

Title of the symposium:

Working with Natural Processes: Co-benefits at the Landscape Scale

Detail of organizer(s):

Responsible

Name:	Jessica
Surname:	Neumann
Email	j.l.neumann@reading.ac.uk
Organisation/Affiliation:	University of Reading / International Association for Landscape Ecology UK Chapter (ialeUK)
Telephone:	+44 118 378 7285 / +44 7725 613 199
Country:	UK
Address:	Geography and Environmental Science, Whiteknights Campus, Reading, RG6 6AB

Co-organizer(s)

Co-organizer

Name:	Chris
Surname:	Short
Email:	cshort@glos.ac.uk
Organisation/Affiliation:	CCRI, University of Gloucester
Address:	Oxstalls Campus, Gloucester, GL2 9HW
Country:	UK

Co-organizer

Name:	Emma
Surname:	Shuttleworth
Email:	emma.shuttleworth@manchester.ac.uk
Organisation/Affiliation:	University of Manchester
Address:	Geography, School of Environment, Education and Development, Oxford Road, Manchester, M13 9PL
Country:	UK

Symposium abstract

Working with Natural Processes (WWNP) aims to protect, restore and emulate the natural functions of the landscape to reduce flood risk whilst delivering co-benefits to the wider environment. Measures include targeted woodland and hedgerow planting, upland gully blocking, peat moorland restoration, changes to soil and land management practice, building woody dams and installing bunds and ponds amongst others. WWNP is most effective when landscape scale processes are considered and local communities and stakeholders are engaged in the choice and implementation of different measures. When this is achieved, WWNP not only reduces flood risk for society, but delivers benefits in areas such as biodiversity, agricultural productivity, climate change mitigation and human well-being.

In this symposium we invite oral and poster presentations that address the current evidence, opportunities and challenges of WWNP at the landscape scale from research, policy and practice viewpoints. We welcome presentations that fall within the following themes:

- Application – examples of past, current and future WWNP projects being undertaken at any location worldwide.
- Co-benefits – looking at the wider benefits of WWNP beyond reducing flood risk e.g. resilience to climate change, supporting biodiversity, reducing soil erosion, community cohesion, health and wellbeing.
- Co-production – examples of where local communities and stakeholders have been involved in the design and implementation of WWNP measures and the challenges and

opportunities that this can bring.

- Methods – different approaches for evaluating and validating the effectiveness of WWNP. For example, modelling techniques, use of observational and field data and participatory approaches. What do ‘successful’ WWNP interventions look like and how can you measure success?
- Scales, types and magnitude – evidence as to the effectiveness of WWNP measures across different scales and in different landscape types and for flood events covering a range of return periods.
- Landscape design and policy – examples of how evidence from WWNP may be used to inform future landscape design, conservation and management, as well as local and national planning policy. What are the best governance arrangements to underpin WWNP projects/programmes?

How your symposia will improve landscape ecology science?

Working with Natural Processes (WWNP) takes many forms and is applied at multiple scales across a range of different landscape types including uplands, lowlands, urban, agriculture, rivers, estuaries and coasts. While the principal aim is to reduce flood risk (a serious and increasing hazard worldwide), there is increasing focus on ensuring that measures deliver wider benefits in the environment including supporting biodiversity, climate change resilience and societal wellbeing.

WWNP seeks to understand the processes, interactions and relationships that exist between the physical, biological and cultural components of landscapes across space and time and this appeals directly to the interdisciplinary nature of landscape ecology. The methods and approaches contribute to those used in landscape ecology i.e., understanding the importance of landscape pattern and process and the value of co-production and stakeholder engagement as well as the potential to impact on local and national planning policy.

Our symposium integrates landscape and hydrological science and provides an excellent opportunity to see how landscape ecology theory and practice is being used more widely to deliver co-benefits and reduce risk at the landscape scale.

Broad thematic areas

Broad thematic areas 1st choice: Green and blue infrastructures

Broad thematic areas 2st choice: Landscape ecosystem functions and services

Free Keywords

Working with Natural Processes; co-benefits; landscape scale; landscape planning; stakeholders

Outcomes of symposium

Special issue in a scientific journal (already negotiated) (Landscape Ecology)