



1st International Conference

on Integrative Sciences and sustainable development of rivers
June 26-28, 2012 - Lumière Lyon 2 University - France

WORKSHOP 1

1. Workshop Title: Estimating and monitoring the effects of river restoration measures
2. Pilot: CIRF
3. Workshop presentation:

The workshop is organised by CIRF, the Italian Centre for River Restoration, within the activities of the FP7 project WaterDiss2.0 (www.waterdiss.eu), aiming at disseminating the results of EU funded research on water, in order to speed-up their transfer and application by policy makers and water managers.

The event will be carried out with the collaboration of representatives from several recently concluded research projects, among which the FP7 WISER, the FP6 EURO-LIMPACS and AQUAMONEY, the IWRM-Net RIPFLOW have already confirmed their participation. Through the presentation of their main results, the state-of-the-art on the evaluation of river restoration benefits will be explored under different angles, from ecological status modifications to flood risk mitigation and other ecosystem services.

Participants will have the opportunity to discuss directly with researchers on assessment frameworks and analysis of real case studies, and on how the results of recent research can help improving planning, implementation and monitoring of river restoration actions.

After a presentation of single projects, a moderated discussion will follow, open to all participants. The event targets mainly River basin Authorities and other administrations involved in river basin planning and management, national and regional agencies responsible for river monitoring, river restoration practitioners.

4. Number of participants: around 40
5. Schedules: Monday 25th June, from 12pm to 5.30pm
6. Registration rate: 40 € / person
7. Language: English
8. Preliminary programme (see on reverse)





W1- Estimating and monitoring the effects of river restoration measures

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In particular the workshop will try to stimulate the discussion on the following, closely interconnected topics, highlighting present knowledge, available tools and further research needs.

1) The ecological effects of river restoration. Our knowledge on cause-effect relationships between environmental pressures and aquatic communities is based mainly on past alteration and degradation processes, while the record of cases where the effects of restoration have been monitored and assessed is still limited, although increasing. What kind of general results can we draw from these first structured reviews? To what extent reversibility of degradation - a common underlying assumption in restoration ecology - is actually verified? Are there key limiting factors for recovery of specific communities, to be duly taken into account when designing restoration measures? What are the main uncertainties affecting the assessment?

2) The use of models to predict the effects of river restoration measures

Hydraulic models have been used for decades to support planning and design of flood defence infrastructures in rivers; more recently, water quality models have been developed to support actions on point and diffuse pollution sources. We are now called to plan and manage river basins with a wider perspective, including ecological goals. What kind of modelling tools are available to predict the effects of restoration measures on biological and hydromorphological quality elements? What are the main gaps still to be filled? What are the main needs from the perspective of river basin managers?

3) The ecosystem services approach to support river restoration schemes

Despite legislative obligations to fulfil ambitious ecological goals for EU water bodies, river restoration measures often face strong opposition, due to a wide array of potentially conflicting interests. It is therefore of the utmost importance to assess all the benefits of restoration, at appropriate space and time scales, in order to support the planning process. In several cases potential economic benefits can be a primary driver for the development of river restoration schemes. What theoretical and applied experiences have been developed on this subject? To what extent are decision makers and river basin managers willing to integrate the approach? What is the necessary level of detail?

In relation with these topics, participants will have the opportunity to discuss directly with researchers on assessment frameworks and analysis of real case studies, and on how the results of recent research can help improving planning, implementation and monitoring of river restoration actions. After a brief introduction and the presentation of pertinent projects, a moderated discussion will follow, open to all participants.

The event mainly targets river basin authorities and other administrations involved in river basin planning and management, national and regional agencies responsible for river monitoring, river restoration practitioners.





Preliminary programme

11.30 - 12.30 Welcome and registration

12.30 - 13.15 Lunch

13.15 – 13.30 Introduction to the workshop and background on the WaterDiss2.0 project- CIRF

13.30– 15.30 1) Ecological effects of river restoration.

Introduction

Supporting presentations:

"Ecological assessment of running waters: do macrophytes, macroinvertebrates, diatoms and fish show similar responses to human pressures? - results from the WISER project".

Anahita Marzin - IRSTEA, National Research Institute of Science and Technology for Environment and Agriculture (France)

From: WISER Project (FP7)

"Re-meandering of lowland streams in North-western Europe: ecological effects"

Nikolai Friberg - Danish National Environmental Research Institute (NERI)

From: EURO-LIMPACS Project (FP6)

Moderated discussion

15.30 -16.30 2) The use of models to predict the effects of river restoration measures

Introduction

Supporting presentations:

"Mathematical modeling of riparian vegetation"

Félix Francés – University of Valencia

From: RPFLOW Project (IWRM-Net)

Moderated discussion

16.30 - 17.30 3) The ecosystem services approach to support river restoration schemes

Introduction

Supporting presentations:

"The estimation of non-market benefits of ecological restoration of heavily modified river stretches along the Danube River"

Michael Getzner -Vienna University of Technology

From: AQUAMONEY Project (FP6)

Moderated discussion

17.30 - 17.45 Conclusions

