

## CV OF THE RESEARCHER

### Personal details

Full name: Sílvia Poblador Ibáñez

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### Education

- 10/07/2018 PhD in Ecology, Environmental Science and Plant Physiology, University of Barcelona, Spain.  
Grade: Excellent with honours.
- 04/01/2011 MSc in Environmental Management and Restoration, University of Barcelona, Spain.
- 29/09/2009 BSc in Environmental Science, University of Barcelona, Spain.

### Professional history

- 01/03/2025 – 28/02/2027 Post-doc researcher Marie Skłodowska-Curie Actions Fellowship. Ecological and Forestry Applications Research Centre (CREAF), Spain. *Topic: Enhanced silicate weathering in agricultural rice paddies: maximisation of soil carbon sequestration and crop production, while reducing the overall greenhouse gas emissions.*
- 22/02/2023 – 21/02/2025 Post-doc researcher. University of Barcelona, Spain. *Topic: Greenhouse gas emissions from wetlands within the HORIZON project ALFAwetlands.*
- 01/07/2019 – 31/01/2023 Post-doc researcher. University of Antwerp, Belgium. *Topic: enhanced weathering on inland agricultural practices.* From 2020-2022 under an FWO Marie Skłodowska-Curie Actions - Seal of Excellence Postdoctoral Fellowships.
- 02/01/2013 – 10/07/2018 PhD candidate. Researcher Personnel Training (FPI) at the Department of Ecology, University of Barcelona (UB), Spain.

### Publications

#### Peer-review Publications

- (1) Escarmena L., Roca N., García-Paino N., Morguí J.A., Poblador S., Riera J.L., Sabaté S., Sauras-Yera T., Solis-Llarena J., & Sabater F. 2025. Bridging constructed wetlands and riparian buffer zones: A hybrid subsurface flow system for wastewater treatment. *Journal of Water Process Engineering*, 71, 107435.
- (2) Vienne A., Frings P.J., Poblador S., Steinwigger L., Rijnders J., Schoelynck J., Vindusková O., & Vicca S. 2024. Earthworms in an enhanced weathering mesocosm experiment: effects on soil carbon sequestration, base cation exchange and soil CO<sub>2</sub> efflux. *Soil Biology and Biochemistry*, 199, 109596.
- (3) Wieneke S., Pacheco-Labrador J., Mahecha M.D., Poblador S., Vicca S., & Janssens I.A. 2024. Comparing the quantum use efficiency of red and far-red sun-induced fluorescence at leaf and canopy under heat-drought stress. *Remote Sensing of Environment*, 311, 114294.
- (4) Reynaert S., Vienne A., De Boeck H.J., d'Hose T., Janssens I., Nijs I. Portillo-Estrada M., Verbruggen E., Vicca S. & Poblador S. 2023. Basalt addition improved the performance of young grassland monocultures under more persistent weather featuring longer dry and wet spells. *Agricultural Forest and Meteorology*, Volume 340, 109610.
- (5) Fang, C., Bi Q-F., Ye J-S, Poblador S. & Janssens I. 2023. Editorial: Forest soil carbon in a changing world. *Frontiers in Forest and Global Change*, Volume 6 – 2023.
- (6) Colls M., Viza A., ... Poblador S. [n73/86], ..., Romero F. 2023. Impacts of diffuse urban stressors on stream benthic communities and ecosystem functioning: A review. *Limnetica*, 43 (1).
- (7) Vienne A., Poblador S., Portillo-Estrada M., Hartmann J., Ijehon S., Wade P. & Vicca S. 2022. Enhanced weathering using basalt rock powder: carbon sequestration, co-benefits and risks in a mesocosm study with *Solanum tuberosum*. *Frontiers in Climate*, 4:869456.
- (8) Vicca S., Goll D. S., Hagens M., Hartmann J., Janssens, I. A., Neubeck A., Peñuelas J., Poblador S., Rijnders J., Sardans J., Struyf J., Swoboda P., Willem van Groenigen J., Vienne A., & Verbruggen E. 2021. Is the climate change mitigation effect of enhanced silicate weathering governed by biological processes? *Global Change Biology*, 28(3).

- (9) Lupon A., Rodríguez-Lozano P., Bartrons M., Anadon-Rosell A., Batalla M., Bernal S., Bravo A.G., Capdevila P., Cañedo-Argüelles M., Catalán N., Genua-Olmedo A., Guitérrez-Cánovas C., Feio M. J., Lucati F., Onandia G., Poblador S., Rotchés-Ribalta R., Sala-Bubaré A. Sánchez-Montoya M. M., Sebastián M., Zufiaurre A. & Pastor A. 2021. Towards women-inclusive ecology: Representation, behavior, and perception of women at an international conference. *PloS one* 12.
- (10) Ledesma J., Ruiz-Perez G., Lupon A., Poblador S., Futter M.N., Sabater F., & Bernal S. 2021. Future changes in the Dominant Source Layer of riparian lateral water fluxes in a subhumid Mediterranean catchment. *Journal of Hydrology*, 595.
- (11) Pastor A., Poblador S., Skovholt L.J., & Riis, T. 2020. Microbial carbon and nitrogen processes in high-Arctic riparian soils. *Permafrost and Periglacial Processes*, 31:223-236.
- (12) Pastor A., Hernández-del Amo E., Gimenez-Grau P., Fillol M., Pereda O., Flores L., Sanpera-Calbet I., Bravo A., Martín E., Poblador S., Arroita M., Rasines-Ladero R., Ruiz C., del Campo R., Abril M., Reyes M., Casas-Ruiz J.P., Fernández D., de Castro-Català N., Tornero I., Palacín-Lizarbe C., Arce M., Mora-Gómez J., Gómez-Gener L., Monroy S., Freixa A., Lupon A., González-Ferreras A.M., Estévez E., Rodríguez-Lozano P., Solagaistua L., Rodríguez-Castillo T., Aristi I., Martínez A. & Catalán, N. 2020. Early-career coordinated distributed experiments: empowerment through collaboration. *Frontiers in Education*, 5.
- (13) Poblador S., Lupon A., Martí E., Sabaté S., Sabater F. & Bernal S. 2019. Contribution of the invasive nitrogen-fixing tree species, *Robinia pseudoacacia L.*, to nitrogen enrichment of Mediterranean riparian forests soils. *European Journal of Forest Research*, 138 (6).
- (14) Bernal, S., Lupon A., Wollheim W.M., Sabater F., Poblador S., & E. Martí. 2019. Supply, demand, and in-stream retention of dissolved organic carbon and nitrate during storms in Mediterranean forested headwater streams. *Frontiers in Environmental Science*, 7: 60.
- (15) Poblador S., Thomas Z., Rousseau-Gueutin P., Sabaté S., & Sabater F. 2019. Riparian forest transpiration under the current and projected Mediterranean climate: effects on soil water and nitrate uptake. *Ecohydrology* 12:e2043.
- (16) Catalán N., Casas-Ruiz J.P., Arce M. I., Abril M., Bravo A., del Campo R., Estevez E., Freixa A., Giménez-Grau P., González-Ferreras A.M., Gómez-Gener L., Lupon A., Martínez A., Palacón-Lizarbe C., Poblador S., Rasines-Ladero R., Reyes M., Rodríguez T., Rodríguez-Lozano P., Sanpera-Calbet I., Tornero I., & Pastor A. 2018. Behind the scenes: Mechanisms regulating climatic patterns of dissolved organic carbon uptake in headwater streams. *Global Biogeochemical Cycles*, 32: 1528– 1541.
- (17) Poblador, S., Lupon A., Sabaté S. & Sabater F. 2017. Soil water content drives spatiotemporal patterns of CO<sub>2</sub> and N<sub>2</sub>O emissions from a Mediterranean riparian forest soil. *Biogeosciences*, 14: 4195–4208. Citations: 64.
- (18) Nadal-Sala D., Sabaté S., Sánchez-Costa E., Poblador S., Sabater F., & Gracia C. 2017. Growth and water use performance of four co-occurring riparian tree species in a Mediterranean riparian forest. *Forest Ecology and Management*, 396, 132-142.
- (19) Pastor A., Lupon A. Gómez-Gener L., Rodríguez T., Abril M., Arce M.I., Aristi I., Arroita M. Bravo A. G., de Castro-Català N., del Campo R., Casas-Ruiz J.P., Estévez E., Fernández D., Fillol M., Flores L., Freixa A., Giménez-Grau P., Gómez-Gener L., González-Ferreras A.M., Hernández-del Amo E., Martín E., Martínez A., Monroy S, Mora-Gómez J., Palacin-Lizarbe C., Pereda O., Poblador S., Rasines-Laero R., Reyes M., Rodríguez-Lozano P., Ruíz C., Sanpere-Calbet I., Solagaistua L., Tornero I. & Catalán N. 2017. Local and regional drivers of headwater stream metabolism: insights from the first AIL collaborative project. *Limnetica*, 36(1): 67-85.
- (20) Lupon, A., Bernal S., Poblador S., Martí E., & Sabater F. 2016. The influence of riparian evapotranspiration on stream hydrology and nitrogen retention in a subhumid Mediterranean catchment. *Hydrology and Earth System Science*, 20: 3831–3842.
- (21) Chang C.T., Sabaté S., Sperlich D., Poblador S., Sabater F. & Gracia C. 2014. Does soil moisture overrule temperature dependence of soil respiration in Mediterranean riparian forests? *Biogeosciences*, 11, 6173–6185.

#### Book Chapters and Encyclopedias

- (1) Sabater, F., Bernal S., Lupon A., Poblador S., & Martí E.. 2013. Els boscos de ribera. In: D. Bueno (Ed.) *Atlas Ecosistemes dels Països Catalans*, Barcelona, Spain, pp.178–179.

### Popular science articles

- (1) Poblador S., 2023. Tècniques de captura de CO<sub>2</sub> al sòl mitjançant canvis agràrics. *Atzavara: Mesures Paliatives davant la crisi ambiental*. 34, Secció de Ciències Naturals del Museu de Mataró.
- (2) Poblador S., 2019. La Roureda de Can Verdalet, un espai singular amenaçat. *Espiadimonis: Conflicte sociambiental*. 37, Associació hàbitats.
- (3) Poblador S., Fernández-Martínez M., and Sabater F. 2019. Com els arbres expliquen el pas del temps. *Atzavara: Tempus fugit*. 29, Secció de Ciències Naturals del Museu de Mataró.

### **Oral Communications and Posters in International Conferences over the last 5 years**

#### Oral presentations

- (1) Poblador S., Escarmena L., Bautista B., Grunedus A., Martínez-Amigo V., Anaya I., Ninot J.M., Pérez-Haase A., & Sabater F. 2025. Carbon Under Threat: Insights from Grazing Exclusion and Climate Impacts in Pyrenean high mountain peatlands. *EGU*. Vienna (Austria).
- (2) Poblador S., Anton-Pardo M., Bartrons M., Benito X., Bernal S., Bohorquez Bedoya E., Cañedo-Argüelles M., Catalán N., Fernandes I., Freixa A., Genua-Olmedo A., León-Palmero E., Lupon A., Mendoza-Lera C., Pastor A., Rodríguez-Lozano P., Zufiaurre A., & Sánchez-Montoya M. 2024. Is my teaching gender-fair? A self-assessment questionnaire. *EGU*. Vienna (Austria).
- (3) Poblador S., Vienne A., Ijehon S., Verbruggen E. & Vicca S. 2022. The combined effect of basalt and biochar amendments on potato and wheat production in an alkaline soil: increasing soil carbon sequestration while increasing yield? *2nd Iberian Ecological Society Meeting: SIBECOL*. Aveiro (Portugal).
- (4) Poblador S., Verbruggen E., Mariën B., Cottignie I. & Vinduškova O. 2022. Is women underrepresentation affecting career choices of potential young women researchers? *2nd Iberian Ecological Society Meeting: SIBECOL*. Aveiro (Portugal).
- (5) Plenary talk of the Gender & Science Group: Fostering women in Limnology. All speakers: Catalán N., Poblador S., Lupon A., Genua A., Fernandes I., Benito X., Sánchez-Montoya M.M. *2nd Iberian Ecological Society Meeting: SIBECOL*. Aveiro (Portugal).
- (6) Poblador S., Le Noir de Carlan C., Verbruggen E. & Vicca S. 2022. Enhanced weathering in acid and alkaline agricultural soils: greenhouse gas emissions and soil bacterial communities implications. *EGU*. Vienna (Austria).
- (7) Poblador S., Vienne A., Verbruggen E. & Vicca S. 2021. Carbon sequestration through enhanced weathering processes on *Tricum aestivum* production in an acidic and an alkaline soil: yield and N<sub>2</sub>O emissions co-benefits. *Goldschmidt*. Virtual.
- (8) Vienne A., Poblador S., & Vicca S. 2021. Do earthworms stimulate enhanced weathering? Results from a mesocosm experiment. *Goldschmidt*. Virtual.
- (9) Poblador S., Martínez-Sancho E., Menéndez-Serra M., Casamayor E. O., Estiarte M., Lupon A., Martí E., Peñuelas J, Sabaté S. & Sabater F. 2020. Greenhouse gas emissions from a Mediterranean floodplain forest: the role of tree emissions under a changing flooding regime. *EGU*. Virtual.

#### Posters in International Conferences

- (1) Poblador S., Álvarez L., Díaz B., Felip M., Sabater F. Vienne A., & Vicca S. 2024. Enhancing soil carbon sequestration in the parks of the city of Barcelona. *EGU*. Vienna (Austria).
- (2) Poblador S., Le Noir de Carlan C., Vienne A., Steinwider L., Boito L., Verbruggen E. & Vicca S. 2023. Decrease in soil N<sub>2</sub>O emissions from agricultural acid soils through enhanced silicate weathering practices: a study case of beans crop. Wageningen Soil Conference (The Netherlands).
- (3) Poblador S., Boito L., Vienne A., Sabaté F., & Vicca S. 2023. The green areas of the city of Barcelona as carbon sinks: a pilot study. Wageningen Soil Conference (The Netherlands).

## Academic and Community Involvement

- 2024– Early-career Representative (ECS) for the Biogeoscience Division of the European Geoscience Union (EGU).
- 2020– Member of the “Diversity and Inclusion Commission” of the Iberian Society of Ecology (SIBECOL)
- 2018– Member of the “Gender and Science” group of the Iberian Association of Limnology (AIL).

## Teaching innovation materials

Participation in high education materials within the group Gender&Science AIL:

- 2020 ***Limnoedu: free teaching resources to use for increasing the visibility of top female limnologists and raising awareness of the past and current situation of women in this scientific field.*** Output: teaching evaluation and slides to increase visibility of scientific women on limnology. Funded by the European Geoscience Union (Higher Education teaching grant awarded to Gender & Science AIL Group to develop the project Gender). Teaching auto-evaluation and material created: <https://www.genderlimno.org/teaching-resources.html>
- 2023-2025 **AUMENTA: Climate emergency and water: augmented illustrations with a woman's voice.** Output: Illustrated stories to explain the impacts of climate change on freshwater ecosystems from an ecofeminist perception. Each story has its didactic unit associated to interact with the students. Funded by the Spanish Ministry of Science and Innovation (FECyT). <https://www.genderlimno.org/aumenta1.html>
- 2022 – 2024 **Augmented ecofeminisms: Women, Water and climate emergency (Ecofeminismos aumentados: MUJER, Agua y emergencia Climática - ¡MUAC!).** Output: Exhibition of 8 panels combining scientific information, art and audiovisuals to increase awareness on the effects of the climate emergency on water and women. Funded by the Spanish Ministry of Equality (Grant for postgraduate courses in feminist and gender studies and University activities related to equality).