

Transdisciplinary Environmental Research

Catharina Landström

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A Practical Approach

Three conversations with
Sarah Whatmore and Paul Whitehead
Eric Sarmiento and Mohammad
Mortazavi-Naeini
Gemma Coxon and Charlotte Hitchmough

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BIOGRAPHICAL NOTES

Gemma Coxon is a research associate working at the University of Bristol. Her work focuses on the development and application of national scale hydrological models to simulate and predict river flows across the UK. On the MaRIUS project, Gemma is working on enhancing the representation of drought processes within these models, investigating the impact of abstractions on low flow and exploring future drought risk in the UK.

Charlotte Hitchmough lives in Marlborough and enjoys the Kennet as a river to walk along and a feature that gives character to the towns and villages in the valley. Through her work for Action for the River Kennet, she has been active in campaigning to reduce water abstraction and promote water efficiency. In the Kennet ECG, she provided the voice of a local resident.

Catharina Landström is a Research Fellow in the School of Geography and the Environment at University of Oxford. Working on the MaRIUS project from 2014 to 2017, she focussed on mapping drought knowledges and on developing transdisciplinary methodologies to promote local hydroresilience. In 2007–2010, she worked in the Understanding Environmental Knowledge Controversies project: The case of flood risk management. Specialist in social studies of science her research interests include: environmental knowledge, science and expertise in society, environmental computer modelling and public engagement with environmental

science and governance. In the Kennet ECG, she took on the role as digital scribe, making video and audio recordings of the meetings.

Mohammad Mortazavi-Naeini is a postdoctoral researcher with expertise in water resources modelling. His main research interest is about addressing deep uncertainties in water resources planning. He received his Ph.D. from the University of Newcastle in Australia in water engineering and he is a conjoint fellow of the University of Newcastle. He is currently part of the MaRIUS project, working to develop catchment and national scale models and to assess water systems vulnerability under drought and water scarcity conditions given future uncertainty associated with climate change and other factors.

Eric Sarmiento is a cultural geographer whose work examines the intersection of urban development with cultural dynamics and environmental issues in the city. Other research interests include social theory and philosophy of science. Currently an assistant professor in the Department of Geography at Texas State University, he worked as a postdoctoral researcher on the MaRIUS Project at the University of Oxford in 2015–2016. He holds a Ph.D. and MA from Rutgers, the State University of New Jersey, and a BA from the University of Oklahoma.

Sarah Whatmore is Professor of Environment and Public Policy and Academic Champion for Public Engagement with Research at the University of Oxford, since January 2017 she is Pro-Vice Chancellor (Education). She is an elected Fellow of the British Academy and advises the UK government and parliament as a member of the Science Advisory Council to the Department for Environment, Food and Rural Affairs (Defra). She is a member of the Science Advisory Group established to advise the Cabinet Office's National Flood Resilience Review (2016) and of the Board of the Parliamentary Office of Science and Technology. Her research focuses on understanding the relationship between science and democracy in terms of the treatment of evidence and role of expertise in environmental governance, and their growing reliance on computer modelling techniques. She has a commitment to experimental and collaborative research practices that bring the different competences of social and natural scientists into play with those of diverse local publics living with environmental risks and hazards. Her published work includes influential books such as *Hybrid Geographies* (2001), *Using Social Theory* (2004) and *Political Matter* (2010).

Paul Whitehead has over 35 years' experience of research on water resources, water quality modelling and climate issues, with a specialist interest in the development of dynamic, stochastic and planning models, integrating hydrology, water quality and ecology. Paul is currently director for the NERC Macronutrient Cycles Programme and a Professor at the University of Oxford. He has been successful in managing 47 projects funded by NERC, EPSRC, ESRC, EU, EA and a range of Government Departments such as DEFRA, DFID and BIS. Paul has served on several senior Government and NERC committees, such as the Thematic Programme Planning committees for the River Ecology Programme, Pollution Pathways Programme, Land Use Research Programme, Joint NERC/AFRC Agricultural Pollution Programme, NERC LOIS Programme and Environmental Diagnostics. He has published widely, with 216 published papers as well as being the guest speaker at a wide range of conferences and meetings.