

# NEWSLETTER ECRR

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*European Centre for River Restoration*

## From the editors

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This is the second newsletter from the European Centre for River Restoration (ECRR). Since the first newsletter the concept for the ECRR has been developed further and it has now been decided to have a constituting meeting (see below).

An important activity of ECRR is distribution of information and this newsletter will be one of the

measures. Consequently the newsletter will appear on a regular basis.

One of the intentions with the newsletter is to enable as many persons working with river restoration as possible to air their views. You are thus invited to contribute in the river restoration debate by submitting contributions to the newsletter

editorial office at the ECRR.

Contributions could describe new projects of innovative or general interest, viewpoints and debating points on river restoration, informations on coming conferences, new books or videos on river restoration, etc. Contributions should be in English.

## European Centre for River Restoration

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The European Centre for River Restoration (ECRR) was established in 1995 as part of a joint demonstration project between Denmark and the UK.

The main aim of the ECRR is to exchange knowledge and experience on river restoration and thereby enhance restoration of rivers and their riparian areas as an integral part of sustainable water management in as many European countries as possible. Issues could include:

- Monitoring the effects of river restoration (environmental, economic, public perception, etc.);

- Technical solutions used in river restoration;
- Identification of funding mechanisms;
- Education and training;
- Research;
- Strategies in river restoration.

During the last year the further development of the Centre has been discussed by:

- National Environmental Research Institute (NERI), Denmark;
- Institute for Inland Water Management and Waste

Water Treatment (RIZA), The Netherlands;

- The River Restoration Centre (RRC) and Environment Agency (EA), UK;
- German Association for Water Resources and Land Improvement (DVWK), Germany.

### First enquiry

In September a first enquiry to potential participants of the Centre was forwarded to 167 persons or institutions in 38 European countries.

To gain knowledge of the interest in the ECRR, a questionnaire was attached to the induction letter in which the potential participants were asked of their or their institutions interest in participating in the ECRR.

### **The answers**

The answers from the questionnaire were convincing and supports the ideas of establishing the ECRR. There is no doubt an interest in the establishment of a European Centre for River Restoration. Of the 167 questionnaires sent out 89 were returned. Representing 29 countries 78 gave an affirmative response that they had an interest in the ECRR and would be interested in participating.

33 indicated that their potential involvement could be as a member state representative whereas 32 others indicated that they intended to participate as one of several national members. 64 intend actively providing information on experiences etc. in the future.

In the questionnaire the recipients were further asked what aspects of river restoration they believe they can most contribute to the ECRR-network, and how they hoped the ECRR-network will help them.

### **Many aspects covered**

By the answers given, it seems that practically all aspects associated to river restoration could be covered by the ECRR-network consisting of the institutions and persons having answered the questionnaire.

Together the network will possess knowledge on:

- Different methods of river restoration;
- River restorations in rivers of different sizes - from the smallest to the largest;
- River restoration in rivers of different geographical regions throughout Europe;

- Restoration of wetlands;
- Management;
- Flood protection;
- Multi-disciplinary basic science of river morphology, ecology, etc.;
- Educational experiences;
- Economical experiences;
- Cost/benefit experiences;
- Human attitudes to river restoration;
- How to work together with local authorities and landowners;
- Classification and evaluations of rivers;
- GIS-analysis and mapping;
- Co-operation with other international organisations working with rivers.

### **Future work for the ECRR**

According to the answers from the questionnaire the ECRR should work on:

- Raising general awareness of rivers and river restoration;
- Exchanging of experience and philosophy;
- Elaborating common strategies ;
- Developing collaborative research opportunities;
- Helping to implement new projects;
- Raising new ideas;
- Introducing new techniques;
- Giving ideas how to keep costs as low as possible;
- Developing education techniques and educational materials;
- Identifying relevant funding mechanisms;
- Hosting conferences and meetings;
- Establishing databases on e.g. projects, literature, institutions/people.

The conclusion from the questionnaires is that there are indeed a general European interest in the establishment of a European Centre for River Restoration.

### **Invitation to the constitutional meeting**

As a result of the many positive answers from the potential participants the founder institutes have decided to proceed on promoting the development of the Centre. An official constitutional meeting for the European Centre for River Restoration is thus planned to be held in Silkeborg, Denmark 25-26 March 1999. At this meeting the ECRR should be formally established, various ideas and informations should be discussed, and a working plan should be elaborated with a priority list of activities. Also, the management board should be appointed at the meeting.

Apart from accommodation and travel, participation in the meeting will be free of costs and open for all interested.

Accommodation arranged by the ECRR is expected to mount up to about 600 DKK per person per night (about 60 £). Cheaper accommodation might be arranged.

Should you or another person from your institution be interested in participating in the constituting meeting please fill out and return the slip attached to this newsletter. A detailed programme will be sent out to all interested in due time.

## **River Restoration 2000 - ECRR conference**

As part of the working plan for the establishment of the ECRR it is decided to organize a Conference on River Restoration. The 5-day conference will take place in Lelystad, the Netherlands, from 15-19 May 2000. Organisation of the conference will be in the hands of RIZA in cooperation with the Dutch National Network of ECRR Participants. Main goal of

this conference is to contribute to the development of a European network on River Restoration. Participants will come from institutions involved in ECRR but also from other relevant institutes and authorities in the field of management, research and education both from the governmental and non-governmental sector. This conference will offer participants a fine opportunity to share their ideas and experiences

on river restoration through presentations, workshops and informal meetings. A field trip to current restoration projects along Dutch rivers and streams will be part of the conference.

More detailed information about program and organisation of this conference will be available early spring 1999. For more information e-mail: [b.fokkens@riza.rws.minvenw.nl](mailto:b.fokkens@riza.rws.minvenw.nl)

# Viewpoint

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## **The Water Framework Directive and river restoration**

*Asger Meulengracht Olsen, European Union, DG-XI*

The proposed Water Framework Directive is intended to bring coherence to Community water policy. Building upon existing water legislation, in particular the Nitrates and the Urban Waste Water Treatment Directive, a focus on the ecological quality of waters is added in addition to the specific water quality requirements already laid down in existing legislation.

### **The objective**

The objective is to prevent further deterioration of ecological status and pollution of surface waters and restoring surface waters with the aim of achieving good surface water status through the establishing and implementation of River Basin Management Plans. Management plans must cover the entire River Basin District, including associated groundwaters, transitional water (estuaries, lagoons) and coastal waters. Co-ordination of existing water legislation and other relevant legislation must be ensured through co-ordinated programmes of measures throughout the whole river basin.

The Water Framework Directive realises that many water bodies are heavily modified (or artificial) and criteria to take this into account are included in the Directive. Thus, the Water Framework Directive is not as such an instrument for restoration of aquatic ecosystems but the objective of ensuring at least ecological good status of waters should promote restoration and improvement of aquatic ecosystems, including the restoration of rivers and lakes.

### **Important input**

Experience with river restoration may give an important input to the fundamental scientific machinery of the Directive, foremost in terms of experience with modelling and identifying physical and/or biological characteristics of crucial importance for restoring ecological balance in a particular type of ecosystems.

### **Hierarchy of ecological status**

The Directive establishes a hierarchy of ecological status, the most important being high, good and moderate. In order to take

into account climatic geological etc. differences across the Community the Directive restricts itself to defining ecological status in relative terms, so-called normative definitions. Three dimensions are considered: biology, hydro-morphology and chemistry. The philosophy is that hydro-morphology is taken as reflected in the biology rather than factored in as a parameter in its own right. The normative definitions of ecological status focus on four biological elements: phytoplankton, macrophytes and phytobenthos, benthic invertebrate fauna and fish given weight as appropriate in relation to rivers, lakes, transitional waters (estuaries, lagoons) and coastal areas.

### **Reference conditions**

Type specific reference conditions in terms of specific parameters and parametric values for each of these elements must be established for each water type, adding facts and figures to the normative definitions. This way type specific reference conditions are drawn

up based on the actual biological and physical state at a particular geographic location, thus taking into account specific ecological conditions and variation across the Community.

Reference conditions must be established from undisturbed aquatic ecosystems (high status). Ecological status below high will then be expressed as a function of distance to high status. By taking undisturbed ecosystems as the basis for reference conditions it is assumed that the biology will reflect the hydro-morphology. The biology in a high status aquatic ecosystem is taken as a reflection of physical and chemical, climatic etc. conditions in the high status ecosystem.

The type specific biological reference conditions may be either spatially based or based on modelling or may be derived using a combination of these. This is also central to work related to river restoration.

### **ECRR an important source of information**

Thus, the European Centre for River Restoration could become an important source of information in terms of theory as well as concrete experience with establishing proper reference conditions based on historical information and/or modelling. Moreover, the ECRR should be well placed to provide experience with the practical use of biological elements as indicators for ecological status. In this context experience with the use of tools for assessment of ecological status, inter alia in terms of biological indexes, may also be provided through the ECRR-activities.

The ECRR may also contribute to an understanding of the importance of hydro-morphological structures for ecological status. Of particular interest is the question of how hydro-morphology is reflected in the biology and the extent biology

can in practice be used as foreseen in the Water Framework Directive. The ECRR should be well placed to provide information, preferably tested in practice, inter alia on modelling and engineering hydro-morphology of water courses, e.g. as a few simple examples: stream-acceleration and meandering, elimination or reduction of barriers to migration etc.

The large geographical coverage beyond the European Union of the ECRR is also of great interest with European enlargement in mind.

Not forgetting, of course the most important part: the beauty of restored water courses out there as a result of the ECRR-activities!

(Readers are encouraged to express their viewpoints in this space. Viewpoints should be concisely written in English (max. 1 page).

## **Projects**

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### **Wetland restoration and the Danish Action Plan II on the Aquatic Environment**

*Torben Moth Iversen, National Environmental Research Institute, Denmark*

Excess nitrogen in Danish groundwater and surface waters has since the early 1980s reduced the quality of groundwater and further caused severe eutrophication in coastal and open marine waters. The Danish Parliament decided therefore in 1987 to reduce nitrogen inputs to the aquatic environment by 50% and phosphorus inputs by 80%. The Action Plan included measures in industry and households (waste water treatment), aquaculture and agriculture.

#### **Results of the Action Plan**

A monitoring programme has since then documented that the measures in industry, households and aquaculture have generally been implemented and the goals fulfilled. For agriculture the goal was to reduce nitrogen leaching from fields by 100,000 tonnes N (43%) mainly through improved agricultural practice and improved utilisation of manure. The monitoring programme has documented that the measures taken were insufficient to meet the objective, and that Denmark could not fulfil the EU Nitrates Directive.

#### **Action Plan II**

In early 1998 the Danish Parliament therefore decided on an Action Plan II on the Aquatic Environment focusing specifically on measures to reduce agricultural nitrogen losses to the aquatic environment.

The main components of Action Plan II were improved utilisation of nitrogen in animal manure and reduced nitrogen standards for crops (below economical optimum), but for the first time re-establishment of wetlands was introduced as a measure to reduce nitrogen inputs to the aquatic environment.

### **Denitrification in wetlands**

Danish wetlands have been significantly reduced through draining during the last century and more than 90% of all Danish rivers have been channelized. Denitrification is an important process in agricultural wetlands and research during the last 10-15 years has documented a sustainable capacity for nitrogen removal of natural and re-established wetlands of 200-500 kg N /ha/year. According to Action Plan II 16,000 hectare wetland will be re-established before year 2003 with a predicted nitrogen removal of about 5,600 tonnes N/year.

The main objective of wetland restoration is to re-establish the natural hydrology of the wetlands by increasing the groundwater level and the capacity for denitrification. Re-establishment of previously drained areas including meadows and lakes will be important, but also re-meandering of channelized rivers could be an efficient measure. The implementation of wetland restoration to reduce nitrogen inputs has just started and the overall impact on biodiversity and river quality has yet to be seen.

### **Re-establishing wetlands an efficient measure**

On an international scale re-establishing wetlands as a national measure to reduce nitrogen inputs to the aquatic environment is unique. We believe it will be an efficient measure, which at the same time will increase biodiversity without significant environmental risks. A monitoring programme will specifically be designed to document the effect of this measure not only on nitrogen removal, but also on biodiversity and other relevant issues. The main findings of this programme will be reported in this newsletter.

## **The WWF International Green Danube Programme**

*Philip Weller, WWF - Green Danube Programme*

Rising in the Black Forest of Germany and travelling 2,840 km to the Black Sea, the Danube River is a living ribbon between east and west Europe. Despite its ecological and cultural importance, the river has over the past two hundred years been badly degraded by human activities. Channelization, draining of wetlands, cutting of forests, building of dams and pollution have damaged the Danube ecosystem.

### **The initiative**

In recognition of the deteriorated ecological condition of the river, WWF launched the Green Danube initiative in 1992 to compliment the efforts of national governments and international funding institutions (EU, World Bank, UNDP etc.) which were targeted at water quality problems in the Danube and Black Sea. The Green Danube focuses its efforts on restoring damaged wetlands and protecting remaining natural areas.

According to Emil Dister, of the WWF Germany Floodplain Institute, an initiator of the

programme, 'WWF recognised that water quality could not be addressed without addressing land-use, and conservation and restoration of floodplains ecosystems in particular'. Wetlands act as kidneys of a river system - cleansing water and acting as a sediment trap. Good water quality requires healthy and properly functioning wetlands. Sadly the extent and area of wetlands and natural floodplain in the Danube has been dramatically reduced through drainage, dams and other landscape changes. In Bulgaria, for example, 90% of the former floodplain wetlands along the Danube have been lost.

### **The WWF Green Danube Programme**

Model projects in Germany, Austria, the Slovak and Czech Republics, Hungary, Bulgaria and in the Danube Delta (Ukraine and Romania) demonstrate floodplain forest management, ensure the survival of endangered and threatened species of animals and plants and most encouragingly demonstrate the

potential to restore drained and damaged wetland areas. 'But WWF cannot restore the Danube alone', says Philip Weller, the director of the programme, 'we can only be pioneers and develop models for showing that protection of the environment can have important economic and social benefits'. All the projects are carried out in co-operation with other non governmental organisations, governments, regional offices, and local partner organisations.

There are five major project areas:

#### *1. Mouth of the Isar*

The Isar is one of the Danube's largest tributaries. Unfortunately in the upper Danube and its tributaries one dam follows the other and nearly no space for free flow of water is left. The last remaining hotspot of biodiversity is formed by a periodically flooded floodplain forest lying between Regensburg and Passau, where the Isar enters the Danube. WWF purchased land to protect this natural forest and demonstrate model conservation management

practices that can restore and sustain this 'Area of National Importance'.

## *2. Central Danube Multilateral Park*

In this large and relatively natural area of floodplain forest and meadows along the rivers Danube, Morava and Dyje, WWF is promoting transfrontier conservation with non-governmental and governmental partner organisations in the Czech Republic, Slovakia and Austria. Based on this co-operation the European Union has recently supported a major meadow and forest restoration project. In addition, WWF and the Austrian Water Management Authorities have begun carrying out a restoration project to bring water back to the old sidearms of the newly created Danube National Park.

## *3. The Danube/Drava National Park*

This 50,000 ha area in southern Hungary is the location of a project involving restoration, rehabilitation and conservation for the largest remaining floodplain forest along the Danube. White-tailed Eagles, Black Storks and numerous fish that depend on this forest wetland for survival. Hope exists that the park will eventually form part of a cross border park with Kopacki Rit, Croatia, a large natural area along the Hungarian/Croatian border where effects of the recent war are still evident. The National Park should also open new possibilities for recreation and nature tourism.

In addition, the Danube/Drava National Park and Austrian Floodplains National Park have become sister parks and beavers from Austria were sent to Hungary to re-establish a local population.

## *4. Bulgarian Islands*

The Bulgarian reach of the Danube is occupied by 60 islands of varying size due to the changing water level and sediment transport of the river. These islands are home to a large number and diversity of water birds and are breeding area for numerous fish species.

Together with the Bulgarian Committee of Forests and local NGOs (Green Balkans), WWF is carrying out a floodplain forest restoration project for this diverse complex of islands.

In co-operation with the Bulgarian Ministry of Environment, the National Forest Board, local users and local nature protection organisations the WWF begun to develop an action plan and common goals. The first step of the project involves eliminating non-native mono-culture plantation trees and re-establishing natural forests, the second phase will more include the development of management plans.

## *5. Danube Delta*

The Danube Delta is the second largest wetland complex in Europe and a critical habitat and refuge for a number of rare and endangered plants and animals. Despite the significance of this unusual habitat, drainage and channelization have badly damaged this natural jewel. Together with the Biosphere Reserve Authority, the Danube Delta Institute (Romania), the Dunaiskie Plawni Authority (Ukraine) and local NGOs, WWF has initiated a high profile wetland restoration programme that has involved breaking dikes on two islands and re-establishing wetlands. The WWF Floodplain Institute (Auen Institute, Germany) has provided leadership to this effort which it is hoped will restore and protect the natural values of the Delta and provide sustainable economic opportunities for local peoples.

In summer 1998 WWF began an expansion of the Danube Delta activities in Ukraine which involve a major restoration activity coupled with support for economic activities (fishing, tourism etc.) which can benefit from wetland conservation and utilization. This Partners for Wetlands Project is part of a worldwide WWF effort to develop partnerships between various sectors of society to ensure wetland conservation, restoration and sustainable management.

## **Conclusions**

Wetlands are an essential part of a functioning river system. The model projects of the Green Danube Programme ensure that wetlands are protected and restored. The projects are important in and of themselves but also serve as a means for promoting an overall recognition of wetlands and floodplain habitat. Floodplains perform an essential role in water purification, reducing flooding hazards, and preserving dwindling biodiversity.

Encouragingly, the governments of the Danube formally recognised the important role of wetlands in the Danube Strategic Action Plan (SAP), endorsed in Bucharest on 6 December 1994 by the Environment Ministers and the EU Commissioner responsible for the Environment. The SAP states that: '-Conservation, restoration and management of riverine habitat and biodiversity is important for maintaining the natural capital of the basin (its biodiversity) and to establish its natural purification and assimilative capacity'.

The continued co-operation of international funding agencies, national governments, local forest and environmental managers and NGOs is a powerful alliance of interests that is making important progress in conservation and restoration of Danube wetlands.

## The use of the River Habitat Survey to identify sites for river rehabilitation

Jim Walker, Marc Naura and Mark Diamond, Environment Agency, N.W., UK

The River Habitat Survey (RHS) is a method for assessing the physical character and quality of river habitats. It is based on the collection of ecological, geomorphological, and land use information at a country-wide sample of survey sites. This data has been used to develop a national database of more than 5000 RHS sites which acts as an inventory of river information which can be summarised at a number of scales. As such, the database provides a unique method for the quantitative assessment of the conservation value of riverine environments.

### Need for a systematic technique

Site selection for river rehabilitation has generally been driven by the subjective judgement of catchment managers and environmental professionals. While such techniques have produced many sound projects, the scope and scale of river rehabilitation works is now rapidly expanding within the UK and elsewhere in Europe. Therefore, there is a need for a systematic technique of catchment assessment and site selection for river rehabilitation.

RHS provides such a tool. It has been successfully applied to habitat evaluation at a range of scales, from an individual site to the national context. It is particularly well suited to evaluation at the catchment scale.

### The Sankey Now Project

An example of such a use of RHS data is the 'Sankey Now Project'. This venture is a collaboration between local people, the Environment Agency, local government bodies and regional charitable bodies, focusing on the River Sankey and its tributaries

(approx. 200 km of watercourse) which form a sub-catchment of the River Mersey in North West England.

A comparison of RHS data for the Sankey with the national database identified that the catchment was severely degraded with extensive habitat modification and low habitat quality and was a priority catchment for rehabilitation. RHS data was then used to target such works effectively, producing a suite of possible rehabilitation sites, (see figure 1). This acted to support the decisions of catchment managers on focusing rehabilitation in two ways; firstly, in identifying sites where enhancement was most needed, and secondly, in selecting sites where works would create optimum habitat benefits.

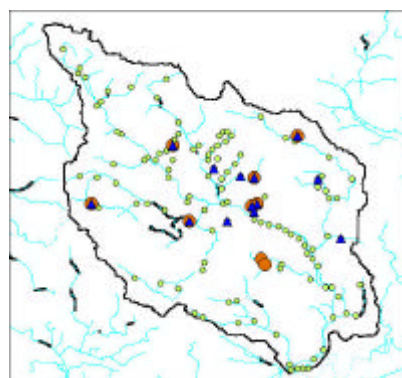


Figure 1: Sites identified as having rehabilitation potential within the Sankey catchment. (Circles = rehabilitation potential, Triangles = fisheries rehabilitation potential)

### The assessment

The targeting process comprised a catchment-wide assessment of existing geomorphological diversity, stream power and habitat modification based on RHS data. The criteria for site selection was high modification, low geomorphological diversity (and therefore low habitat

diversity), and moderate stream power (and thus adequate energy for natural development to occur after rehabilitation works had initiated change).

In this case the identification process was adapted slightly to concentrate on the needs of fisheries rehabilitation by focusing on in-stream features and by using water quality as an additional criteria. This application comprised relatively low cost rehabilitation works to give substrate, bedform and channel-margin habitat improvements, (see figure 2). The wider aspects of multi-functional integrated management in the Sankey catchment, and the role of geographical information systems, are now being developed in a further Environment Agency (North West Region) initiative.



Figure 2: Riffle developed at an identified site as part of rehabilitation works.

For further information please contact:

**Marc Naura** for general enquires regarding RHS at [marc.naura@environment-agency.gov.uk](mailto:marc.naura@environment-agency.gov.uk) or **Jim Walker** for specific enquiries regarding river rehabilitation or integrated river basin management at [jim.walker@environment-agency.gov.uk](mailto:jim.walker@environment-agency.gov.uk).

(Everybody has the opportunity to have restoration projects presented in this space. The presentation should be concisely (max. 1 page) written in English.)

# Conferences

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The Centre has received information about the following international conferences with relevance for river restoration. Further information can be obtained through the Centre or through the e-mail addresses mentioned.

## **The challenge of rehabilitating Australia's streams**

- Adelaide, South Australia 8-11 February, 1999

*The conference will provide a forum in which managers, researchers, and the community, from across Australia, can meet, share their experiences, present their work and forge a new path for stream rehabilitation.*

e-mail: jburston@denr.sa.gov.au  
or: fceaton@ozemail.com.au

## **Stream corridors: Adaptive management and design**

Niagara Falls, Ontario, Canada 1-5 March, 1999

*Second international Conference on natural channel systems arranged by Credit Valley Conservation*

*More information from the WEB-site:*

*<http://www.mississauga.com/conservation.html>*

e-mail: cvc@mississauga.net

## **Official constitutional meeting for the European Centre for River Restoration**

- Silkeborg, Denmark 25-26 March, 1999.

*Official constitutional meeting for the European Centre for River Restoration at which the ECRR should be formally established, various ideas and informations should be discussed, and a working plan should be elaborated with a priority list of activities. Also, the management board should be appointed at the meeting. For further information please see the section 'European Centre for River Restoration' in this newsletter.*

e-mail: ECRR@dmu.dk

## **Biological problems in large rivers**

University of Cologne - Cologne, Germany 4-8 April 2000

*The main topics of the conference will be: Dynamic changes in the benthic fauna; Ecology of the river fishes.*

Further informations: Dr. Armin Kureck or Prof. Hartmut Arndt  
e-mail: akureck@biolan.uni-koeln.de  
or: harndt@biolan.uni-koeln.de

## **River Restoration 2000**

- RIZA - Lelystad, The Netherlands 15-19 May 2000

*The conference is the second conference on river restoration arranged by the ECRR. For further information please see the section 'European Centre for River Restoration' in this newsletter.*

e-mail:  
B.fokkens@riza.rws.minvenw.nl



# Publications and videos

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## Publications

The Centre has received information about the following publications with relevance for river restoration.

*Bailey, R.G., José, P.V. & Sherwood, B.R. (Eds.) (1998): United Kingdom Floodplains. - Westbury Academic & scientific Publishing, UK.*

*Hansen, H.O. & Madsen, B.L. (Eds.) (1997): River Restoration '96 - Plenary lectures. International Conference arranged by the European Centre for River Restoration. - National Environmental Research Institute, Denmark. 151 pp.*

*Hansen, H.O. & Madsen, B.L. (Eds.) (1998): River Restoration '96 - Session lectures proceedings. International*

*Conference arranged by the European Centre for River Restoration. - National Environmental Research Institute, Denmark. 294 pp.*

*Hansen, H.O., Boon, P.J., Madsen, B.L. & Iversen, T.M. (Eds.) (1998): River Restoration, The Physical Dimension. - Aquatic Conservation, Special issue, Vol. 8(1). 264 pp. This special issue of Aquatic Conservation includes a series of papers presented at the International Conference 'River Restoration '96', organized by the European Centre for River Restoration, Silkeborg, Denmark.*

*Jungwirth, M., Schmutz, S. & Weiss, S. (1998): Fish migration and fish bypasses. - Papers from the conference 'Fish Migration & Fish Bypass-Channels' held in*

*September 1996. - University of Agricultural Sciences, Vienna, Austria.*

*Petts, G. & Calow, P. (Eds.) (1996): River restoration: Selected extracts from the Rivers handbook. - Blackwell Sciences Ltd. 231 pp.*

*Rosgen, D. (1996): Applied River Morphology. - Wildland Hydrology Books, Colorado, USA. 390 pp. A guide for the conservation, assessment and monitoring of rivers and the applications for water resource management. Distribution in Europe: Environmental River Engineering Books; P.O.Box 31 12 45; D-76142 Karlsruhe, Germany. Price: 174 DEM.*

## Videos

**La rinascita del fiume - Un film sul ripristino fluviale in Danimarca. - Madsen, B.L. (1997)**

Free copies can be obtained from ECRR as long as they are in stock.

e-mail: HOH@dmu.dk

*Italian version of the awarded ECRR-video 'Freedom Regained - A film on stream restoration in Denmark' from 1996 (also obtainable from ECRR).*

**Rivers of the future. - River Restoration Centre (1998).**

Available from RRC;

e-mail: RRC@cranfield.ac.uk

*This film records how natural features were re-introduced to two canalised UK rivers to demonstrate the techniques and benefits of lowland river restoration.*

**Wetland World. - van der Noordt, I. & van Eerden, M. (1998).**

Available from RIZA, The Netherlands;

e-mail:

m.roukema@riza.rws.minvenw.nl

*The film shows the subtle liaison which exists between wetlands by the use that migratory birds make of them. By comparing the deltas of Niger, Volga, Danube, Pechora and Rhine from a bird's eye perspective, a plea is made to restore natural processes in the western world.*

# European Centre for River Restoration

## Participation in the constituting meeting of the ECRR Silkeborg, Denmark 25-26 March 1999

Should you or another person from your institution be interested in participating in the constituting meeting of the European Centre for River Restoration please fill out and return this slip before 15<sup>th</sup> January 1999 to:

European Centre for River Restoration  
National Environmental Research Institute  
P.O.Box 314  
Vejlsøvej 25  
DK - 8600 Silkeborg  
Denmark  
Fax: +45 89 20 14 14      E-mail: ECRR@dmu.dk

Apart from accommodation, food and travel, participation in the meeting will be free of cost and open for all interested.

<b>Name:</b> _____	<b>Date:</b> _____
<b>Organisation:</b> _____	
<b>Address:</b> _____ _____	
<b>Country:</b> _____	
<b>Telephone:</b> _____	<b>Fax:</b> _____
<b>E-mail:</b> _____	

**I would like to book a room/bed from:**

<b>Arrival date:</b> _____	<b>Departure date:</b> _____
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- Single room (DKK 600 / night)**
  - Double room (DKK 600 / person / night)**  
sharing with \_\_\_\_\_
  - Youth hostel (2 beds in each room) (DKK 175 / person / night)**  
sharing with \_\_\_\_\_
  - Youth hostel (4 beds in each room) (DKK 125 / person / night)**  
sharing with \_\_\_\_\_
- 
- I will arrange my own accommodation.**