

**CURRICULUM VITAE ABREVIADO (CVA)**

<b>Part A. PERSONAL INFORMATION</b>		<b>Date of CVA</b>	22/01/26
Name	Robert John WILSON	Gender	Male
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**A.1. Current position**

Position	Senior Researcher (Investigador Científico)	Initial date	15/12/2025
Institution	Museo Nacional De Ciencias Naturales (MNCN-CSIC)		
Department / Centre	Department of Biogeography and Global Change		
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Country	Spain		
Keywords	Biodiversity, climate change, conservation, distributions, insects, Lepidoptera, metapopulations, microclimate, scientific collections		

**A.2. Previous positions**

<b>Period</b>	<b>Position / Institution / Country</b>
01/08/2018-14/12/2025	Tenured Researcher (Científico Titular) / MNCN-CSIC
01/04/2007-31/07/2018	Lecturer/Senior Lecturer / University of Exeter / UK
03/04/2003-31/03/2007	Ramón y Cajal Fellow / Universidad Rey Juan Carlos / Spain
21/01/2000-28/02/2003	Research Associate / University of Leeds / UK
03/05/1999-20/01/2000	Research Assistant / University of Leeds / UK

**A.3. Education**

<b>Degree</b>	<b>University (Country)</b>	<b>Year</b>
PGCert, Academic Practice	University of Exeter (UK)	2010
PhD, Ecology	University of Leeds (UK)	2000
BA Hons - First Class, Biological Sciences	University of Oxford (UK)	1994

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

**A conservation biologist researching the effects of climate change and habitat fragmentation on species distributions, with a focus on butterflies and elevation gradients.** I have 30 years research experience in ecology and global change, with 90 SCI articles (Scopus 9230 citations, h-index 43) including 70 in Q1 journals. I have been PI or Co-I in 22 competitively funded projects (UK, Spain and EU), and am first, last and/or corresponding author on >50% of publications.

**Scientific contributions**

I hold four *sexenios de investigación* (2000-05; 2006-11; 2012-17; 2018-23). In my PhD and two post-docs (1995-2003; Univ Leeds UK) I studied range limits in Lepidoptera (Thomas et al *Nature* 2001 411:577-581), and effects of colonization and extinction on species distributions (Wilson et al *Nature* 2004 432:393-396). During a Ramón y Cajal fellowship at Univ Rey Juan Carlos (2003-07) I began research on mountain elevation gradients as models for ecological effects of climate change (Wilson et al *Ecol Lett* 2005 8:1138-1146, *Global Change Biol* 2007 13:1873-1887). At Univ Exeter UK (2007-18) I researched extinction risk from climate change (Maclean & Wilson *Proc Natl Acad Sci* 2011 108:12337-12342); and began long-standing collaborations with my former postdocs Ilya Maclean and Jon Bennie



(now tenured at Exeter) on ecological effects of microclimate (Bennie et al *Ecol Lett* 2013 16:921-929; Suggitt et al *Nature Climate Change* 2018 8:713-717).

I began at Museo Nacional de Ciencias Naturales (MNCN-CSIC) in 2018 and was promoted to *Investigador Científico* in 2025. I research vulnerability to global change in butterflies as focal systems. Key research lines are:

1) *Climate change and mountain biodiversity*: In the project *Identifying climate change refugia using Iberian mountain butterflies* (2019-2022) we found that topographic variation buffers changes in communities against recent warming (Mingarro et al 2021; Álvarez et al 2024). I researched the capacity of range shifts by multiple species to cause biodiversity tipping points in the project *Detecting Abrupt Responses to climate change using the butterflies of Mountain elevation gradients* (2022-2025), and as Co-PI for the UK grant *Predicting sudden and widespread biodiversity loss on a rapidly warming planet - when and where does biology change things?* (PI Alex Pigot [UCL, London], 2022-2025). From 2025 to 2028 I am developing this research line in the project *Testing the Role of Adaptation in Climate Change Responses using Mountain Butterflies (TRACCR)* to assess morphological, genomic and thermal ecophysiological evidence for adaptation to climate change in Spanish mountain ranges, using fieldwork, experimental approaches and analyses of historical museum specimens. The new proposal aims to assess constraints of biotic interactions on climate change responses.

2) *Insect responses to global change*: I research how scientific collections can help detect and understand global change effects. I was PI on the projects *Digitization to adapt an entomology collection to the environmental challenges of the 21st century* (2022-2025) and *Instigating a National Reference Collection for Spain's Threatened Pollinators* (EU WP7, Transforming European Taxonomy through Training, Research and Innovations; 2024-2025). My research addresses the insect crisis, the validity of the IUCN Red List for insect assessment and implications of open access data for citizen science, collaborating closely with NGOs working on insect conservation (e.g. two PhDs co-supervised with UK Butterfly Conservation).

### **Experience in Research Supervision and Training**

I have supervised 9 completed PhDs, leading to 29 publications with the doctoral researcher as first author. I am currently supervising one PhD researcher. I have supervised 32 Masters projects (TFM) and 34 undergraduate projects (TFG). Four completed PhDs obtained postdoctoral jobs in research; the other five in conservation or environmental management.

At MNCN-CSIC since 2021 as *Deputy Director for Scientific and Professional Training* I am developing initiatives for training and wellbeing among >100 pre- and post-doctoral researchers. I am a member of the Equality Commission at MNCN-CSIC, and from 2014-2018 was the Chair of the Equality and Diversity Committee for Biosciences at the University of Exeter, obtaining an Athena SWAN Bronze Award in 2017.

### **Mobility & internationalisation**

I conduct research mainly in Spain and the UK, maintaining collaborations with international authorship (institutions in >1 nation) on >50% of articles. I organise research seminars at MNCN-CSIC, with 89 national and international speakers in 2022-25, and was on the scientific organising committee of the 2023 Butterfly Conservation international symposium. I acted as expert reviewer for the 2025 IUCN Regional Red List of butterflies in Spain.

I have been Editor-in-Chief of the journal *Ecological Entomology* since 2022, and Associate Editor for *Proceedings of the Royal Society B* since 2014.

## **Part C. RELEVANT MERITS**

### **C.1. Publications** (selected from the past 5 years; \* shows PhD student; [Scopus citations])

1. Alamo, M.\*, Mingarro, M., **Wilson, R. J.**, & Álvarez, H. A. (2026). Effects of elevation and microclimatic temperatures on butterfly-flower interaction networks in a Mediterranean mountain range. *Insect Conservation and Diversity* 19, 93-105.
2. Ursul, G.\*, Mingarro, M., Castro-Cobo, S., Cancela, J.P., Romo, H., **Wilson, R.J.** (2025) Local climatic effects on colonisation and extinction drive changes in mountain butterfly communities. *Diversity and Distributions* 31, e13967. [1]



3. Stewart, J.E.\* , Maclean, I.M., Botham, M., Dennis, E.B., Bridle, J., & **Wilson, R.J.** (2024). Phenological variation in biotic interactions shapes population dynamics and distribution in a range-shifting insect herbivore. *Proceedings of the Royal Society B*, 291(2036), 20240529.
4. Álvarez, H.A., Walker, E., Mingarro, M., Ursul, G.\* , Cancela, J.P., Bassett, L., **Wilson, R.J.** (2024) Heterogeneity in habitat and microclimate delay butterfly community tracking of climate change over an elevation gradient. *Biological Conservation* 289, 110389. [10]
5. Jones, R.\* , **Wilson, R.J.**, Bourn, N.A.D., Maclean I.M.D. (2023) Patchy range retractions in response to climate change and implications for terrestrial species conservation. *Landscape Ecology* 38, 3003–3025. [9]
6. Jones, R.\* , Bourn, N.A.D., Maclean, I.M.D., **Wilson, R.J.** (2023) Landscape-scale dynamics of a threatened species respond to local-scale conservation management. *Oikos* 2023 e09334. [5]
7. Stewart, J.E.\* , Maclean, I.M., Trujillo, G., Bridle, J., & **Wilson, R.J.** (2022). Climate-driven variation in biotic interactions provides a narrow and variable window of opportunity for an insect herbivore at its ecological margin. *Philosophical Transactions of the Royal Society B*, 377(1848), 20210021.[9]
8. Mingarro, M., Cancela, J.P., Burón-Ugarte, A., García-Barros, E., Munguira, M.L., Romo, H., **Wilson, R.J.** (2021) Butterfly communities track climatic variation over space but not time in the Iberian Peninsula. *Insect Conservation and Diversity* 14, 647-660. [23]
9. Gutiérrez, D. & **Wilson, R.J.** (2021). Intra-and interspecific variation in the responses of insect phenology to climate. *Journal of Animal Ecology*, 90(1), 248-259. [50]
10. **Wilson, R.J.** & Fox, R.\* (2021) Insect responses to global change offer signposts for biodiversity and conservation. *Ecological Entomology*, 46, 699-717. [106]

## C.2. Congresses (selected from the past 5 years)

1. **Wilson, R.J.**, Sánchez, A., González, M., Álvarez Fidalgo, P., Sánchez Ruiz, M., París, M. Harnessing an entomology collection to tackle the impacts of global change on butterflies. Oral presentation, 6th International Symposium on Future for Butterflies & Moths, Wageningen (Netherlands), 04/25.
2. **Wilson, R.J.**, Ursul, G., Castro Cobo S., Cancela J.P., Romo, H., Mingarro, M., Williamson, J. Thermal exposure and sensitivity determine mountain butterfly range shifts. Oral presentation, British Ecological Society Annual Meeting, Liverpool (UK), 12/24.
3. **Wilson, R.J.**, Ursul, G., Mingarro, M., Álvarez, H.A. Turnover in space and time of mountain butterfly communities over four decades of environmental change. Oral presentation, Royal Entomological Society ENTO23, Exeter (UK), 09/23.
4. **Wilson, R.J.**, Ursul, G., Goded Blanco, M., Mingarro, M., Gómez-Vadillo, M., Castro-Cobo, S. The influence of climatic extremes on mountain butterfly distributions. Oral presentation, Butterfly Conservation International Symposium “Conserving Lepidoptera in a Changing World”, Wyboston (UK), 04/23.
5. **Wilson, R.J.**, Ursul, G., Mingarro, M., Castro Cobo S., Cancela J.P., Romo, H. The role of topography in buffering the responses of mountain butterflies to climatic variation. Oral presentation, Royal Entomological Society ENTO22, Lincoln (UK), 09/22.
6. **Wilson, R.J.**, Ursul, G., Mingarro, M., Castro Cobo S., Cancela J.P., Romo, H. How topographic variation buffers the effects of climate change on mountain butterfly communities. Oral presentation, “Ecology Across Borders” meeting of the British Ecological Society and Société Française d’Écologie et d’Évolution, Liverpool (UK), 12/21.
7. **Wilson, R.J.** *Detecting refugia from climate change based on colonization, local extinction and changes to community composition.* Invited plenary lecture, Frontiers in E3 7th Annual Meeting, Centre for Ecology, Evolution and Environmental Changes cE3c, Lisbon (Portugal), 10/21.

### C.3. Research Projects (past 5 years)

1. PID2024-156940OB-I00 - *Testing the Role of Adaptation in Climate Change Responses using Mountain Butterflies* (TRACCR); Proyectos de Generación de Conocimiento 2024. **Wilson, R.J.** 09/25-08/28. Principal Investigator - €196,250.
2. INC-STEP - *Instigating a National Reference Collection for Spain's Threatened Pollinators*; EU WP7 Third Party Project, TETTRIs Transforming European Taxonomy through Training, Research and Innovations. **Wilson, R.J.**, Ariño, A.H., Cabrero Sañudo, F.J., Montagud Alario, S., Caballero López, B. 01/24-10/25. Principal Investigator - €200,000.
3. TED2021-130795B-I00 - *La Digitalización para Adaptar una Colección de Entomología a los Retos ambientales del Siglo 21* (DACER21); Proyectos Orientados A La Transición Ecológica y a La Transición Digital 2021. **Wilson, R.J.** & Bastir, M. 12/22-09/25. Principal Investigator - €269,100.
4. PID2021-126293OB-I00 - *La Detección de Respuestas Abruptas al cambio climático utilizando Mariposas en gradientes de elevación de montañas* (DRAMA); Proyectos de Generación de Conocimiento 2021 Modalidad: Investigación Orientada Tipo B. **Wilson, R.J.** 09/22-08/25. Principal Investigator - €145,200.
5. NE/W006618/1 - *Predicting sudden and widespread biodiversity loss on a rapidly warming planet - when and where does biology change things?* Natural Environment Research Council (NERC UK). Pigot, A.L., Bridle, J.R., Gregory, R.I. (University College London, UK), Maclean, I.M.D., Merow, C. & **Wilson, R.J.** 01/22-12/25. Co-PI. £791,400.
6. RTI2018-096739-B-C21 - *Identifying climate change refugia using Iberian mountain butterflies* (ICRUMB); Programa Estatal de I+D+i Orientada a los Retos de la Sociedad. **Wilson, R.J.** 01/19-09/22. Principal Investigator - €121,000.

### C.4. Contracts, technological or transfer merits

#### Communication, Dissemination and Training (past 5 years)

##### 1. Public Communication of Science Talks:

- i. *Combinando trabajo de campo y colecciones históricas para revelar la vulnerabilidad de las mariposas al cambio global*. Encuentro BMS España, CENEAM (Valsaín), 03/25.
- ii. *¿Para qué sirve una colección de mariposas?* Pint of Science España 2024; Museo Nacional de Ciencias Naturales, 04/24; Café Gijón (Madrid), 05/24; Ciencia Serrana, Los Molinos (Madrid), 11/24.
- iii. *Influencia del microclima en la respuesta de las mariposas al cambio climático*. 1<sup>o</sup> Encuentro BMS España, CENEAM (Valsaín), 11/22.
- iv. *Butterflies, microclimate and climate change*. Butterfly Conservation Europe / eBMS Butterfly Talks, 03/22.

##### 2. Participation in radio and television science communication programmes:

- i. RTVE Radio Nacional de España – A Hombros de Gigantes – “Las abejas y otros polinizadores están desapareciendo” – 11/05/2024  
<https://www.rtve.es/play/audios/a-hombros-de-gigantes/hombros-gigantes-abejas-otros-polinizadores-estan-desapareciendo-11-05-24/16097894/>
- ii. RTVE 24 Horas – Objetivo Planeta – “Sin insectos no hay vida” - 19/01/2023  
<https://www.rtve.es/play/videos/objetivo-planeta/sin-insectos-no-hay-vida/6780080/>

##### 3. Training and academic mentoring:

1. Deputy Director for Training (*Vice-Director de Formación Científica y Profesional*), Museo Nacional de Ciencias Naturales (MNCN-CSIC), 06/2021-present.
2. Director of PhD theses (past ten years): Mario Alamo del Olmo (2026-29 /1 first author paper); Guim Ursul (2020-25 /2); Rachel Jones (2017-25 /3); Leo Gubert (2015-22 /2); James Stewart (2015-20 /4); Richard Fox (2016-20 /3); Lynda Donaldson (2014-17 /4).  
[Number of publications as first author]