open and dynamic checklist. Mediterranean Botany. 44, pp.e84299..

1.2.2. Transferencia e intercambio de conocimiento y actividad de carácter profesional

Actividad de carácter profesional

1 Catedrático de Universidad: Universidad Rey Juan Carlos. 2018-actual. Tiempo completo.

Explicación narrativa de la

aportación Funciones desempeñadas

docencia, gestión universitaria, investigación