



# European Centre for River Restoration NEWSLETTER – January 2009

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RIVER RESTORATION 2008 Proceedings of the 4th ECRR International Conference on river restoration (Venice, 16-19 June 2008)

RIVER RESTORATION CENTRE 10<sup>th</sup> ANNUAL NETWORK CONFERENCE University of Nottingham, Nottingham, 1<sup>st</sup>-2<sup>nd</sup> April 2009

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ECRR SEMINAR "Ecological River Restoration in South European Countries"

The presentations are online in the ECRR website



The presentations given at the ECRR seminar "Ecological River Restoration in South European Countries", that took place in Madrid (Spain) on 13-14 November 2008, are now online and freely downloadable. The ECRR wishes to thank all the speakers for their contributions, which are listed below:

- Bart Fokkens, ECRR chairman (Rijskwaterstaat – National Centre for Water Management, The Netherlands)
   <u>A network of practitioners of</u> <u>ecological river restoration</u>
- Jesus Yague (Spanish Ministry of Agriculture & Environment) <u>The Spanish National River</u> <u>Restoration Strategy</u>

 Andrea Nardini (Italian Centre for River Restoration)
 <u>Reno River Rehabilitation Scheme</u>
 "Reno Alive"

 Joan Verdù (Agència Catalana de l'Aigua)
 Llobrega River: degradation and rehabilitation

- Lidia Arenillas (Confederación Hidrográfica del Tajo)
   Dam removal in river Manzanares – facts and conclusions for river restoration concepts
- Luis Manuel Martínez (Guadalajara University) Watershed Management and river restoration in Mexico. Case study from river Ayuquila
- Josu Elso Navarra Government <u>Remeandering River Arga:</u> "Restoration practice in Ebro River <u>Basin - LIFE Project"</u>

All the presentations are also downloadable from the ECRR Seminar page.

After the ECRR Seminar, a field trip was organized to some restoration sites at River Arga (Navarra), involved in a LIFE project.



More information about the project are available in the LIFE GERVE website.











## TOP NEWS

<u>"River Basins - from</u> <u>Hydrological Science to</u> <u>Water Management: Ninth</u> <u>Kovacs Colloquium Report,</u> <u>6-7 June 2008, UNESCO,</u> Paris"

The discussion and debate at the Colloquium strongly supported these recommendations and also raised further questions and unsolved problems in ongoing hydrological research and water management.

## <u>Germany: Iron as a new</u> <u>water "pollutant" in Central</u> <u>Germany</u>

The River Pleisse, the major tributary of the River Weisse Elster in the Central-German industrial region, used to be excessively polluted mainly by industrial wastewater from coalprocessing, textile, and leather industries before the political change in 1989. Since then, anthropogenic pollution has significantly decreased due to close-down of industrial plants and upgrading of wastewater treatment plants. Nevertheless, the water in the lower course of the river has remained turbid and brown. This causes concern in the city of Leipzig, where efforts are made to reconvert the river branches and mill races that had been canalized underground into open rivers and canals.

The cause of this phenomenon is groundwater pumping in the large brown-coal open-cast mining district south of the city. The total iron content of the river water is influenced by the

# RIVER RESTORATION CENTRE 10th ANNUAL NETWORK CONFERENCE

University of Nottingham, Nottingham, 1st – 2nd April 2009 (optional site visit on 3rd April)

River Restoration Benefits - Past, Present & Future

This year's presentations will cover:

New tools for restoration; FRM and ecological gain; Living with rivers and floodplains; Improving spatial connectivity; Hydromorphology; Flow restoration; Social and community benefits; Potential for restoration; Climate proofing; Where do we go from here; Legal policy and project frameworks; Strategic restoration and management.

The main aim of this conference is to provide a forum for discussion. Make this your opportunity to voice your opinions on how we can deliver sustainable river restoration.

Exact conference cost will be confirmed shortly but full residential fee for RRC members will be approximately £285. Day rates will also be available.

Booking will commence in 2009. Discretionary discounted places will be available for small NGOs, Trusts, students and similar organisations.

To find out if you qualify please contact the Centre.

For further information, visit the RRC website: www.therrc.co.uk/rrc conferences.php

This year's conference is sponsored by:





For more information about the RRC, this conference and details of previous events refer to: <u>www.therrc.co.uk</u>, email at: <u>rrc@therrc.co.uk</u> or call +44 01234 752979





amount of suspended solids in the water and by the concentration of iron on these particles. It depends on direct inputs as well as on the hydrological situation.

## Water Footprint Network Launched

On 16 December 2008, the Water Footprint Network was launched at the Corporate Water Footprint Conference, in London (UK). Scientific Director Arjen Hoekstra presented the partner organisations and companies. This initial group organisations have fully endorsed the mission of the Water Footprint Network. The Water Footprint Network and its partners strive to develop and apply the Water Footprint to support the transition to sustainable and equitable water use and management globally.

### <u>Government's Commitment to</u> <u>Flood Risk Management to</u> Continue

In 2007, CIWEM called for the UK Government to give the Environment Agency responsibility for a national overview of all flood risk planning, Following the Government's recent response to the Pitt Review of the summer 2007 floods, CIWEM is pleased to see that the Government has heeded this advice.

More news are available in the <u>news section</u> of the ECRR website.

# News from the newsletter "Science for Environment Policy", a service from the European Commission

#### MODIFYING URBAN RIVERS TO INCREASE BIODIVERSITY (Issue 134)

Urban rivers are typically heavily-engineered and polluted with degraded habitats. They are therefore a priority for biodiversity restoration. Research suggests that relatively simple modifications to river walls may potentially encourage biodiversity by significantly improving habitats for plants and animals.

The EU's Water Framework Directive<sup>1</sup> requires good ecological status in surface waters by 2015, and as such it is important to encourage biodiversity in rivers and waterways. One way of achieving this is to alter the structure of a river. Naturalistic landscape features, such as meanders, are not usually an option in high-density, urban settings, where flow regulating structures are needed for flood protection.

In such confined waterways, river walls may be the most stable and accessible habitats available to plants and invertebrates. Little is known of current river wall ecosystems, which include a mixture of land and river species, but the research suggests that the more complex the surface of the wall is, the more abundant and diverse array of species it can support.

The study examined the River Thames in the UK. Parts of this were once virtually devoid of life, but after 50 years of recovery, is now one of the cleanest urban waterways in Europe. Ecologically-improved areas at the upstream and downstream ends are separated by a heavily-engineered section that runs through central London.

Walls and shoreline along a 2km stretch of this heavily-engineered section of the river were sampled. In general, the walls supported more species than the mud banks, although concrete walls and sheet piling (the most uniform and non-complex surfaces) supported fewer, or no, species. Weathered brick or boulder walls, with rough and complex surfaces that trap water and organic material, were the most biodiverse habitats.

River walls with an urban defence role are frequently maintained and replaced, and the researchers found that the species living in these habitats had adapted to disturbance and none were rare or endangered. Such communities may provide valuable ecological connectivity in sections where habitats are sparse. Once established, communities can build more habitat complexity and biodiversity.

The authors report that adding ledges and timber frames to bare walls encouraged plant growth. They call for a series of similar trial installations of organic material and sediments on walls in urban river sections, to be assessed for habitat development and exploitation. If successful, ecologists and engineers could then collaborate to design materials and structures that are effective and visually-pleasing ecological habitats.

The goodwill of engineers, landowners and river managers is needed for the success of such trial developments. River managers may be unwilling to modify walls, to avoid causing damage or instability and maintain engineering access. Significant structures may also impede river traffic or flow. However, if well designed, modifications can be expected to counter these problems and form a valuable part of wider urban regeneration schemes.

<sup>1</sup>See: <u>http://ec.europa.eu/environment/water/water-framework/index\_en.html</u>

Additional information: LIFE has co-funded a number of projects developing best practices for improving the ecological status of rivers. For more information, view the LIFE Focus brochure LIFE and Europe's rivers or the Rivers thematic section on the LIFE website.

Source: Francis, R.A. and Hoggart, S.P.G. (2008). Waste Not, Want Not: The Need to Utilize Existing Artificial Structures for Habitat Improvement Along Urban Rivers. Restoration Ecology. 16: 373-381.

Contact: Robert.Francis@kcl.ac.uk





## <u>EVENTS</u>

<u>Regional Workshop on</u> <u>Water Vision</u> 26 January 2009 – Vienna, AUSTRLA

World Wetlands Day 2009 - The 2009 World Wetlands Day Theme is: "Upstream - Downstream" -Wetlands connect us all 2 February

<u>River Restoration Course</u> 3/4 February – New Forest, Hampshire UK

<u>Annual Stream Restoration</u> <u>Design Symposium</u> 3/5 February – Skamania Lodge in Stevenson, Washington, USA

World Wetlands Day 2009 10 February 2009 – London, ENGLAND

#### <u>Aquaterra 2009</u> 10/12 February – Amsterdam, THE NETHERLANDS

IWRM-Net second trans-European Water research management conference: Bridging the Sci-Pol gap? 11/12 February – Brussels, BELGIUM

<u>Water Education Workshop</u> 26/27 February 2009 – Delft, THE NETHERLANDS

# STREAM - PROJECT SEMINAR AND SITE VISITS June 23-25th 2009 Salisbury, England

2 day seminar/site visits to demonstrate and share the information and knowledge gained during this project and to draw on expertise gained from other projects and the EU, especially in relation to the Natura 2000 network and the Water Framework Directive. UK and EU river restoration managers, competent authorities and academic institutions will be invited to attend. To register your interest in attending, please contact Elaine Swiffen (elaine.swiffen@naturalengland.org.uk).

More information available here.

# SER SUMMER SCHOOL - RESTORATION ECOLOGY 2009

In summer 2009, a 5-day summer school programme on "Species introduction and management of biodiversity in restoration projects" will be held at the University of Münster under the auspices of the Society of Ecological Restoration Europe (SER Europe). This course is primarily intended for PhD students who work in restoration ecology and related fields.

The programme includes lectures of specialists to provide theoretical background, field work and excursions to train practical research skills and learn about restoration projects on-site, as well as short presentations of research projects by the participants.

Thus, the course will provide students with a general overview on restoration ecology as well as detailed information on projects, techniques and skills. It will also give a frame for intensive exchange between participants and lecturers.

This event will be takes place between 29th of June - 3rd of July 2009, at the University of Münster, Germany.

More information about the event are available <u>here</u>.

# A NEW EC BROCHURE "EU RESEARCH FOR THE ENVIRONMENT 2007-2013"

This brochure summarises environmental research funded by the European Union and is divided in two parts. The first provides the context of environmental research - the historical roots and the political framework as well as an introduction to environmental research in the Seventh Framework Programme (FP7), under the "Environment (including climate change)" theme, an ambitious research programme. The second part gives an overview of the 10 research the "Environment priorities within (including climate change)" research theme, and highlights some of the most successful projects in environmental research

The brochure will be available soon from the <u>http://bookshop.europa.eu</u> website, the references are EUR 23472, ISBN 978-92-79-09386-9





<u>Climate Change: Global</u> <u>Risks, Challenges and</u> <u>Decisions, International</u> <u>scientific congress on climate</u> <u>change</u> 10/12 March – Copenhagen, DENMARK

<u>5th World Water Forum</u> 16/22 March – Istanbul, TURKEY

<u>Final Conference on River</u> <u>Basin Management:</u> <u>Processes, data, future</u> <u>scenarios</u> 25/27 March – Tübingen, GERMANY

Law of Water Management in the Mediterranean – Past, <u>Present, Future</u> 25/29 March – Florence and Montecatini Terme, ITALY

<u>Improving the ecological status</u> of fish communities in inland waters - International <u>Symposium and EFI+</u> <u>Workshop</u> 30 March – 3 April 2009 – Hull, ENGLAND

# Ecohydrology: Processes, Models and Case Studies



S. E. Jorgensen (Editor)

Ecohydrology is an emerging new subdiscipline which links elements of ecology with hydrology at all points in the water cycle, ranging scale from water-plant in physiological relationships to whole catchment water-ecosystem processes. This book pays most attention to the larger scales of ecohydrology, emphasising the use of this tool in striving towards the goal of sustainable water management. Authors from Eastern as well as Western Europe; from America, Australia and South Africa, give a broad global context. 352 pages

Publisher: CABI Publishing (December 2008) Language: English ISBN-10: 1845930029 ISBN-13: 978-1845930028

Breathing LIFE into greener businesses: Demonstrating innovative approaches to improving the environmental performance of European businesses

Europe's businesses have an important role to play in ensuring a sustainable future for the EU's environment and the economy. This LIFE-Focus brochure showcases successful LIFE initiatives supporting companies that have taken proactive measures to strengthen their environmental performance. It shows how eco-innovation can be good for business and good for the environment at the same time.



Amur-Heilong River Basin



It is strange that the Amur-Heilong River is still unknown to the modern world, being one of the 10 largestrivers on Earth. Even its name conveys mystique and legend from historic times. European world maps use thename Amur, whereas China uses the name Heilongjiang, or "Black Dragon River", for the same river.





BECOME A MEMBER!
Joining the ECRR is FREE!
Acting as an international network the ECRR is pleased to get contributions from its members: they are all very welcomed to provide us information on projects, events, news, training courses, etc. The ECRR newsletter, for example, is thought as a tool (available to all members) for advertising to an international platform the outcomes of the project, important events worldwide, new publications, etc. As a member of the ECRR, you will: - keep on receiving a monthly newsletter with the most recent international information related to river restoration (conferences,
<ul> <li>projects, policy document, funding opportunities);</li> <li>have the opportunity to share your experiences and spread the results of your projects;</li> <li>become a part of a network of people and institutions involved in river restoration and sustainable river management at European level, find partners for your project proposals and develop joint activities;</li> </ul>
To Become a member of the ECRR fill in the <u>application form</u> in our website.
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