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Editorial ECRR Newsletter



Dear readers,

It is our pleasure to present this 'special' newsletter, the first in 2017, to you. It is a special newsletter because it pays directly with at least five articles attention to seminars, symposia or conferences that were held in 2016 or will be held in 2017. And by another two articles about river restoration activities centrally organized in Romania and Norway, this dissemination mean play also an important role in spreading the river restoration practices and knowledge. River restoration National Centres and ECRR Board members are often involved in the organization of these events and delegates of the past six ECRR International River Restoration conferences are often (keynote) speakers and presenters, altogether forming the wider ECRR Network.

The ECRR Board is nowadays implementing the ECRR Association in such a way that it should highly support the further development of this 'ECRR Network for best practices of river restoration in Greater Europe'. ECRR's strategy still being: dissemination of ecological river restoration information, with establishing river restoration National Centres / Networks and supporting

the development of good / best practices strategies of river restoration. The reports of all the events prove the present and future needs for this.

Then we will ask your attention for a special article on the long term monitoring of fish responses to river restoration in Germany, proving the positive effects river restoration can have. Together with the call for abstracts for the symposium: Adaptation of Inland Fisheries and Aqua Culture to Climate Change, they give the right attention with respect to river restoration to fishes.

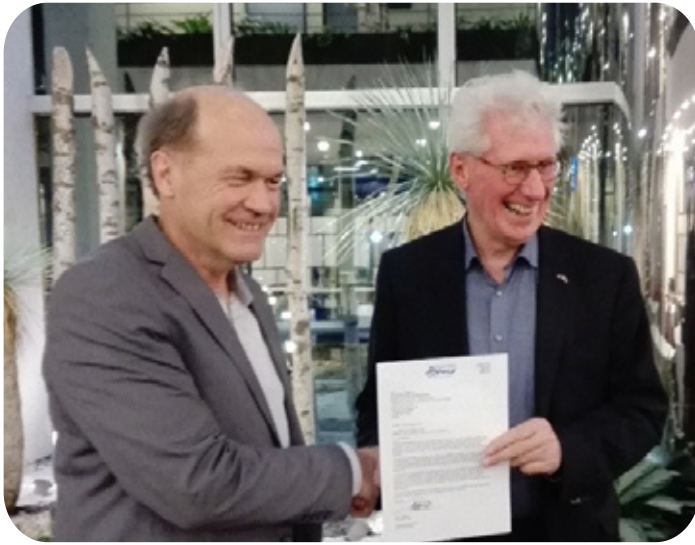
Finally the Events calendar 2017 shows the continued effort to develop knowledge and practices in the various fields connected to river restoration and to disseminate this as widely as possible. The ECRR, Association and Network, will continue to support this and asks you to do the same.

Thank you for reading this newsletter and we are looking forward for your contributions.

Francisco Martinez Capel, CIREF
Timur Pavlyuk, RosNIIVH
Bart Fokkens, ECRR and Wetlands International



ECRR Board Meeting and French National River Restoration Centre Kick-off on 15/16 December 2016 in Paris, France



Mr Philip Dupont (French Agency for Biodiversity) left, congratulated by Bart Fokkens (ECRR) right.
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Following discussions and through the cooperation in the last five years with ONEMA and ONEMA's activities in the field of enhancing river restoration in France, specifically the dissemination of river restoration amongst the French water management organizations, the ECRR Board is convinced that the position and role of National Centre can be fully implemented in the coming years, coordinated by the recently formed French Agency for Biodiversity.

Moreover the ECRR is in transformation to become a formal association to be able to stabilize the coordination and professionalize the implementation of the network activities. We expect that with the accession of the French National Centre for River Restoration to our network, ECRR's capabilities to develop in this way are enhanced.

The ECRR Board wishes the French National Centre for River Restoration every success!



ECRR Board and French National Centre Representatives in Paris.
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It is with pleasure that we may inform you that the Preliminary Conference Programme of the 10th International SedNet Conference "Sediments on the move" is now available from <http://sednet.org/wp-content/uploads/2017/03/Preliminary-programme-v.-27-March.pdf>.

Please go to <http://sednet.org/events/sednet-conference-2017/> for further (practical) information about the event, and if you wish to attend you can scroll to the end of the webpage, and complete/submit the online registration form.



14th «EUROPE-INBO 2016» International Conference on the WATER FRAMEWORK DIRECTIVE Implementation

Introduction

The 14th conference of the «EUROPE-INBO» group, which took place in Lourdes, France, from 19 to 22 October 2016, at the invitation of the French Water Agencies, the City of Lourdes and with ONEMA's support, gathered 199 participants, representatives of national administrations and basin organizations, elected official, as well as of NGOs, companies, international and regional organizations and academic institutions, coming from 44 countries.

The work of the international conference in Lourdes was organized around four roundtables dedicated to current events in the practical implementation of the WFD and other European water-related directives.



ECRR Chairman Bart Fokkens reporter of the round table 4 – Adaptation on climate change.
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Roundtable 1: WFD: towards the 2019 review

In a broad sense, the European Water Policy is mainly based on a set of three directives: the Water Framework Directive (WFD), the Flood Directive (FD) and the Marine Strategy Framework Directive (MSFD). In addition to these tools, the European Commission has drafted a strategic communication document, the «Blueprint», adopted in 2012, which gives guidelines for water policy on resource conservation taking climate change into account.

The WFD, enacted in 2000, plans for having its «review» made in 2019 at the latest. In Amsterdam in June 2016, on the occasion of their half-yearly meeting, the European Water Directors submitted to the Commission a paper entitled «thoughtstarter», which identifies the stakes of this review. The first of them is the future of the WFD beyond 2027, when it is clear that the objective of “good status” of water bodies will not be achieved in all the basins by that date, contrary to the requirements of the Directive. An extraordinary meeting of the European Water Directors was convened by the European Commission on past 6 October to share the work paths to explore. This issue is also reflected in the conclusions of



Opening of the 14th conference of the EUROPE-INBO Group, 19–22 October 2016, Lourdes France.
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the Council of Environment Ministers of 17 October, 2016. The European institutions and Member States have started thinking about the future of the water policy.

The WFD has advanced by establishing the principle of integrated water resources management in basins, by widely introducing the stakeholders' participation for a shared vision and by relying on cost recovery to fund the water policy.

Today, the second management cycle is ongoing throughout the European Union and it is already time to prepare the third cycle that will cover the period from 2022 to 2027.

Failure to achieve «good status of water bodies» in 2027 at the latest, despite the efforts made to reduce the pressures of human activities on water resources, and the threat of European litigation are fears shared across Europe, leading to questions about the operational implementation of the Directive in the years to come.

How to consider its continuation, how to revitalize WFD implementation and restore credibility to achieve the WFD objectives? The Directive review is an opportunity to provide answers to these questions.

Roundtable 2: Water Governance in Transboundary Basins

Water governance in transboundary basins should be improved, especially for good water management in the international districts established in compliance with the WFD. In addition to the WFD, this more efficient governance should ensure a coordinated implementation of the Flood Directive and the Marine Strategy Framework Directive in transboundary basins and marine areas, including those shared with the riparian non-EU or EEA countries. This implies the signing of cooperation agreements between riparian Countries or relying on Commissions already established to enable conditions for appropriate governance, based on mutual trust, a shared understanding of the basin problems supported by precise, accessible and shared data and analyses and stakeholders' involvement.





Field excursion in the Valleys of the Gaves.

Roundtable 3: Adaptation to Climate Change: Resources Management, Scarcity and Drought

As underlined during the COP 21 held in Paris in 2015, we must increase our efforts for properly assessing the effects of climate change on water resources, and appropriate measures must be decided and quickly implemented in national and transboundary basins, in particular.

In the European Union, the River Basin Management Plans and future Programmes of Measures (3rd cycle) must integrate adaptation measures. To avoid duplication or inconsistency, these adaptation measures must be part of the River Basin Management Plans as required by the WFD. These adaptation measures must be taken with a multi-sectoral approach to all economic sectors that impact the areas concerned. The sectoral policies (energy, agriculture, urban planning) and the adaptation measures that concern them should also be integrated into and made coherent with the adaptation component of the plan.

Considering the risk of increased scarcity and drought due to climate change, it should be reminded that water security in the basins is a major issue for quality of life, human security, economic development and conservation of the natural heritage.

The established systems must include structural and non-structural measures. Structural measures include actions that allow, for example, water saving, reuse of treated wastewater, increased storage capacity in a multifunctional approach. Natural Water Retention Measures (NWRM) and green infrastructure are preferred to improve the sustainable availability of resources and their status, combining at once the hydrological aspects of low-water and flood management with the hydro-geological, hydro-morphological and water

quality aspects. Such an approach leads to better resilience of the environments and greater flexibility of any existing infrastructure and thus addresses the need for «no regrets» imposed by the uncertainty linked to climate change.

Alongside the structural measures, non-structural ones have to be taken to incite users to reduce their consumption, regulate withdrawals, establish a drought crisis management framework and facilitate the society's responsiveness to an extreme water scarcity event.

In this regard, the participants stressed the importance of effective management and monitoring of water withdrawals, including the search for optimal use of water resources, to make water withdrawals compatible with the keeping of a minimum water flow to preserve aquatic environments. They reminded their wish for greater work at the European level for the determination of environmental flows.

Roundtable 4: Adaptation to Climate Change: Knowledge of Flood Risks, Management of Aquatic Environments and Preventive Measures in the Basins

Generally, it is advisable to seek better integration between the WFD, the Flood Risk Management Directive and the Marine Strategy Framework Directive, especially when defining measures for adaptation to climate change to be integrated into the River Basin Management Plan and Programme of Measures.

This is particularly the case for the implementation of the Flood Risk Management Plan (FRMP) in areas identified as being subject to potentially significant flood risk. These FRMPs were adopted at the end of 2015 and their implementation is carried out from 2016 to 2021 before a first evaluation planned in 2021. The local strategies for flood risk management must be approved by the end of 2016.





The Pyrenees causing torrents and floods in Lourdes in 2013.
© ECRR Bart Fokkens

Synchronization with the River Basin Management Plan during its development was effective in principle. Coordination should continue during the whole implementation in the basin, especially in the most difficult cases of transboundary basins where a coordination and cooperation effort should be made by the Member States or even with the EU neighboring countries.

On this topic, the participants recalled that flood prevention can be achieved by relying on the natural functions of rivers and wetlands, which can lead to arrangements that enable the use of wetlands and natural areas fit for flood mitigation or the dynamic slowing of floods (green infrastructure). More specifically, public policies, that may affect watercourses or that aim at their preservation or restoration, shall recommend actions for the preservation or restoration of the riparian areas of these rivers with buffer strips, mobility zones, flood retention areas...

Closing

The «EUROPE-INBO 2016» conference is a new step for the WFD implementation in the 2nd cycle of River Basin Management Plans (2016-2021), but also for formulating proposals on the future of this Directive, based on field practices of the EUROPE-INBO members as well as on taking climate change into account in the future.

While welcoming the progress made in WFD implementation, the EUROPE-INBO Members consider that the efforts made in the implementation of measures should be increased so that all water bodies achieve «good status» within a reasonable time.

For future progress, they emphasized the great need for better coordination between the European water policy and other EU economic and sectoral policies, such as the CAP, the policy on transnational transport or on renewable energy.

The Final Declaration, all papers and photographs of the conference are available on the website: www.inbo-news.org



Dissemination of information and networking during the field excursion of the EURO-INBO2016.
©ECRR Bart Fokkens



Poland International River Restoration Conference 2016

Towards the Best Practice of River Restoration and Maintenance

Martin Janes, the River Restoration Centre, United Kingdom

The first of its kind in Poland

The overall goal of this first Poland River Restoration Conference was to bring together river scientists, engineers and practitioners to share and discuss recent scientific research on river functioning, river status evaluation and various aspects of river restoration. And to facilitate exchange of experiences on environment-friendly river restoration and maintenance, especially with regard to flood risk management and nature protection. Moreover the event aimed for the following:

1. The (international) transfer of science based knowledge on river restoration
2. Asking attention for and imaging of the problems of river restoration practitioners
3. An increased uptake of river restoration in Poland

The ultimate goal of increased uptake of river restoration and the understanding of, and willingness to work with, the natural physical processes of rivers, is progressing in Poland, but slowly. Whilst the science is pushing forward alongside other countries, and has over a decade of results and evidence, the practice of management is still far behind. All of the presenters from Poland recognised the difficulties of gaining momentum, avoiding being branded 'eco-warriors' and turning around generally accepted practices of gravel extraction for local needs, so endemic that it causes major problems.

River restoration and maintenance in Poland

The Polish people's perception of rivers is still one of nature to be tamed, as well as a free and everlasting resource. Management is often in response to a flood or a perceived problem. Joanna Zawiejska (Pedagogical University of Cracow, Poland), painted a clear vision of the early formative years in a river manager/engineer's early life through her research of the images of rivers in secondary level geography textbooks.



Only three photos showed mobile river sediments, many were used to depict danger and risk, or were not representative of Polish river types, with some being heavily modified. Of the more natural river images most were used instead to highlight the other landscape features (such as vegetation or forests) rather than mentioning the river. The question was posed "do we need to better 'market' rivers?", starting with more up to date and representative images of the role they have in the natural environment. Mateusz Grygoruk (University of Life Sciences Warsaw, Poland) showed how changing legislation at a national level takes significant time to filter down to daily working practices, with examples from Poland's lowland agricultural rivers. Detrimental works are carried out under the historic procedures of flood damage repair. The same concerns were voiced in other sessions and in questions over the two days.

Some possible options were introduced by speakers, less targeted as river restoration but more a small change in how maintenance of rivers is achieved: Tomasz Okruszko (University of Life Sciences Warsaw, Poland) - changing/reducing mowing on floodplains (for better roughness and so flood risk reduction); Angela Gurnell (School of Geography Queen Mary University London, United Kingdom) a different approach to managing the vegetation in rivers to help them 'self-restore'; and many presentations dealing with the topic of wood and its critical beneficial role, especially in mobile upland rivers.

Of course, the other obvious contribution to better uptake of river restoration in Poland was the combined impact of the non-Polish presenters. Each in turn added their thoughts, examples lessons and findings to add to the considerable weight of international evidence for the science, policy and practice of more naturally functioning river systems, where management and maintenance work with natural processes. The speakers were all very open about what works and what does not, aiming to advance the approaches in Poland by offering a hand at the big steps up to the next level of understanding. The concept of nature based solutions, combines this well.



Scientific understanding

The key messages from the international transfer of science based knowledge on river restoration were that transfer of science between countries and between scientists is often far simpler than the transfer of science through knowledge and understanding to practitioners, managers and politicians, nationally and internationally. The scientific community was well represented and often in agreement with the underlying principles and the direction that the science is taking. There was also a lesser but still positive practitioner attendance, from overseas. The noticeable absence was the significant contribution of Polish managers and engineers. Those in attendance were exceptionally passionate, but few in number, and actively seeking a way forward to more their country in the same direction as other leading countries in a better way of managing their rivers.

The river science research teams at Krakow and Warsaw stand in high regard within the academic community and its literature, but when advising practical decisions affecting communities, economic issues and ongoing historic practices, their scientific evidence often goes unheard, or is not heeded due to (local) political direction.

The overall messages from the international conference speakers was to inspire and impart how best to make advances in Poland, either through similar examples and approaches – Martin Janes, cultivating UK community involvement in all levels of restoration and management; and Katharina Edmaier (Federal Office for the Environment, Switzerland- how to begin country/regional scale management planning over decades, the Swiss experience.



How does this conference influence practice?

The key messages for addressing the problems of river restoration practitioners are broadly summarised as:
A need for clear management guidance for planning and delivery of river work, regionally and locally,
How to change the mind-set of engineers in Poland who are used to a different view of river management?

Given the key messages of 'wood being good' especially for the upland rivers in Poland, how can this message be successfully integrated in to policy, practice and local community understanding, when wood in rivers is seen as a problem, a nuisance and a firewood opportunity?

In part, a step forward was suggested by Josée Peress (French Agency for Biodiversity, France)– the new French national river restoration centre and its need for knowledge sharing with other ECRR member organisation across Europe.



What else needs to be doing?

Gaps in knowledge are often many and varied at such well attended events with a range of experts from across wider ranging countries and experiences. In particular, catchment appreciation for planning the science and management of rivers, for WFD and to achieve multiple benefits from these resources was raised a number of times, still not being addressed well in some countries.

Being specific about what managers need to know and understand, and what the local communities and managers should be told are the benefits of a 'new' approach – they may not have the same vision.

Monitoring the impacts of management and restoration is critical, and no country does this well. Planning, funding and implementation to learn and apply elsewhere is assumed but not well practiced – this was evident from the workshops led by the Swiss group from EAWAG and their Monitoring workshop sessions.

Thoughts and views

During the conference a number of issues were raised by audience: Tom Buise (Deltares, Netherlands), in his role as lead of the REFORM project, asked for continued effort for more and better case studies from each country, to help spread learning and confidence. And suggested the next step was better decision support for managers.

From Italy came the question of whether WFD metrics are good enough to be able to successfully evaluate the changes after restoration?

A number of questions in monitoring led to a proposal for adaptive and flexible monitoring to recognise new developments, not to tie down a set of rules to early on.

Summary

The conference was well attended and supported, had delegates from more than 20 countries with good support from within Poland to make it significant.

There was a common understanding that the science was shared and developed during the two days, but also, and more importantly, it was put in context of getting it in place in management practice. The latter was recognised as at early stages (or sometimes not even begun) but with key individuals in attendance what wanted this and were promoting and leading this slow change. They in particular were vocal and questioning, adding a good 'home' crowd grounding and practical reality to prevent too much 'academic theorising'.

In the end the conference addressed points one and two of the aims of the event well and in a good degree of detail. Three, the increased uptake of river restoration in Poland, will need to develop over the coming years and cannot be delivered by a 2-day event, but the international support and encouragement received will make this path a shared one, with a list of good contacts when further advice is needed.

And lastly, a tip for conference organisers everywhere – the most successful way to achieve a good participation in the closing session is the provision of Polish beer in the break and the ability to take it with you back to your seats to 'toast' a successful event. Cheers!



Aspects of Romanian National Centre for River Restoration activities

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Romanian National Institute of Hydrology and Water Management

Short history

The Romanian Centre for River Restoration (RCRR) was established on 01.09.2001, by Order of the Minister of Waters and Environmental Protection as a technical and consulting body for the Ministry, in view of joining the efforts of Romanian experts towards river restoration.

Romania, through the National Administration "Romanian Waters"/"Apele Romane" is a founding member of the European Centre for River Restoration (ECRR), which was established in Silkeborg, Denmark in 1999.

The main goal of the Centre is, according to the genuine Ministerial Order *"to assure the conceptual approach of specialists from different activity fields, most of all biologists – ecologists versus civil engineers, water management engineers, hydropower and hydro technical engineers"*.

Since December 2013, the National Institute of Hydrology and Water Management, which is a sub-unit of the National Administration "Romanian Waters"/"Apele Romane" ensures the Secretariat of the Romanian Centre for River Restoration.

EU context. Romanian research and activities

Within Europe, the hydromorphological alterations are considered one of the most important pressures on river ecosystems and represent a major threat to water quality. According to article 4 of WFD all Member States are bound to implement *«measures to prevent deterioration of the status of all bodies of surface water»*. Therefore, the river restoration gained a new approach in order to achieve the environmental objectives for all river water bodies as Water Framework Directive requires. In this regard, the chapter «Program of Measures» of the River Basin Management Plans became an important tool for the implementation of Article 4 of the WFD.

In this international context, in the last decades RCRR developed diverse activities as: organization of seminars, meetings with specialists working in different fields (water resources management, environment protection,

hydrology, hydrotechnical works, land reclamation), trainings, participation to international seminars and conferences in the river restoration field, and through the experts members of RCRR has constant concerns to develop projects and guidelines on ecological restoration of aquatic ecosystems.

In this context, the experts of the National Institute of Hydrology and Water Management (NIHWM) are doing research in the river restoration field which it is important part of the water resources management system. The research studies developed during 2003-2016 aims to ensuring river continuity (lateral connectivity and longitudinal continuity). The results of these studies have been represented by specific solutions to facilitate the migration of fish fauna upstream reservoirs and to restore/or create wetland/floodplain ecosystems in order to improve river water quality. Also, the NIHWM experts developed the *Guide for ecological restoration of hydro-morphological modified rivers* which became a guideline for research studies that followed after 2011.

The annual scientific conference of NIHWM offers an opportunity for the practitioners, decision makers and stakeholders to share their expertise and experience in water management including river restoration. In the same time, the NIHWM experts are involved in many scientific events and projects.



During 2011-2013 the National Institute of Hydrology and Water Management gained experience in river restoration field as subcontractor of DLG – Government Service for Land and Water Management (The Netherlands), in the framework of the RESTORE Project (Rivers: Engaging, Supporting and Transferring knowledge for Restoration in Europe) application no. LIFE09 INF/UK/000032 (<http://www.restoreirivers.eu/>).



The RESTORE project was an opportunity: (i) to disseminate the best practices in River Restoration field in the European countries; (ii) to share knowledge and promote best practices through the RESTORE website and River Restoration Wiki Database (more than 1000 river restoration case studies all over Europe); <http://riverwiki.restorerivers.eu>; (iii) to find partners to develop future projects.

The NIHWM organized with the support of National Agency for Water and Aquatic Environments of France (ONEMA), European Center of River Restoration (ECRR) and International Office of Water-Paris, the technical workshop on River Restoration and Natural Water Retention Measures organized within 12th EUROPE-INBO International Conference, Bucharest 2014, which brought together field stakeholders, decision-makers, experts and specialists from Europe, group and representatives of NGOs interested in the river restoration.

Perspectives

In the course of 2017, Romanian Center of River Restoration with the support of NIHWM, will organize a national workshop, with the theme of river restoration, open both to specialists in water resources management, researchers, stakeholders, as to NGOs. It will focus on conflicts that arise in river restoration projects.

Also, in the near future, NIHWM will develop a website dedicated to the Romanian Center for River Restoration and their activities.

*Ecological restoration of Danube Delta – Carasuhat Pilot Area
(implemented project) the first Romanian wetland restored
by local communities*



THIES INTERNATIONAL RIVERPRIZE and REGIONAL RIVERPRIZES 2017

Call for applications for the Thies International Riverprize is closed!

The winner will be announced at the Riverprize Gala Dinner In Brisbane on 19 September 2017, receiving AUS\$ 200,000 in prize money from the Bert & Vera Thiess Foundation. You could be among the guests of honor at the **20th International River Symposium** in Brisbane, Australia, in September 2017 when our next winner will be announced. This celebrative International Riversymposium and Environmental Flows Conference is an opportunity for those involved in all aspects of sustainable river basin management and want to enjoy Australia's stunning river city. Learn more: www.riversymposium.com

Regional Riverprizes, like the European Riverprize will not be awarded in 2017 so you need to wait a year.

Learn more: www.riverfoundation.au.org



Norway: River and Wetland Restoration receives increased attention

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Norwegian Environment Agency.

River and wetland restoration is receiving increased attention in Norway. In 2015 the Government decided to formalize a National Project Group on restoration, organized under the National Committee of Agencies for implementation of the Water Framework Directive. Participants in the group include four national Agencies, as well as selected representatives from local Municipalities, and regional Authorities. The tasks of the project group are:

- Promote increased restoration activity in Norway.
- Secure sufficient coordination (planning, financing and execution) of restoration activities across agencies.
- Facilitate exchange of knowledge, experiences and good examples on restoration, when possible in synergy with European research activities and networks on restoration like the ECRR.

During 2016 the National Project Group has established closer relations with ongoing restoration research at the Norwegian Institute for Water Research (NIVA) and the Norwegian Institute for Nature Research (NINA), and initiated the development of a work plan and annual plan for the Project Group itself.

National seminars and conferences in 2016

The National Project Group has assumed the responsibility for organizing the annual Norwegian National Seminars on River and Wetland Restoration. The annual seminars had been a voluntary initiative since 2010. This year, the seminar was held in the city of Trondheim on August 30th and 31st, and gathered more than 90 participants with a special interest in restoration, including water managers at all levels, agencies, municipalities, researchers and consultants. The first day included international keynote speakers from Örebro municipality in Sweden and the UK Environment Agency. Several Norwegian experiences on restoration were presented, including urban and natural rivers as well as wetlands. The Norwegian Institute for Nature Research (NINA) presented their work on collection of experiences to improve ecological restoration in Norway. The second day of the seminar



was devoted to three field visits: a restored urban creek, a restored riparian shoreline, and finally a natural river that had been relocated as part of work to stabilize a valley to avoid landslides during flooding. All presentations are available at the following link: <http://vannforeningen.no/foredrag/2016-30-31-8-restaurering-av-vassdrag-og-vatmarker/>

The other significant event was the National Water Environment Conference in November, a wider conference with 300 participants, covering all aspects of water management. During this conference, a half day parallel session on restoration of rivers and wetlands was arranged, aiming at reaching and inspiring a wider audience than the august seminar. The session included short presentations from Norway and Sweden on restoration of habitats for different species of river mussels, restoration of wetlands to improve habitat for birds, removal of fish migration barriers, and restoration of riparian vegetation. All presentations are available at the follow link (scroll to parallel session D): <http://www.vannportalen.no/kalender/gjennomforte-moter/nasjonale-vannkonferanser/nasjonal-vannmiljokonferanse-2016/parallell-sesjoner/>

The work ahead

The Norwegian Government has approved a national Action Plan for Biodiversity, including adoption of the Aichi target of restoring 15 % of degraded nature. A national initiative for restoration of wetlands has been established. The aim is threefold: to reduce CO2 emissions and store carbon, improve natural water retention, and to restore the ecological status. The national budget for this was about 1,5 million EURO in 2016, and is expected to increase to approximately 3,0 million EURO in 2017. Around 30 pilot projects are under way, with more than half of them already in the execution phase and the rest undergoing planning, and an action plan for 2017-2019 is being developed.

The implementation of the Water Framework Directive has been a driver for river restoration in Norway. River Basin Management Plans and Programmes of Measures for all of Norway's 11 River Basin Districts were completed by the end of 2015, and approved by the Government by summer 2016.



The present implementation phase includes a scheme where municipalities and other stakeholders can submit applications for government co-funding of measures, including restoration. The national budget for this was about 1,0 million EURO in 2016, and is expected to increase to approximately 4,0 million EURO in 2017.

There is an increasing understanding of the win-win potential of ecological restoration combined with climate adaptation through natural water retention measures to reduce flood and storm water risks, and also the possibilities of carbon storage in wetlands. In urban river restoration, the importance of blue-green areas for quality of life in the cities is also being increasingly valued.



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- Anders Iversen (anders.iversen@miljodir.no) International restoration contact.

All pictures Norwegian River Restoration Seminar 2016.
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SYMPOSIUM: ADAPTATION OF INLAND FISHERIES AND AQUA CULTURE TO CLIMATE CHANGE

Call for abstracts!

European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC) invites you to a symposium Adaptation of Inland Fisheries and Aquaculture to Climate change that will take place 3-6 September in Stare Jabłonki, Poland's beautiful lake area. The symposium organizer is S. Sakowicz Inland Fisheries Institute in Poland.

You can find more detailed information about the conference on the website: www.eifaac2017.pl.

Please prepare your abstract according to the posted template and submit it by email to eifaac2017@infish.com.pl before **April 14, 2017**. Selected papers will be published in a special issues of Fisheries Management and Ecology.

The organizers prepared an interesting scientific and visiting program and are looking forward into welcoming you there.



Vistula river Poland © Katarzyna Suska



Fishermen in the Danube Delta © Bart Fokkens



The Niagara River awarded with the Thiess International RiverPrize 2016



The Niagara River in New York State, USA has won the coveted Thiess International Riverprize 2016, the world's premier award for river restoration and river management. Buffalo Niagara Riverkeeper accepted the award at the International on behalf of the river and the greater Buffalo community, during a special gala event held in New Delhi in conjunction with the International River symposium in September 2016.

The Thiess International Riverprize is awarded annually by the International River Foundation to recognise game-changing initiatives for sustainable rivers worldwide. Applicants include corporates, government agencies, not-for-profit organizations and community groups. Buffalo Niagara Riverkeeper has leveraged hundreds of millions of dollars in cross-sector partnerships to place freshwater systems at the heart of the community, which now values and maintains the integrity of these systems. Years of hard work has seen the transformation of the Niagara River from a historical rust belt region to a newly restored ecosystem for the Great Lakes.

Finalists included the Elwha River in Washington, for the largest dam removal in history implemented by the US Department of the Interior and the Lower Elwha Klallam Tribe, and the Segura River, Murcia Province in Spain for restoration efforts directed by the Segura River Basin Authority to relieve the river of decades of pollution from industry.

Bill Dennison, Chair of the International Riverprize Judging Panel, congratulated Buffalo Niagara Riverkeeper and

recognised the efforts of all finalists to pioneer effective ways to restore and protect the world's waterways. 'Partnerships are crucial to the success of any restoration initiative,' Mr Dennison said. 'The dynamics of cross-sector engagement to restore the Niagara River have been a major factor in the Niagara's transformation. The judging panel was impressed by the exceptional change not just in the physical landscape, but also in attitudes to the river and the region.'

Jill Jedlicka, Executive Director of Buffalo Niagara Riverkeeper, accepted the award and was thrilled for her team to have been recognised for decades of work leading to the transformation of the Niagara River and surrounding regions. 'This award is a tremendous honor for the Niagara River and for our organization,' Ms Jedlicka said. 'We share this recognition with our many partners and the entire Western New York community. Together, we are working toward regional waterfront revitalisation. It's not just an environmentalist issue – it's connecting clean water to a healthy Great Lakes economy.'

Last year, Buffalo Niagara Riverkeeper received the North American Riverprize, awarded for the first time at the annual River Rally in Mobile, Alabama. Regional prize winners automatically progress to the second stage of the International Riverprize. Applications for the 2017 International Riverprize open later in the year, for more information www.riverfoundation.org.au and www.riversymposium.com



Characterizing fish responses to a river restoration over 21 years based on species traits

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Abstract

Understanding restoration effectiveness is often impaired by a lack of quality, long-term monitoring data and, to date,

few studies have used species trait information to gain insight into the processes that drive the reaction of fish communities to restoration. We examined fish community responses using a highly resolved dataset with 21 consecutive years of data (4 years pre- and 17 years post restoration) at multiple restored and unrestored sampling reaches from a river restoration project at the Lippe River, Germany. This restoration led to a doubling of both species richness and abundance. Abundance exhibited an overshooting response immediately following restoration and both richness and abundance stabilized approximately seven years after the restoration. However, inter-annual variability remained high, illustrating the challenge to reliably assess restoration outcomes based on data from individual samplings, especially in the first years following restoration. We found that life history and reproduction-related traits were the most important traits in explaining the differences in species' responses to this restoration. Opportunistic short-lived species with early female maturity and multiple spawning runs per year exhibited the strongest increase in abundance, reflecting their ability to rapidly colonize new habitats. These often small-bodied and fusiform fishes typically live in dynamic and ephemeral instream and floodplain habitats that river habitat restorations often aim at, indicating successful restoration in this case. This study suggests that a stronger consideration of species traits may enhance the causal

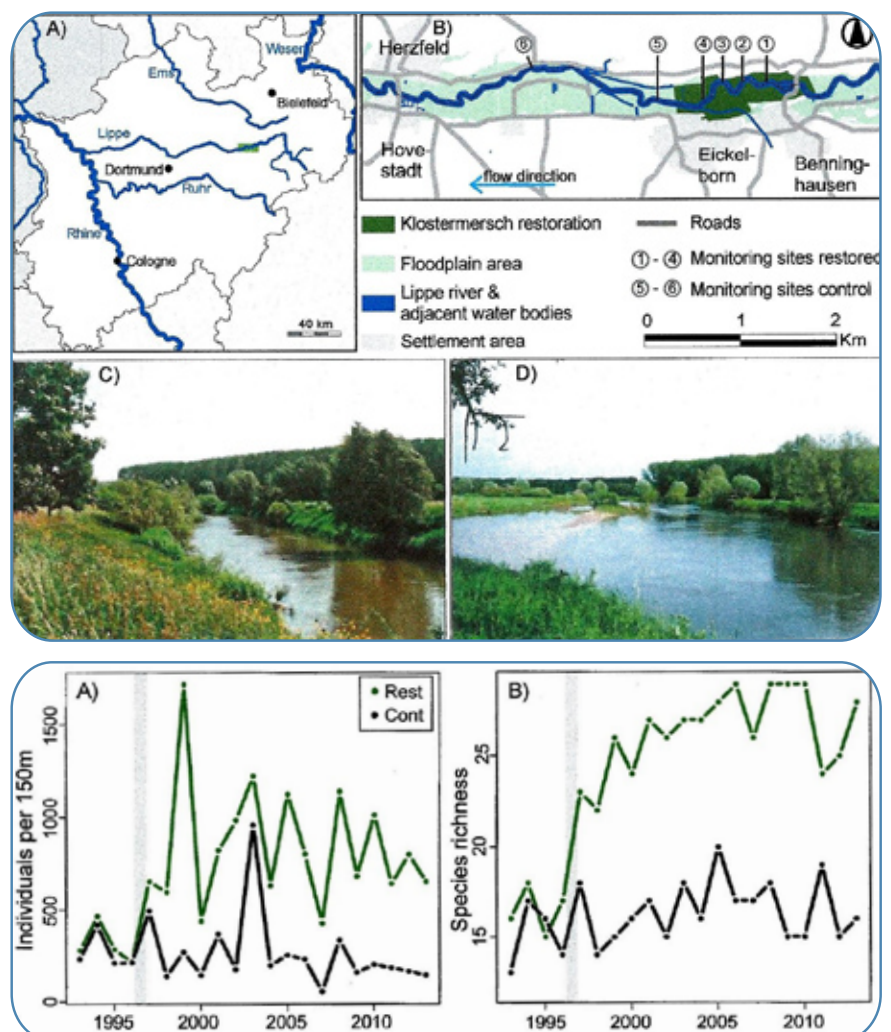
understanding of community processes and the coupling of restoration to functional ecology. It would furthermore allow for easier transfer of knowledge to other biogeographic areas than studies on the basis of species taxonomy.

Figure 1

Overview of the restoration project. (A) Location of the Lippe River and the restoration project area (green rectangle) within the German State of North Rhine-Westphalia. (B) Detailed map of the Klostermersch (KM) restoration reach and the six sampling sites. (C) Photo of the KM area before restoration with a relatively straight river that is carved deeply in bed and has no contact to the riparian meadows, and (D) KM after restoration, where the river is in contact with meadows due to a bottom-lift of the river bed, and the habitat spectrum is widened, such as by creation of sand banks and still water areas. Photo's by courtesy of J. Drüke.

Figure 2

(A) Total fish abundance and (B) species richness in the Lippe River between 1993 and 2013 at the restored (Rest, green) and unrestored control reaches (Cont, black). The execution of the restoration project is marked by the gray vertical bar.



ECRR Events calendar 2017

Date / period	Title / issue	Location	Links
4-5 April, 2017	RRC 18 th Annual Conference	Brighton, UK	www.therrc.co.uk
18-20 April, 2017	Clean Water of Russia	Ekaterinburg, Russian Federation	www.ecrr.org
31 May–2 June, 2017	Ecological Continuity; International LIFE Symposium	Beaune, Burgundy, France	www.life-continuity-ecologique.eu
13–15 June, 2017	International Eel Science Symposium	London, UK	www.sustainableeelgroup.org
14–17 June, 2017	10 th International SedNet Conference “Sediments on the move”	Genoa, Italy	www.sednet.nl
19-21 July, 2017	River Basin Management	Prague, Czech Republic	www.wessex.ac.uk/conferences/2017/river-basin-management-2017
3-6 September, 2017	Symposium Adaptation of inland Fisheries and Aqua Culture to Climate Change	Stare Jablonki, Poland	www.eifaac2017
18-20 September, 2017	20th International River Symposium	Brisbane, Australia	www.riversymposium.com
27 August – 1 September	World Water Week	Stockholm, Sweden	www.worldwaterweek.org
30 Oct-3 November	Amsterdam International Water Week	Amsterdam, Netherlands	www.internationalwaterweek.com

Call for articles

The newsletter of the ECRR should also be a way to share with one another what interesting work is being done, information about seminars or literature. One way of doing this is by writing an article of any project, event or literature you may be acquainted with. Send this article (**maximum of 500 words**) to the secretariat of the ECRR at info@ecrr.org

We will take a close look to the content and if it is coherent with the philosophy of ECRR (ecological river restoration and sharing knowledge) your article will be published with pleasure in the next edition (s) of the ECRR Newsletter.

The secretariat of the ECRR hopes to receive any article on ecological river restoration from any of its members

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