

PACIENT RESPECTFUL

MARIA CALDERÓ PASCUAL

TEAM WORK

COMPETENT

NATURAL

COMMITTED

ORGANISED

PUNCTUAL

PERFECTIONIST

CURIOUS

MULTIDISCIPLINARY

CREATIVE

INITIATIVE

RESPONSIBLE

DEDICATED



...and what counts is the effort of the day-to-day!

2021

Calderó-Pascual et al. in revision
(*Hydrobiologia*)

Champion of ZooSize project
(Global Lake Ecological Observatory Network)

2020

PARAFAC model course
(drEEM toolbox in MATLAB)

Calderó-Pascual et al. published
(*Water*)

2019

Transfer Viva – PhD candidate
(Dundalk Institute of Technology)

AQUACOSM Transnational Access
(Middle East Technical University)

2018

PhD position in limnology research
(Dundalk Institute of Technology)

2017

Water research volunteering
(Volunteering Initiative Nepal, Kathmandu)

2016

Master in Water Science and Technology
(University of Girona)

Master Thesis

(Catalan Institute of Water Research)

Work experience with existing treatment
systems for nitrate polluted groundwater
(Catalan Water Partnership)

2015

Degree in Biotechnology
(University of Girona)

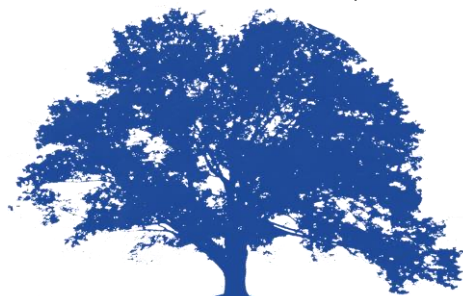
Final degree project (Erasmus+)
(Danish Technical University)

2014

Work experience with integrated
membrane system for water reuse
(Catalan Institute of Water Research)

2013

Extracurricular experience in DNA
extraction (University of Girona)



Degree in Biotechnology

Master in Water Science and Technology

PhD candidate in Limnology Research

ACADEMIC BACKGROUND

2017 - Present PhD in lake biogeochemistry and planktonic communities, Dundalk Institute of technology, Ireland. 4 years funded by the Marine Institute through BEYOND2020 project. Supervised by Dr Valerie McCarthy and Prof Eleanor Jennings.

Transfer Viva: *Nutrients and zooplankton dynamics over one year period in Lough Feeagh* (Accepted to transfer to PhD candidate, 2019).

2016 Master in Water Science and Technology, University of Girona, Spain.

Master thesis: *Dissemination of a plasmid encoding antibiotic resistance in experimental bioreactor* (Grade: 9,9/10 - outstanding mark). Supervised by Dr Carles Borrego and Dr Oriol Gutierrez.

2015 Degree in Biotechnology, University of Girona, Spain.

Final degree project: *Modelling respirometric assays for estimating kinetic parameters for ammonium and nitrite oxidizing bacteria. Measurements and analysis of N₂O dynamics* (Grade: 9,9/10). Supervised by Dr Carlos Domingo-Félez and Dr Jesús Colprim.

SCIENTIFIC PUBLICATIONS

- **Calderó-Pascual, M.**; Yıldız, D.; Yalçın, G.; Metin, M.; Yetim, S.; Fiorentin, C.; Andersen, M. R.; Jennings, E.; Jeppesen, E.; Ger, A. K.; Beklioğlu, M.; McCarthy, V. The importance of allochthonous organic matter quality when investigating pulse disturbance events in freshwater lakes: a mesocosm experiment. In revision. *Hydrobiologia* **2021**.
- Hoke, A.; Woodhouse, J.; McCarthy, V.; de Eyto, E.; **Calderó-Pascual, M.**; Geffroy, E.; Dillate, M.; Grossart, HP.; Jennings, E. Impacts of Extreme Weather Events on Bacterial Community Composition of a Temperate Humic Lake. *Water* **2020**, 12.1, 2757.
- **Calderó-Pascual, M.**; de Eyto, E.; Jennings, E.; Dillane, M.; Andersen, M. R.; Kelly, S.; Wilson, H. L.; McCarthy, V. Effects of Consecutive Extreme Weather Events on a Temperate Dystrophic Lake: A Detailed Insight into Physical, Chemical and Biological Responses. *Water* **2020**, 12.5, 1411.
- Domingo-Félez, C.; **Calderó-Pascual, M.**; Sin, G.; Plósz, B. G.; Smets, B. F. Calibration of the comprehensive NDHA-N₂O dynamics model for nitrifier-enriched biomass using targeted respirometric assays. *Water research* **2017**, 126, 29-39.

SCHOLARSHIPS

2019 AQUACOSM Transnational Access Grant Access free of charge, travel expenses and lodging for two months in Middle East Technical University to participate in a mesocosm experiment with an individual research project to carry out. Check [blog post](#) to know more about the experience.

2018 GLEON20 Travel Award Travel expenses to participate in GLEON20 conference in Australia.

2016 Santander Scholarship CRUE-CEPYME Work experience for three months in ABM Serveis d'Enginyeria i Consulting SL Company, in collaboration with the Catalan Water Partnership and Catalan Water Agency, to carry out the project entitled "*Analyses of existing treatment systems for nitrate polluted groundwater in Catalonia*".

2015 ERASMUS+ Grant Living expenses for three months to carry out my final degree project in Technical University of Denmark. April-July. Part of LaGas project supervised by Prof Barth F. Smets.

SELECTED CONFERENCES

2021 SEFS. Virtual. Oral (2). *Long-term trends and impact of environmental drivers on dystrophic lake plankton & Effects of consecutive extreme weather events on a temperate dystrophic lake.*

2021 ASLO. Virtual. Oral. *Long-term trends and impact of environmental drivers on dystrophic lake plankton.*

2021 2nd AQUACOSM symposium. Virtual. Oral. *Characterisation and impact of different allochthonous organic matter additions in a mesocosm experiment investigating pulse disturbance events in Mediterranean shallow lakes.*

2021 Shallow lakes conference. Virtual. Oral. *Characterisation and impact of different allochthonous organic matter additions in a mesocosm experiment investigating pulse disturbance events in Mediterranean shallow lakes.*

2021 IFSA. Virtual. Oral. *Zooplankton taxa specific grazing experiments in Lough Feeagh.*

2020 GLEON21.5. Virtual. Traits & tech sub-working group.

2020 ENVIRON. Dublin, Ireland. Oral. *Effects of consecutive extreme weather events on a temperate dystrophic lake: a detailed insight into physical, chemical and biological responses.*

2019 SIBECOL. Barcelona, Spain. Poster. *Nutrient dynamics in Lough Feeagh to understand the drivers of ecosystem productivity.*

2018 GLEON20. Rottneest Island, Australia. Poster. *Nutrient dynamics in Lough Feeagh to understand the drivers of ecosystem productivity.*

2018 IFSA. Dublin, Ireland. Oral. *The BEYOND2020 project.*

2017 GLEON19. New York, USA. Poster. *Resolving the links between nutrient and carbon budgets in the Burrishoole catchment.*

INTERNATIONAL COLLABORATIONS

2021 AQUACOSMplus World Café Co-author of an opinion paper. "*Changing mean and variance in ecosystems under global change*".

2021 EFI Aquatic Forecast Challenge "Beyond the water" group participant.

2021 ZooSize project Project co-champion.

2021 ZooST and ZIG projects Data provider and part of the data harmonization team.

2020 EUROPONDS project Irish selected participant.

2020 GEISHA-Stormblitz project Data provider.

2019 TRADE-OFFS project Data provider.

2019 DayNNightZ project Data provider.

COURSES AND TRAINING

2021 Introduction to lake ecosystem modelling with WET by Tobias K. Andersen through GLEON GSA limnoserries. Online workshop. 15th June.

2020 Introduction to LaTeX by Johannes Feldbauer & César Ordóñez through GLEON GSA limnoserries. Online workshop. 23rd February.

2020 Produce a validated PARAFAC model from fluorescence and absorbance measurements using the drEEM toolbox in MATLAB. Online course. 5th-23rd October.

2020 General Additive Models with Dr Gavin Simpson. Online workshop. 30th July 2020.

2018 Introduction to “GGPLOT2” and “PLOTLY” in R Studio. University of Barcelona, Spain. SIBECOL conference workshop. 4th February.

2018 R programming: QAQC of high-frequency lake data and application of GLEON-initiated R packages. Karma Resort, Australia. GLEON20 conference workshop. 3rd December.

2018 SUVA nitrate sensor training by the company SEA-BIRD scientific. Dundalk Institute of Technology, Ireland. 21st May.

2018 Introduction to freshwater algae identification course. Durham University, UK. 9th-13th July.

2018 Understanding methods and tools used for high frequency data analysis. IGB Lakelab, Germany. 2nd MANTEL Training School workshop. 19th-23rd February.

2017 Data visualization in R. Mohonk Mountain House, USA. GLEON19 conference workshop. 27th November.

2017 Interdisciplinary concepts for municipal wastewater treatment and resource recovery; tackling future challenges; modelling assessment and decision support tools. Catalan Water Research Institute, Spain. TreatRec advanced training course. 15th–16th March.

2014 Work experience in Catalan Institute of Water Research. June August 2014. *“Operation of an integrated membrane system for water reuse, work experience report”*. Industrial experience supervised by Dr Ignasi Rodríguez Roda.

2013 Extracurricular experience in DNA extractions from aquifer samples. June-July 2013. Microbiology laboratory practices supervised by Dr Carles Borrego.

COMPUTER PROGRAMES

Currently used RStudio, MATLAB, Office and Zotero.

Introduced during the degree and master AQUASIM, BioEdit, Groundwater Vistas, MEGA, Medusa, MINTEQ, Octave, Stella, GIS and Simulink.

LANGUAGES

Catalan Native speaker. High school diploma. Level C1. 2011.

Spanish Bilingual. High school diploma. Level C1. 2011.

English Cambridge FCE. Level B2. 2011 and TOEFL iBT. 81/120. 2014.

French DELF. Level B1. 2007.

German UdG service of languages. Level B1. 2014.

ADDITIONAL INFORMATION

Incorporation available from October 2021.

2011 - Present Driving licence B and own car.

2017 Volunteering experience in Water Research in Nepal with Volunteering Initiative Nepal (VIN). Kabresthali community, Kathmandu. July-August (5 weeks).

2013 Certificate in Vocational Graded Examination in Dance: Advanced I (Ballet) for the Royal Academy of Dance.

2009 – 2013 Leader of a voluntary work. River forest reforestation in Riudellots de la Selva, Girona, Spain. With the collaboration of family, friends, people from town, town council and industrial area.