

Maria Cuenca Cambronero

Aquatic Ecology Group, University of Vic, Spain
email: maria.cuenca@uvic.cat / mc.cuenca.maría@gmail.com
Website: mariacuenca-cambronero.github.io

Research experience

Dec 2024 –	Postdoc senior , University of Vic, Aquatic ecology group (GEA), Spain. TRANSPOUNDER project. Functional diversity and environmental factors. Leading contribution and coordination of WP4 – Spanish team
March 2021 – Nov 2024	Postdoc senior , University of Vic, Aquatic ecology group (GEA), Spain. PONDERFUL project. Biodiversity-Ecosystem function relationship Leading contribution to WP2 – Spanish team
March 2019 – Feb 2021	EMBO Postdoc fellowship , Eawag, Department of Fish Ecology and Evolution, Switzerland Project: Eco-Evolutionary feedback of zooplankton communities after eutrophication periods on artificial ponds. Leading researcher: Dr. Maria Cuenca
May 2017 – April 2018	Research Fellow on Experimental Evolution and Omics, Department of Environmental Genomics, University of Birmingham, UK.
August - October 2013	Field assistant , Group of study of cetaceans in the Cotentin, Normandie, France. Project: "Study and preservation of marine mammals in the English Channel".
February- August 2013	Field technician , Department of Evolutionary Ecology of Doñana Biological Station (CSIC), Seville, Spain. Project I: "Communication costs and evolution of begging signals in birds" Project II: "Effects of native and exotic predators on amphibian larvae" Project III: "Effects of habitat alteration on the habitat use of the Red-necked Nightjar"

Education

April 2014 - July 2018. **PhD** in the Environmental Genomics Group at the University of Birmingham, UK.
 Thesis title: "Documenting long-term impact of eutrophication and Climate Change on the keystone species *Daphnia magna* using resurrection ecology and paleogeomics".
 Supervisors: Dr. Luisa Orsini and Prof. John Colbourne.

Oct. 2011 - Oct. 2012. **MSc** in Biodiversity and Conservation Biology at Pablo de Olavide University, Seville, Spain. Research project: "Inbreeding effects of Iberian Lynx (*Lynx pardinus*) ex situ".
 Supervisor: Dr. Jose A. Godoy. Department of Integrative Ecology (EBD-CSIC).

Sep. 2008 - Sep. 2009. **International MSc** of Science in Marine Biodiversity and Conservation (EMBC+) at the University of Bremen, Germany. *MSc as part of the Erasmus Fellow.*

Sep. 2005 - Sep. 2011. **BSc** in Biology at the University of Valencia, Spain. Research Project: "Physiology of marine molluscs reproduction (PhyMR)". *Project completed as part of the Erasmus Practical Fellow.*
 Supervisor: Prof. Pascal Sourdaine. Department of Biology of Marine Molluscs and Ecosystem Associated. University of Caen, France.

Publications

19. Rincon-Palau, K., Badosa, A., Avci, F., Bartrons, M., Beklioglu, M., Boix, D., **Cuenca-Cambronero, M., et al.**, (2025). Larger crustacean zooplankton thrive at lower temperatures and under reduced predation in pond ecosystems. *Hydrobiologia* [DOI].
18. Fehlinger, L., **Cuenca-Cambronero, M., et al.**, (2025). Europe's Mountain ponds under pressure: ecology and management in times of global change. *Inland water* [DOI].
17. Rincon-Palau, K., Badosa, A., **Cuenca-Cambronero, M., et al.**, Trochine, C., Sgarzi, Serena., Quintana D. X., Boix, D., Brucet, S. (2025). The size structure of zooplankton communities better reflects the trophic status of Mediterranean ponds than the taxonomic structure. *Freshwater biology* [DOI].
16. Bartrons, M., Jang, J., **Cuenca-Cambronero, M., et al.**, (2025). Why ponds concentrate nutrients: the roles of internal features, land use, and climate, *Hydrobiologia* [DOI].
15. Lopez-De Sancha, A., Benejam, L., Boix, D., **Cuenca-Cambronero, M., et al.**, (2025). Drivers of amphibian species richness in European ponds. *Ecography* [DOI].

14. King, R.L., Courtney-Mustaphi, J.C., **Cuenca-Cambronero, M.**, Heiri, O., Seehausen, O., and Matthews, Blake. (2024). Past food web dynamics of Lake Victoria examined using sedimentary invertebrate remains. *Freshwater Biology* [\[DOI\]](#).
13. Ngoepe, N., Wienhues, G., Temoltzin-Loranca, Y., Grosjean, M., King, L., Mathews, B., **Cuenca-Cambronero, M.**, et al. (2023). A continuous 17Ka fossil record from Lake Victoria reveals key insights into the process of adaptive radiation. *Nature* [\[DOI\]](#).
12. Chaturvedi, A., Dhandapani, V., Li, X., Marshall, M., Kissane, S., Jackson, C., Mirbahai, L., **Cuenca-Cambronero, M.**, et al. (2023). The hologenome of *Daphnia magna*: challenges at genome, transcriptome, and epigenome levels. *Nucleic Acid Research* [\[DOI\]](#).
11. Hudson, H.C., **Cuenca-Cambronero, M.**, Moosmann, M., Narwini, A., Spaak, P., Seehausen, O., Matthews, B. (2023). Environmentally independent selection for hybrids between divergent freshwater stickleback lineages in semi-natural ponds. *Journal of Experimental Biology* [\[DOI\]](#).
10. **Cuenca-Cambronero, M.**, et al. (2023). Changes and opportunities in the use of ponds and pondscapes as Nature-based Solutions. Contribution to the Special Issue, *Hydrobiologia* [\[DOI\]](#).
9. **Cuenca-Cambronero, M.**, et al. (2022). An integrative paleolimnological approach for studying evolutionary processes. *Trends in Ecology and Evolution* [\[DOI\]](#)
8. Moosmann, M., **Cuenca-Cambronero, M.**, De Lisle S., Greenway, R., Lürig, D.M., Hudson, H.C., Mathews, B. (2021). On the evolution of trophic position. *Ecology letter*. [\[DOI\]](#)
7. **Cuenca-Cambronero, M.**, Pantel, H.J., H., Marshall, Nguyen, T.T.T., Tomero-Sanz, H., Orsini, L. (2021). Evolutionary mechanisms underpinning fitness response to multiple anthropogenic stressors in *Daphnia*. Invited contribution to the Special Issue of *Evolutionary Applications* [\[DOI\]](#)
6. Toyota, K., **Cuenca-Cambronero, M.**, et al. (2019). Transgenerational plasticity in response to earlier spring warming in *Daphnia*. *Scientific reports* [\[DOI\]](#)
5. **Cuenca-Cambronero, M.**, et al. (2018). Predictability of the impact of multiple stressors on the keystone species *Daphnia*. *Scientific reports* [\[DOI\]](#)
4. **Cuenca-Cambronero, M.**, Beasley, J., Kissane, K., and Orsini, L. (2018). Evolution of thermal tolerance in multifarious environments. *Mol Ecol* [\[DOI\]](#)
3. **Cuenca-Cambronero, M.**, Zeis, B., and Orsini, L. (2017). Haemoglobin-mediated response to hyper-thermal stress in the keystone species *Daphnia magna*. Invited contribution to the Special Issue of *Evolutionary Applications*. [\[DOI\]](#)
2. **Cuenca-Cambronero, M.**, and Orsini, L. (2017). Resurrection of dormant *Daphnia*: protocol and applications. *JoVE* [\[DOI\]](#)
1. Orsini, L., Marshall, H., **Cuenca-Cambronero, M.**, Chaturvedi, A., Thomas, K.W., Pfrender, M. E., Spanier, K.I. and De Meester, L. (2016). Temporal genetic stability in natural populations of the waterflea *Daphnia magna* in response to strong selection pressure. *Mol Ecol* [\[DOI\]](#)

Book Chapters

- Cuenca-Cambronero, M.**, Niamh and Orsini, L. 2025 Resurrection ecology reimagined: leveraging *Daphnia* for evolutionary insights, environmental monitoring, and bioremediation. *Published by the Royal Society of Chemistry (Under review)*.

In review / in preparation

4. **Cuenca-Cambronero, M.**, et al. (2025). Biodiversity enhances pond ecosystem multifunctionality across Europe. *Nature Ecology and Evolution (Under review)*
3. Rincon-Palau, K., Badosa, Bartrons, M., Beklioglu, M., **Cuenca-Cambronero, M.**, et al. Zooplankton size structure reflects the trophic status of ponds along a latitudinal gradient (2025). *Limnology and Oceanography (Under review)*
2. Wigns, R., Fajgenblat, M., Lemmens, P., **Cuenca-Cambronero, M.**, et al. Climate and land use as key drivers of biodiversity in European Ponds (2025) (*in prep*).
1. Shahzadi, I., Brucet, S., **Cuenca-Cambronero, M.** (2026). Zooplankton functional traits and their importance for pond ecosystem functions: a systematic review (*in prep*).

Research expeditions

- Feb 2025 **Internship in Prof Manuel Delgado-Baquerizo's lab.** Statistical analysis with SEM, species networking and EMF. IRNAS-CSIC, Seville, Spain
- March 2016 **Internship in Dr. Andrew Beckerman's laboratory.** Statistical analyses in R. University of Sheffield, UK.
- April-May 2014 **Internship in Prof. Luc De Meester's laboratory.** Resurrection ecology techniques. KU Leuven, Belgium.

Approved research projects and funding

Period	Grant name	Code	Role	Value
2023-2026	Biodiversa+2022	Biodiversa 2022-64	Working group	115.000€
2025-2027	AGAUR- PhD student grant salary	2025FI-100479	Co-IP	71.800€
2022-2023	UVic-UCC - outreach activities grant.	DIVB0032023	Co-IP	1350€
2021-2022	UVic-UCC- outreach activities grant.	001DIVA2022	IP	1750€
2019-2021	EASI-genomics grant.	7888 - EcoevoLV	IP	10.000€
2019-2021	EMBO - Long term postdoctoral fellowship.	ALTF 929-2018	IP	150.000€

Awards and travel grants

Period	Travel grants and awards	Value
2024	University of Vic stay grant .	570€
2023, 2024 & 2025	University of Vic travel grant	200€
2021	Third best talk prize of Society of wetland Scientific, European Meeting	100€
2017	Best talk prize at Bioscience Graduate Research Symposium, Birmingham	200£
2017	Spanish Research United Kingdom travel grant	500£
2015, 2017 & 2018	University of Birmingham travel grant	500£

Supervision and mentoring (*Students with articles in common)

PhD	Irum Shahzadi	Main supervisor	Jul 2025 - present
	Katterine J. Rincon-Palau*	Third supervisor	Jan-Aug 2022
	Leighton King*	Co-supervisor	Mar 2020 - Mar 2021
BSc final project	Tien Nguyen* & Louisa Hampson	Co-supervisor	Oct 2016 - Mar 2017
	Eliot Jones	Co-supervisor	Oct - Dec 2015
MSc project	Hollie Marshall*	Co-supervisor	Oct 2014 - May 2015
	Henar Tomero-Sanz*	Co-supervisor	Jul - Sep 2018
Erasmus student	Alberto Valdivieso & Beatriz Garcia	Co-supervisor	Feb - Jul 2016
	Clara Zambrana	Co-supervisor	Oct - Dec 2015
Summer student	Julian Garcia & Camino Ruano	Co-supervisor	Jun - Aug 2015
	Hannah Tilley	Co-supervisor	Oct 2014 - Feb 2015
	Zoe Stroud	Co-supervisor	Jun - Sep 2014

Teaching activities

Module	Level	Period
Evolution – UVic, Spain	3 rd yr BSc	Dec 2022, 2023, 2024 & 2025
Scientific communication skills – UVic, Spain	1 st yr BSc	Nov 2024 & 2025
Global change - UVic, Spain	4 th yr BSc	Feb-May 2023 & 2024
Applied biostatistics I - U. Bern, Switzerland	1 st yr BSc	Sep-Dec 2020
Practical in aquatic ecology and evolution - U. Bern	1 st yr BSc	April 2019
Bioinformatics and basic programming in R - UofB, UK	MSc	Nov 2017
Evolution of humans and other animals - UofB, UK	1 st yr BSc	Oct 2016 & 2017
Plant Science: From cells to environment - UofB, UK	2 nd yr BSc	Oct 2016 & 2017
Animal Biology - UofB, UK	1 st yr BSc	Feb 2016
Molecular biology and its applications - UofB, UK	2 nd yr BSc	Oct-Nov 2015
Skills for Biosciences (Focus - microbiology) - UofB, UK	1 st yr BSc	Oct 2015 & 2016
Introduction to Evolution and Animal biology - UofB, UK	1 st yr BSc	Nov 2014, 2015 & 2016
Practical on Daphnia - UofB, UK	1 st yr BSc	Oct 2014, 2015, 2016 & 2017

Other academic merits and activities

ANECA accreditation of scientific trajectory – Sexennial	Sep 2025
ANECA Spanish accredited as associated professor	Mar 2024
Expert researcher at BECA (Bank of Collaborating Experts at AEI, Spain)	Oct 2024 -
Editor of the Special issue of Hydrobiologia	Sep 2024 -

Member of the Education Committee of SIL

Member at the **societies** of: SIL, SIBECOL and BES

Secretary of the Spanish Researchers in UK (SRUK)

Reviewer for journals: Freshwater biology, Global Change Biology, Science of Total Environment Journal, Wetlands, The Proceedings of the Royal Society B, Knowledge and Management of Aquatic Ecosystems, Evolutionary Ecology, Evolution, Ecology and Evolution, Hydrobiologia, Evolutionary Applications, and Annals of the Brazilian Academy of Sciences, Conservation Biology

May 2024 -
Feb 2024, Jan 2023,
and Mar 2021
Apr 2015 - Apr 2017

*A total of 35 revisions in
12 journals*

Most relevant conferences and symposiums (Last 5 years):

May 2025 - Huelva, Spain

Workshop: Conserving and restoring temporary ponds landscapes in Europe - **Invited speaker**

Jun 2025 - Pontevedra, Spain

SIBECOL-AEET Congress - **Symposium convener**

May 2024 - Foz Do Iguaço, Brazil

SIL: International Society of Limnology - **Symposium convener and speaker**

Sep 2023 - Lancaster, UK

BESAG: British Ecology Society Aquatic Group - **Invited speaker**

Aug 2022 - Davos, CH

WBF: World Biodiversity forum - **Symposium convener**

Jun 2022 - Geneve, CH

IntEcol: International Ecology conference - **Symposium convener and speaker**

Jun 2021 - Online

SWS: Society of Wetlands scientific: 16th SWS Europe Chapter Meeting.

Speaker with third best talk prize

Invited seminars

- 21/02/2025: **Invited speaker** at the University of Leuven, Belgium.
- 15/11/2018: **Invited speaker** at the Biological Station of Doñana (CSIC). Seville, Spain
- 19/11/2018: **Invited speaker** in the “Ecological seminar and discussion Series: Science Chat” at Bremen University (Germany).

Outreach

- 18-20/05/2026. **Invited speaker** at Pint of Science ([link](#)).
- 23/08/2025. **Interview** on the TV program “TV3: Telenotícies Migdia” ([link](#)).
- 16/02/2024. **Invited speaker** at Women and Girls in Science. School Bonifacio Sotos (Albacete).
- 27/09/2023. **Invited speaker** at the European Night of Science ([link](#)).
- 04/05/2023 and 13/03/2023. **Article** in the UVic newspaper, L'Apunt ([link](#) & [link](#)).
- 11/03/2022. **Article** in the local newspaper of Osona, El9Nou ([pdf](#)).

Training and development

- 10, 17 & 24, Feb 2026. **Research Project Management course**. University of Vic, Spain.
- 10 Mar 2022. **EMBO Communication research**: paper writing and short presentation. Online
- 6 workshop days/2020. Connecting **Women's careers in the Academy and Industry**. Switzerland
- 20-22 Nov 2020. **EMBO laboratory leadership**. Online course
- 16-18 Jan 2017. **Population Genomics** Workshop. University of Sheffield, UK.
- 6-11 Mar 2016. **Environmental genomics** course. University of Birmingham, UK
- 8-12 April 2013. Course of **ArcGIS**. EBD-CSIC, Seville, Spain
- 1-8 Feb 2013. Course on advanced **statistics in R**. EBD-CSIC, Seville, Spain.

Languages skills

Native Language: Spanish

Language	Reading	Speaking	Writing
English	Advanced	Advanced	Advanced
French	Intermediate	Intermediate	Intermediate
German	Basic	Basic	Basic