

Cristina Buendía Forés

9888 Jasper Ave, 9th Floor
T5J 5C6-Edmonton, Canada
cristina.buendia-fores@gov.ab.ca

CAREER

Cristina Buendia has a BSc in Environmental Sciences from the University of Barcelona, an MSc in Soil and Water Management from the University of Lleida and a PhD in Geography from the University of Aberdeen. Her main areas of work focused on the interaction between fluvial processes and benthic invertebrates, and the effects of land use and climate change on the hydrological regime of Mediterranean rivers.

She also has experience in the non-profit sector in Canada, providing technical advice on a variety of projects related to hydrological and water quality assessments, and participating in community outreach and stakeholder engagement initiatives. Cristina later joined the Government of Alberta as a limnologist, where she worked closely with regulators, regional planners and policy specialists to support departmental initiatives with respect to the quality of surface water resources. She is currently working as an Aquatic Scientist with the Environmental Monitoring and Science Division, where she focuses on an extensive water monitoring network to evaluate changes and drivers of water quality and aquatic ecosystem health in the North Saskatchewan River.

PUBLICATIONS

- Herrero, A., **Buendia, C.**, Bussi, G., Sabater, S., Vericat, D., Palau, A., Batalla, R. J. 2017. Modeling the sedimentary response of a large Pyrenean basin to global change. *Journal of Soils and Sediments*, 1-14.
- Buendia, C.**, Herrero, A., Batalla, R.J., Sabater, S. 2016. An appraisal of the sediment yield in western Mediterranean river basins. *Science of the Total Environment*, 572: 538-553.
- Gibbins, C.N., Vericat, D., Batalla, R.J., **Buendia, C.** 2016. Which variables should be used to link invertebrate drift to river hydraulic conditions?. *Fundamentals and Applied Limnology*, 187:191-205.
- Buendia, C.**, Bussi, G., Tuset, J., Vericat, D., Sabater, S., Palau, A., Batalla, R.J., 2015. Effects of afforestation on runoff and sediment load in an upland Mediterranean catchment. *Science of the Total Environment*, 540: 144-157.
- Buendia, C.**, Batalla, R.J., Sabater, S., Palau, A., Marcé, R., 2015. Runoff trends driven by climate and afforestation in a Pyrenean basin. *Land Degradation and Development*. DOI:10.1002/ldr.2384
- Buendia, C.**, Sabater, S., Palau, A., Batalla, R.J., Marcé, R., 2015. Using equilibrium temperatura to assess termal disturbances in rivers. *Hydrological Processes*. DOI: 10.1002/hyp.10489.
- Buendia, C.**, Vericat, D., Batalla, R.J., Gibbins, C.N. 2015. Temporal dynamica of sediment transport and transient in-channel storage in a highly erodible catchment. *Land Degradation and Development*, DOI: 10.1002/ldr.2348.
- Buendia, C.**, Gibbins, C.N., Vericat, D., Batalla, R.J. 2013. Effects of flow and fine sediment dynamics on the turnover of stream invertebrate assemblages. *Ecohydrology*. DOI: 10.1002/eco.1443

Buendia, C., Gibbins, C.N., Vericat, D., Batalla, R.J. 2013. Reach and catchment scale influences on invertebrate assemblages in a river with naturally high fine sediment loads. *Limnologica*, 43, 362-370.

Buendia, C., Gibbins, C.N., Vericat, D., Batalla, R.J., Douglas, A. 2013. Detecting the structural and functional impacts of fine sediment on stream invertebrates. *Ecological Indicators*, 25, 184-196.

Buendia, C., Gibbins, C.N., Vericat, D., López-Tarazón, J., Batalla, R.J. 2011. Influence of naturally high fine sediment loads on aquatic insect larvae in a montane river. *Scottish Geographical Journal*, 127, 315-334.

CONFERENCES AND WORKSHOPS

Flowing Waters: Water Quality and Transboundary issues in the Saskatchewan River Basin. Leduc (Canada). October 2017. Oral presentation: *Drivers of lake level trends in central Alberta.*

Alberta Lake Management Society (ALMS) Annual Workshop. Lac La Biche (Canada). September 2017. Oral presentation: *Lake Level trends in central Alberta.*

North Saskatchewan Watershed Alliance (NSWA) Water Supply Forum. Edmonton (Canada). October 2016. Oral presentation: *An evaluation of landscape change and climate effects on water supply in Mediterranean Rivers.*

4th Iberian Ecological Congress. Coimbra (Portugal). June 2015. Poster: *Using Equilibrium Temperature to detect thermal disturbances in rivers.*

9th International Symposium on Ecohydraulics. Vienna (Austria). September 2012. Oral presentation: *Spatial scale influences on invertebrate community structure in a river impacted by fine sediments.*

British Hydrological Society's 11th National Symposium: Hydrology for a changing world. Dundee (Scotland). July 2012. Poster: *Structural and functional effects of fine sediment on invertebrate assemblages.*

COURSES

IberWQ: 2D Hydraulic modelling: Water Quality module. Polytechnic University of Catalonia (UPC), Spain – October 2018.

Integrative and Adaptive Water Resources Planning, Management and Governance- McGill University, Canada- January 2018.

Iber: 2D Hydraulic modelling: Initiation course- Polytechnic University of Catalonia (UPC), Spain - July 2017

Hydraulic modelling with Hec-Ras and GeoRas – TYC-GIS: Specialized technical training, Spain- December 2015

Sediment transport and associated fluvial processes. Barcelona (Spain). Organised by the University of Lleida and the Spanish National Research Council (CSIC). October 2012.

An introduction to more advanced statistical methods. Aberdeen (Scotland). Organised by the Institute of Biological and Environmental Sciences of the University of Aberdeen. April 2012.

An introduction to R. Aberdeen (Scotland). Organised by the Institute of Biological and Environmental Sciences of the University of Aberdeen. March 2012.