

Maria Cuenca Cambronero

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

Research experience

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| Dec 2024 – | Postdoc senior , University of Vic, Aquatic ecology group (GEA). TRANSPONDER project. Functional diversity and environmental factors. Leading contribution and coordination of WP4 |
| March 2021 – Nov 2024 | Postdoc senior , University of Vic, Aquatic ecology group (GEA). PONDERFUL project. Biodiversity-Ecosystem function relationship Leading contribution to WP2 |
| March 2019 – Feb 2021 | EMBO Postdoc fellowship , Eawag, Department of Fish Ecology and Evolution. Project: Eco-Evolutionary feedback of zooplankton communities after eutrophication periods on artificial ponds. Leading researcher: Dr. Maria Cuenca |
| 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" 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 Sourdain. Department of Biology of Marine Molluscs and Ecosystem Associated. University of Caen, France.

Publications

Accepted:

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.**, Trochine, C., Sgarzi, Serena., Quintana D. X., Boix, D., Brucet, S. (2025) The size structure of zooplankton communities reflects better 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, *Hidrobiologia* [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-Cambroneró, 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-Cambroneró, 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-Cambroneró, 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-Cambroneró, 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-Cambroneró, M.**, *et al*, (2023) Changes and opportunities in the use of ponds and pondscapes and Nature-based Solutions. Contribution to the Special Issue, *Hydrobiologia* [DOI].
9. **Cuenca-Cambroneró, M.**, *et al*, (2022) An integrative paleolimnological approach for studying evolutionary processes. *Trends in Ecology and Evolution* [DOI].
8. Moosmann, M., **Cuenca-Cambroneró, M.**, De Lisle S., Greenway, R., Lürig, D.M., Hudson, H.C., Matthews, B. (2021) On the evolution of trophic position. *Ecology letter.* [DOI].
7. **Cuenca-Cambroneró, 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-Cambroneró, M.**, *et al*, (2019) Transgenerational plasticity in response to earlier spring warming in *Daphnia*. *Scientific reports* [DOI].
5. **Cuenca-Cambroneró, M.**, *et al*, (2018), Predictability of the impact of multiple stressors on the keystone species *Daphnia*. *Scientific reports* [DOI].
4. **Cuenca-Cambroneró, M.**, Beasley, J., Kissane, K., and Orsini, L. (2018) Evolution of thermal tolerance in multifarious environments. *Mol Ecol.* [DOI].
3. **Cuenca-Cambroneró, 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-Cambroneró, M.**, and Orsini, L. (2017), Resurrection of dormant *Daphnia*: protocol and applications. *JoVE* [DOI].
1. Orsini, L., Marshall, H., **Cuenca-Cambroneró, 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].

In review / in preparation

6. **Cuenca-Cambroneró, M.**, *et al*, (2025) Biodiversity enhances pond ecosystem multifunctionality across Europe. *Nature Ecology and Evolution (Under review)*
5. Rincon-Palau, K., Badosa, bartrons, M., Beklioglu, M., **Cuenca-Cambroneró, M.**, *et al*, Zooplankton size structure reflects the trophic status of ponds along a latitudinal gradient (2025) *Limnology and Oceanography (Under review)*
4. Rincon-Palau, K., Badosa, A., Boissezon, Boix, D., **Cuenca-Cambroneró, M.**, *et al*, (2025) Zooplankton size structure in European ponds: Local factors override latitudinal differences. *Hidrobiology (Under review)*.
3. Wigns, R., Fajgenblat, M., Lemmens, P., **Cuenca-Cambroneró, M.**, *et al*, Climate and land use as key drivers of biodiversity in European Ponds (2025) (*in prep*).
2. Mehner, T., Bartrons, M., Lotian, M., Hasnain, S., Trochine, C., Meerhoff, M., Wijns, R., Von Plüskow, L.M., **Cuenca-Cambroneró, M.**, Rincon-Palau, K., Beklioglu, M., Brucet, S., Lemmens, P. (2026). Effect of land use on community assemblage of European Ponds (*in prep*).
1. Shahzadi, I., Brucet, S., **Cuenca-Cambroneró, M.** (2026). Zooplankton functional traits and its importance for pond ecosystem functions: a systematic review (*in prep*).

Book Chapters

- Cuenca-Cambroneró, 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)*.

Approved research projects and funding

| Period | Grant name | Role | Value |
|-----------|--|------------|----------|
| 2023-2026 | Biodiversa+2022 and Spanish Ministry of Science. | Co-leading | 115.000€ |
| 2022-2023 | UVic-UCC - outreach activities grant. | Co-leading | 1000€ |
| 2021-2022 | UVic-UCC- outreach activities grant. | Leading | 1750€ |
| 2019-2021 | EASI-genomics grant. | Leading | 10.000€ |
| 2019-2021 | EMBO - Long term postdoctoral fellowship. | Leading | 140.000€ |

Awards and travel grants

| Period | Travel grants and Prices | 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€ |

Research expeditions

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| Feb 2025 | Internship in Prof Manuel Delgado-Baquerizo's lab. Statistical analysis with SEM 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. |

Supervision and mentoring

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| PhD | Irum Shahzadi | Main supervisor | Jul 2025 - present |
| | Katherine J. Rincon-Palau | Third supervisor | Jan-Aug 2022 |
| 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 |
| | Alberto Valdivieso & Beatriz Garcia | Co-supervisor | Feb - Jul 2016 |
| Erasmus student | Clara Zambrana | Co-supervisor | Oct - Dec 2015 |
| | Julian Garcia & Camino Ruano | Co-supervisor | Jun - Aug 2015 |
| | Hannah Tilley | Co-supervisor | Oct 2014 - Feb 2015 |
| Summer student | Zoe Stroud | Co-supervisor | Jun - Sep 2014 |

Teaching activities

| Module | Level | Period |
|--|------------------------|-----------------------------|
| Evolution – UVic, Spain | 3 rd yr BSc | Dec 2022, 2023 & 2024 |
| Scientific communication skills – UVic, Spain | 1 st yr BSc | Nov 2024 |
| Global change - UVic, Spain | 4 th yr BSc | Feb-May 2024 & 2023 |
| 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

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| ANECA accreditation of scientific trajectory - Sexennial | Jun 2025 |
| ANECA Spanish accredited as contracted professor doctor | 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 at the societies of: SIL, SIBECOL and BES | Feb 2024, Jan 2023, and Mar 2021 |
| Secretary of the Spanish Researchers in UK (SRUK) | Apr 2015 - Apr 2017 |
| Reviewer for journals: Freshwater biology, Global Change Biology, Science of Total Environment Journal, Wetlands, The Proceedings 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 | <i>A total of 27 revisions in 12 journals</i> |

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).

Most relevant conferences and symposiums (Last 5 years):

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| 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: 16 th SWS Europe Chapter Meeting. Speaker with third best talk prize |

Outreach

- 16/02/2024. Woman and girls in science. School Bonifacio Sotos (Albacete).
- 27/09/2023. Invited speaker at the European night of science.
- 03/05/2023 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

- **March 2022. EMBO Communication research:** paper writing and short presentation. Online
- 6 workshops days/2020. Connecting **Women's career in Academy and Industry**. Switzerland
- Nov 2020. **EMBO laboratory leadership**. Online course
- Jan 2017. **Population Genomics** Workshop. University of Sheffield, UK.
- Mar 2015. **Environmental genomics** course. University of Birmingham, UK
- April 2013. Course of **ArcGIS**. EBD-CSIC, Seville, Spain
- Feb 2013. Course on advance **statistic 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 |