# **ECRR**NEWS - 1/2019

JULY

The network for best practices of

# river restoration in Greater Euro ECRR European Centre for River Restoration

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Storforson rapids, Sweden © Bart Fokkens

## Editorial

Since April this year the ECRR issues the monthly eNews with regular updates about actual news and events. This means that the original **ECRR** Newsletter is transferred into a technical newsletter, being issued twice a year. In this ECRR Technical Newsletter more attention will be paid to the technical aspects of river restoration principles, policies and practices. A consequence of this is that the articles may sometimes be somewhat longer than in the former ECRR NEWS. Moreover, the number of issues is set at two per annum, instead of three. But it could also mean that we issue a third, thematic, ECRR Technical Newsletter in a year. By this way we are able to explain, not only what ECRR does, but also why and how we do it. Describing our 'why' clarifies the reason for the existence of ECRR as an association, with its members mainly being national river restoration centers.

ECRR's viewpoint is that the conservation and restoration of rivers, and their related riparian zones, wetland and floodplain ecosystems and the services they provide, is essential to mankind's health, wellbeing and prosperity. River restoration is increasingly used in resolving river management challenges in many parts of Europe. It is a broad ecological approach and often covers other evolving EU policies and strategies such as Natural Water Retention Measures and Nature-Based Solutions.

This approach and viewpoint are very well reflected in the articles of this Technical Newsletter. An article about the development of the Russian River Restoration Centre underlines that river restoration is a universal concept that can be brought into practice under various geographical and governmental circumstances. Then an article on the riparian vegetation zones, explains how crucial the knowledge on these and the exchange of it is for the management and the ecological and hydromorphological restoration of rivers. On



Vesijärvi lake Lahti, Finland. © Bart Fokkens

the other hand, the article on the label for "Wild Rivers Site" shows the importance of conserving or even restoring free flowing living rivers and the continued labeling of river sites meeting the set of requirements for such a label. In another article, the described Danube WildIslands makes visible the importance of river islands in biodiversity conservation and the dynamics of river morphological processes, like the re-allocation of sediment.

This all makes very clear why the European Water Framework Directive and related water directives are so important for maintaining or achieving the Good Ecological Status or Good Ecological Potential in European waters. The article on ECRR's WFD Review Submission and the EUROPE-INBO 2019 Conference are indispensable activities to support this. But also indispensable for this are the public celebrative activities of the World Fish Migration Day and the World Rivers Day for a broader audience. And those who want to learn more, could register for the amazing conference on the free flowing Sélune, with a couple of dam removals at the same time. In addition, it will be worth to participate in the Clean Water of Russia 2019 Conference for a better understanding of the developments of the Russian river restoration approaches and activities. Finally, for a wider audience the event calendar offers other knowledge dissemination and networking opportunities.

#### Best wishes,

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

# **Russian River Restoration Centre: History and Activities!**

#### Introduction

River restoration in Russia in general has been promoted by state organizations. Russian Research Institute for Integrated Water Management and Protection (RosNIIVH) is one of the key organizations involved into the process over the whole territory of the country through the network of its own affiliations and environment dealing organizations. RosNIIVH serves as the Russian River Restoration Center since 1998. RosNIIVH develops theoretical basis and produces technical guidelines concerning all aspects of the inland waters restoration. The Institute organizes thematic seminars and conferences, keeps up the information system of hard water problems and their solutions, works out pilot research projects and investigates internal and abroad restoration cases.

The reason why the core of river restoration was attained to the state organization was the permanent functioning independently on the budget situation, which may be too variable in case of NGO structures. The river restoration is focused on some main objectives: chemical pollution sources elimination, enhancement of recreational territories, fish protection, flood protection and banks armoring and revitalization of some stretches of rivers to gain more good habitats. Actual interest to waters restoration is growing year by year in Russia.

#### The institute RosNIIVH

This year, RosNIIVH is celebrating its 50th anniversary. Currently, the structure of the institute unites the head Institute in Ekaterinburg and four branches - in Vladivostok, Chita, Perm and Ufa. There are 190 specialists working in the departments of the Institute and its branches, including 10 Doctors and 30 Candidates of science (PhD).



"All-season" activities. Institute researchers in summer 2017 in the Tura River and in winter 2017 in the Irtyash Lake.

Sampling macroinvertebrates in lakes and rivers.



# XV International Scientific/practical Symposium/exhibition "Clean Water of Russia – 2019"

September 23-27, 2019, Ekaterinburg, Russia.

₩

Supported by the Federal Agency of Water Resources and the Government of the Sverdlovsk Oblast <a href="http://wrm.ru/index.php?id=263">http://wrm.ru/index.php?id=263</a>

Researchers of leading scientific institutions of Russia and neighboring countries, water experts and officials from executive governmental bodies of the Russian Federation constitution members, water users, ecological NGO's, as well as ecological supervision agencies are invited and welcomed to participate. Water safety as a factor of sustainable development will be the main topic of the symposium. Working languages are Russian and English at sections with foreign participants.

The symposium programme includes several plenary meetings including an ecological restoration session, a conference of the Network of Water Organisations of Eastern Europe, Caucasus and Central Asia, Meetings including a special

one on the Comprehensive Plan for ecological rehabilitation of the Chernoistchinsk and Verkne - Viya reservoirs as a source of drinking water for Nizhni Tagil, Round

Tables, Open Lecture for students, contests, exhibition presentations and a technical excursion. For more information,

mailto: rosniivh@rambler.ru





Analytical laboratory activities

The scientific and technical investigations of the Institute are aimed at solving the tasks defined in the Water Strategy of the Russian Federation, covering a wide range of issues of strategic and operational management, water management planning, designing structures and technologies, modelling and forecasting the status of water bodies. The studies of the institute are aimed at the stable provision of territories with water resources, the preservation and restoration of water bodies, the scientific support for the protection of socio-economic facilities and properties from the negative impact of water.

The Institute is a member of the European Water Association (EWA) and the European Centre for River Restoration (ECRR). The result of the cooperation is, in particular, the promotion of knowledge in the field of restoration of water bodies. Since 2011, the Institute has been working in the Network of Water Organizations of Eastern Europe, the Caucasus and Central Asia (NWO EECCA). The mailing list reaches 500 members, consisting of professionals and specialized organizations.

#### Mirror of trends in the water sector development: The annual International Symposium and Exhibition "Clean Water of Russia".

For the first time the Exhibition and Conference "Clean water of the Urals" was organized in November 1994 in Ekaterinburg. It was the first regional Conference and Exhibition in Russia devoted to water issues. The main issue of the event was the draft of the Water Code of the Russian Federation, which was reasonably recognized as one of the largest acts of the environmental and natural resource legislation of that time. In the course of the events following the first forum, the formation and development of the substantive and practical parts of the biannual Conference took place. Since 1998, thanks to the support of the Ministry of Water Resources of Russia and the participation of specialists from foreign countries, the event acquired International status and was renamed to the Symposium "Clean Water of Russia".



Demonstration of the Interactive World Water Resources Map at a Clean Water of Russia Conference

# **Emphasizing the Riparian Vegetation – Cost Action "CONVERGES"**

Riparian vegetation, as part of riparian zone, plays a crucial role in key processes connected to fluvial ecosystems functions and services, such as contributing to river shape, protecting against erosion, regulating river temperature regime, improving water quality, enhancing biodiversity, mitigating floods and droughts, etc. In recent decades, this has been a subject of large number of specialized investigations or activities. However, in most cases such investigations are isolated or not widely widespread into integrated management practices and legislative norms.

To meet the above challenges, as a part of the EC funding organization for research and innovation networks COST, Action "CONVERGES" (CA 16208) **"Knowledge Conversion for Enhancing Management of European Riparian Ecosystems and Services"** was launched in 2017. It gathers on a voluntary principle about 150 researchers, river managers, environmental consultants from 35 countries, within the idea to meet, collect, exchange and share their multidiscipline and regional experiences on the topic.

Main tasks of CONVERGES are:

- Synthesis of current knowledge to characterize the status

of riparian vegetation, their main stressors and management responses across Europe;

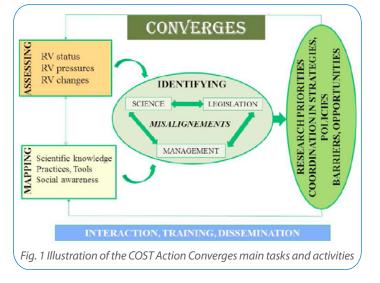
- Convey and share riparian knowledge among scientists, policy makers and stakeholders from different scientific disciplines, geographical regions and management contexts to understand how riparian vegetation is framed by different communities and thereby facilitate knowledge conversion;

- Identify misalignments among actors in how to understand and conceptualize riparian vegetation in order to prioritize areas for knowledge conversion efforts as well as research gaps and policy/strategy improvements;

- Determine evidence-based best practices in riparian management and develop effective tools and indicators to assess ecological status using riparian vegetation, thus tools and indicators crafted drawing from different disciplines and con-

veyed to practitioners in order to fulfill relevant policy targets. With this regard, several horizontal activities are intended such as capacity building, creation of a critical mass of experts. Early Career Investigators training and dissemination of activities to wide range academics, managers and policy makers through wide geographical areas.





The structure of CONVERGES is illustrated on Figure 1.

To reach the presented goals four working groups are operated:

- WG1: Characterizing degradation of riparian vegetation across the EU: status and pressures:
- WG2: Visualization of European responses to riparian vegetation degradation;
- WG3: Establishing misalignments in riparian knowledge and priorities for knowledge conversion for enhanced management;
- WG4: Dissemination and outreach of results and outcomes.

All COST Action CONVERGES work and cooperation is provided through different communication channels and personal contacts. During the Action several events were already organized: First action management committee meeting (2017), COST Action CONVERGES - Kick-off meeting (Feb. 2018), Core-group meeting, Lisbon (April, 2018), Workshop "Unification of National Riparian Database", WG1 meeting (May 2018), Monitoring and assessment of riparian vegetation in European countries - WG1 Workshop (July 2018), Visualization of European responses to riparian vegetation degradation – WG2 Workshop (Sep. 2018), Annual meeting (April 2019)."As a result of these meetings are analyzed:

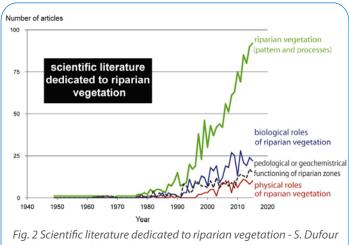
- Phytosociological approach of riparian communities
- Riparian vegetation definition/delineation issues
- European riparian vegetation status assessment
- Relationships between pressures and status
- Riparian vegetation ecosystem services review

- Identification of the responses to riparian vegetation degradation

- Review of riparian vegetation restoration measures
- Genetic conservation of riparian vegetation

Focusing on the broader European regional diversity, connected to the extensive physico-geographical, climatic and hydromorphological conditions, the work of the CONVERGES network started with

review and examination of existing riparian ecosystems and vegetation knowledge and practices. From this study it can be concluded that there are many investigations connected to individual scientific cases (Figure 2) developed in various biological, ecological, hydrological, geomorphological, topographic, fluvial systems, etc. contexts. Thus, wide range of definitions, legislative formulations and practices were detected, developed mainly in individual manner.



et al. / Science of the Total Environment 653 (2019) 1168-1185

Connected outputs are: Riparian zone / Riparian vegetation definition: principles and recommendations. Tracing the scientific trajectory of riparian vegetation studies and COST members scientific works, etc. All provided works are presented and developed to close the connection within the practitioners, stakeholders, decision makers and policy makers. For the purpose additionally are considered the existing science/ management relationships and legislative measures in term to analyze the existing tools, models, practices and gaps.

For dissemination purposes all COST Action "CONVERGES" information is presented on the web: https://converges.eu/. There are presented also external materials that can be in help. Connected Newsletters are published since December 2018. All activities are disseminated also via social media channels of the action: Facebook: https://www.facebook.com/ converges16208cost/, Twitter: https://twitter.com/ca16208, ResearchGate: https://www.researchgate.net/project/COST-Action-CA16208-for-enhancing-management-of-Europeanriparian-ecosystems-and-services.



Figure 3. The CONVERGES participants.

Chair: Simon Dufour (France) Contacts: for dissemination Mila Chilikova-Lubomirova (WG4 leader; milasemail@yahoo.com). To join the action - Simon Dufour (Chair): simon.dufour@univ-rennes2.fr



# Construction of the European "Wild Rivers site" label continues

#### Editorial: François LETOURMY Proofreading: Denis CAUDRON & Lucie GALLAND

Presented in our August 2017 newsletter, the "Wild Rivers Site" label is a non-regulatory tool managed by a NGO and a fund, whose main objective is simple: going far beyond the "Very Good Ecological State" of the Water Framework Directive for our last free-flowing pristine rivers. Since its creation in 2014 in France, the certified sites network has gathered no less than 23 watercourses from all over the country. From the Leguer River in the Breton bocage, to the Alpine Cians River or the Grande Leyre River in the Landes forest, these are watersheds whose differences allow rich exchanges between their managers.



The Wild Rivers Site network in 2016, at the French Ministry of the Environment, Paris

As mentioned in our last article, this program recognised as being of general interest by the French institutions is now progressively expending to Europe. Indeed, since 2016 it has received financial support from the French Agency for Biodiversity to proceed to the European translation of the Label. River managers have been contacted across a dozen of exceptional catchments, spread over a total of 8 countries. As the action opportunities are very different from one territory to another, the interest in the tool has been confirmed. For example, the upper Noguera Pallaresa, a Catalan river of the Ebro River Basin, is currently threatened by a mining concession project that could start in a couple of years. This jewel is, however, classified by multiple regulatory areas (Natura 2000, Nature Reserve, fish genetic reserve etc.). In order to offer it an international recognition and therefore a better protection, the Alt Pirineu Natural Park and its partners (municipalities and fishing federations) are strongly interested in the label.



François Letourmy, Wild River programe collaborator with Marc Garriga Lujan, Director of the Alt Pirineu Natural Park, and Marc Vande Vliet, professional fishing guide, near the Noquera Pallaresa River

The Irish Owenduff River is subject to different interests. For this exclusive and highly regulated fishing site which mainly flows across private lands, the "Wild Rivers Site" label is mainly seen as a potential consultation tool to link the Ballycroy National Park, which borders the river, to the private landowners. Locally, the label also represents an additional valorisation tool to develop a qualitative eco-tourism. Furthermore, the meetings held around this river basin have also created a link with the ambitious Irish "Blue Dot Program", whose purpose is as well to protect and restore high ecological status in a network of river and lake catchment. Exchanges will soon be held between the coordinators of the two programs.



Map of the certified and pilot sites



Guy Goeffroy, owner of the Rockhouse fishing estate with Denis Caudron, the Wild Rivers program Coordinator, on the Owenduff Rivers banks



Another example of the interest of the label for a better cooperation in a watershed: that of the Houille River. Indeed, the tool could make it possible to accentuate exchanges between French and Belgian institutions on this 25 km long cross-border river. Currently, an evaluation of its wild potential is launched to test its eligibility to the label.

Since 2017, European Rivers Network NGO also works with the Alpine Arc WWFs to identify the wild rivers of this territory. This work allowed the recognition of four rivers: the upper Soča in Slovenia, the upper Lech in Austria, the upper Ammer in Germany and the Ova Chamuera in Switzerland. These are all watercourses with exceptional preservation states: for instance, the Ova Chamuera River obtains a score of 97.5 / 100 according to the Wild Rivers evaluation grid developed by the network's Scientific Council! Diagnosis work and implementation of specific action programs continues today on this basin as well as two others, the Veyron River and the Beverin River, with the participation of WWF Switzerland with a certification goal by 2019-2020.

To achieve it, the project is now faces several issues: How to create a label that would allow to strengthen the protection of our rivers at European level, while maintaining flexibility that

made it successful? What certification process should be put in place to maintain reliable audits? What is the most appropriate economic model? If many solutions exist, it's the exchanges with the territories that will define the best one. That's why the "Wild Rivers" team remains open to any exchange with interested structures, NGOs, National Rivers Restoration Centres, public institutions and private actors to reinforce this work in 2019. It's the involvement of the greatest number that will determine the success of such a project.



For more information, please contact Denis CAUDRON, project coordinator at +33 6 85 31 40 05 or by email: <u>contact@rivieres-</u> <u>sauvages.fr</u>; Alpine Arc: Lucie GALLAND at <u>lucie.galland@lilo.org</u>; other territories: François LETOURMY at <u>francois.letourmy@gmail.</u> <u>com</u>. Website available on <u>www.rivieres-sauvages.fr</u>

# WILDisland – The Danube Wild Island Habitat Corridor

# The Danube – a transnational ecological corridor of European importance

The Danube is a hub of biodiversity and an essential lifeline for Europe. The large number of Natura 2000 sites (over 100 on the Danube main stream and 230 sites along its course) impressively shows Europe's commitment to preserve this natural heritage. Over 2,000 plant and 5,000 animal species live in or by the Danube's waters. There are around 2,000 vascular plant, 40 mammalian, and 100 fish species in addition to vital bird sanctuaries for species of European interest (ICPDR 2009).

Rivers, their riparian zones and riverine habitats form ecological networks and often build the backbone for bio-corridors. This pertains to the Danube in particular, due to its outstanding role as a link between more bio-regions than any other corridor in Europe. Facing e.g. an increasing future impact of climate change, intact corridors for migration and dispersal of species between the Black Sea Region, the Steppic Region, the Pannonian Region, the Continental and, finally, the Alpine Region, will gain increasing relevance, as such a corridor function could be ensured by a vital Danube River ecosystem.

# DANUBEparksCONNECTED – strengthening the Danube Habitat Corridor

In 2017, DANUBEPARKS, the Danube River Network of Protected Areas launched the initiative for the conservation and further development of the Danube Habitat Corridor. With funds of the Interreg Danube Transnational Programme, this project intends to raise awareness for the Danube River as bio-corridor. It aims to promote a better conservation of less-fragmented areas, and implements pilot actions to restore aquatic (WILDisland) and terrestrial (riparian forest, dry habitats) stepping stones within this eco-corridor, as well as the Danube as bird flyway.



network of protected areas

#### The Danube Wild Islands

Human intervention has resulted in the loss of around 90% of Europe's riparian zones in the past century. River engineering has had one of the most negative effects on nature (as reported in Habitats Directive, Article 17). This fact points to the enormous importance of a Danube ecological corridor, with islands as core components of vital river ecosystems.

Danube Islands make visible the dynamics of river morphological processes, like the re-allocation of sediment. They are often the only remaining sanctuaries for characteristic habitats and species of dynamic floodplains due to their near-natural state and good ecological status.

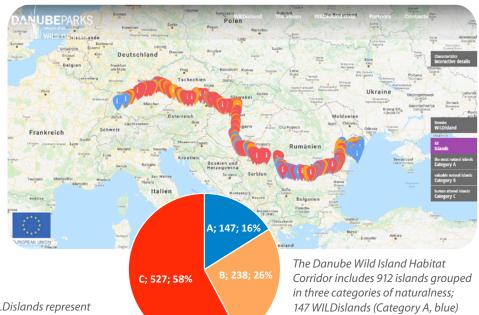
While the conservation status and the conservation trend of alluvial soft-wood forests with Alnus glutinosa and Fraxinus excelsior, priority habitat type at the EU level, are generally bad across all biogeographic regions, 40% of softwood forests



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on Danube Islands display a near-natural state (Categories A and B; see below); there are even primeval stands on WILDislands (www.wildisland.tripstore.eu/#home), representing last remaining wilderness in Central and South East Europe. This is a unique natural asset of European importance.





WILDislands represent sanctuaries for nearly pristine nature along the Danube River (photo: DANUBEPARKS/ Persina Nature Park, Ivanov)

In addition, for the Danube fauna, DANUBEPARKS monitoring programmes and the ICPDR Joint Danube Survey have stressed the indispensable role of islands: over 80% of indicator bird species for river morphology like the Little Ringed Plover (Charadrius dubius) breed on islands.



Danube Islands host core populations of characteristic riverine fauna and flora (see clutch of Little Ringed Plower in the front) (photo: DANUBEPARKS/Donau-Auen National Park, Kern)

#### **The WILDisland Online Tool**

Developed within the framework of the Interreg DAN-UBEparksCONNECTED project, the Danube Wild Island online tool produced the first inventory of the Danube islands <u>http://wildisland.danubeparks.org</u>

The Danube Wild Island Habitat Corridor contains 912 islands covering a surface area of over 138,000 ha; 385 islands can be characterized as being in a near-natural state. Of these, 147 islands (14,000 ha) can be described as pristine and characteristic of river wilderness. These form the core of the WILDIsland initiative.

#### Pilot actions for restoring dynamic island habitats

The Danube Wild Island Habitat Corridor forms a semi-aquatic eco-corridor along the whole course of the Danube River. The WILDisland initiative is aiming to implement conservation and restoration measures for Danube islands as flagship sites for river dynamics and morphology to counteract further degradation and isolation of dynamic alluvial habitats and their characteristic species. First pilot island restoration projects took place within the DANUBEparksCONNECTED. Additionally, concepts were elaborated to be realized in follow-up projects.

represent river wilderness

(wildisland.danubeparks.org)







Pilot actions to restore Danube WILDislands, implemented jointly by waterway and conservation sector (Wolfsthal, cross-border section between Austria and Slovakia) (photos: DANUBEPARKS/Donau-Auen National Park, Frank)

For selected WILDislands, this concept promotes non-intervention management - a key to ensure natural processes in the future and characteristic habitat structures on a long term. First commitments and letters of intent for non-intervention management have been signed at a political level.

The fruitful dialogue with the Danube waterway administrations, one of the key stakeholders when it comes to the conservation of WILDIsland, resulted in a Memorandum of Cooperation among the Interreg DanubeSTREAM Board of Directors and



the DANUBEPARKS Association 02-11-2018. With both sectors, waterway and forestry, the commitments on non-intervention management could be reached for the first WILDIslands.

This process will see its continuation in the form of a followup LIFE project (submitted in 2019), to implement and to strengthen the Danube Wild Island Habitat Corridor.

A main focus of this LIFE-proposal is on island restoration by transforming inland waterway infrastructure into Green Infrastructure (e.g. adaptation of groynes, removal of embankments). The coherence of the Danube Wild Island Habitat Corridor is to be increased also in the Upper Danube by involving partners from the hydropower sector for the restoration of islands in the Danube section which have been significantly altered by damming.

Considering the high natural value of WILDislands, this initiative aims to anchoring wilderness in riverine Natura 2000 through the preservation of pristine islands and primeval stands, and promoting non-intervention management.

Facing human pressures like recreation as a major threat for dynamic riverine habitats (see FFH Article 17 report), the WILDisland initiative also intends to stimulating awareness and appreciation among both the local and general public for river dynamics and wilderness.



#### WILDisland – good practice for EU-level Green Infrastructure

The EU Nature and Biodiversity Directors have remarked the WILDisland initiative "serves as a good example for the establishment of EU level Green Infrastructure projects" and contribute "for further developing and strengthening the coherence of the Natura 2000 network".

A Danube-wide commitment signed by all Danube Protected Areas Administrations, at the Directors' level, anchors the WILDisland initiative in their day-to-day management. Considering Danube Islands as key habitats for riverbed morphology and hydro-dynamic structures, this commitment is aiming to establish and to strengthen step-by-step the Danube Wild Island Habitat Corridor. To ensure a better conservation of the Danube WILDislands on a long-term, this commitment invites all land owners and land users, all relevant stakeholders and representatives from the policy level to support this initiative.

Finally, the European Secretariat of the Ramsar Convention supports the Danube WILDisland initiative as good example for a possible transboundary Ramsar site along a major river, as best practice for other large rivers in Europe.

#### Georg Frank

DANUBEPARKS Secretary GeneralNationalpark Donau-Auen, Schloss Orth, 2304 Orth an der Donau <u>www.danubeparks.org</u> <u>g.frank@danubeparks.org</u>

First commitments for non-intervention management on WILDislands have been signed at the political level (for Bavaria by Roland Weigert, District Administrator, Bernhard Gmeling, Mayor of Neuburg, and Marcel Huber, Bavarian Minister, from left to right) (photos: Landratsamt Neuburg Schrobenhausen, Geissler)

# ECRR's Submission on the Water Framework Directive Review to the European Commission

ECRR represents organisations<sup>1</sup> and initiatives directly related with river restoration, and therefore concerned about the European Water Policy and related practice to improve the ecological status of the rivers. The ECRR is an independent Association, free to voice opinions, irrespective of the interests of partners and supporters. As much of the REFIT questionnaire focused on national situations, it was not best suited to our response on the overarching European views and messages of ECRR's members.

<sup>1</sup> Finnish Environment Institute, French Agency for Biodiversity, Global Water Partnership Central and East European Countries, Iberian River Restoration Centre, International Network of Basin Organisations, Italian River Restoration Centre, Netherlands Foundation for Applied Water Research STOWA, Norwegian Environment Agency, Russian Institute of Integrated Water Management and Protection, Swedish Agency for Marine and Waters Management, The UK River Restoration Centre, Ukrainian Institute of Water Problems and Land Reclamation, Warsaw University of Life Sciences, Wetlands International European Association.



ECRR Members and registered partner



#### The ECRR defines river restoration as:

"Restoring towards the natural state and functioning of the river and the riverine environment, by assisting the recovery of river ecosystems that have been degraded, damaged or destroyed. River restoration promotes the sustainable multifunctional use of rivers to benefit society."

Planning and implementation of river restoration at the national strategic and local delivery scales is varied across Europe, in its robustness, use of evidence and availability of experienced practitioners. There is a pressing need to build capacity (nationally) and knowledge exchange (internationally) to meet the need of legislative requirements through accepted, and by developing, best practice. The purpose of the Association is: to encourage and support ecological river restoration throughout greater Europe.

For the ECRR the EU Fitness Check of the WFD and related Directives is an important opportunity to highlight the areas of success, but also some areas of concern of the directives planning and implementation activities and work, specifically in relation to river restoration planning and implementation. River restoration refers to a large variety of ecological, physical, spatial and management measures and practices that aim to restore the natural state and functioning of river systems. Restoring rivers reconnects ecosystems and the services they provide, including: water quality, biodiversity and habitats, flood safety and green infrastructure. By restoring natural conditions, river restoration promotes healthier, more resilient ecosystems that support a wide range of ecosystem services.



*ECRR Member representatives on the General Members Meeting 2018 field excursion, in the Netherlands. Organisations Wetlands International and STOWA Foundation for Applied Water Research.* 

#### **Executive Summary**

#### i) Improved Understanding

Evidence gathered by the ECRR at its national and international river restoration conferences, from the EU LIFE RESTORE project, the RiverWiki case studies inventory and the FP7 REFORM project highlight the extensive work done on WFD implementation in cycles 1 & 2. With water quality having been significantly understood and improved in many basins, the focus is more and more on overall ecology and addressing hydromorphological pressures and re-establishing lateral and longitudinal connectivity. Practical applications commonly rely on pilot projects in small and large rivers targeted for subsequent upscaling, using qualitative and quantitative survey, modelling and monitoring tools. This work on rivers also inevitably combines urban resilience, sustainable land use and hydropower, as well as ecological and economic benefits.

#### ii) River Basin Management Planning

The WFD prescribes a River Basin Management Planning process integrating all activities within sustainable water management. The ECRR can confirm the significant shift from local science-oriented river restoration practices targeting single species or river reaches towards much larger-scale integrated, cross-sectoral approaches at the river valley and river basin level. River and floodplain restoration, re-establishing fish migration and sustainable flood protection requires consultation with and support of local stakeholders and public, as well as sound preparation - inventories, modelling, long-term monitoring and adaptive working. Increasingly attention is paid to balancing ecological and socio-economic needs and the application of accepted principles such as ecosystem services, sustainable & precautionary planning and decision making, and stakeholder involvement at all relevant levels, including at transboundary scale. Through this, WFD implementation strengthens common understanding and creates the enabling environment for targeted action on addressing ecological concerns in sustainable development planning, design and implementation.



Participants of the Sustainable Hydropower Conference, Sweden 2019. Organisation: Swedish Agency for Marine and Water Management

#### iii) Progress of Implementation

The ambitions of the WFD are high, for governance as well as ecology. To achieve these ambitions in the iterative process over several implementation cycles requires time and, in all countries, more time than was initially expected. Some countries started from less developed positions than others. The 'one-out-all-out' rule reflects this high ambition. It provides good protection and ensures all pressures and impacts are addressed. But <u>all progress</u> should be reported more to recognise national investment of public funds, to provide politicians with greater confidence and to reflect the incremental achievement of restoring the ecology of natural systems.

In Central and Eastern European countries the RBMPs approach is seen as a powerful tool. However, the restoration of the natural condition of rivers is seen by many to be unrealistic in terms of economics and timescale. In these countries, the WFD is often seen as overambitious and hard to incorporate at the national level. These regional pressures and economic constraints need to be recognized and managed to allow these countries to reach achievement, from what is often a lower starting point.



As various examples of the diverse situations, let's say that in Spain, the Directive created opportunities for much needed sound long term monitoring plans, providing more availability of information and data and better scientific information; but once again this is still taking significant time and energy, which has not then been able to have been spent on implementation. In the UK and the Netherlands, understanding of the 'ecological status' concept, both through science and practice, was already well advanced providing a better starting point. On morphology, ecology, flood risk, the initial work was to better integrate understanding in government planning. However, achieving good status or potential in these countries is still problematic due to diffuse pollution. Regardless some difficulties, this is beginning to be overcome by the empowerment of local groups as delivery partners working together in their communities to encourage change.

#### iv) Institutional Integration

The integrative complexity between European policies and within national government departments can cause very significant blockages and delays, with directives institutionally divided among different administrative agencies. For example, Sweden has developed strong hydropower legislation, but this took 15 years to achieve, to enable work to begin in a coordinated way. In Norway, it has taken 12 years to reach integrated objectives for water management that cover most of the relevant sectoral authorities like environment, energy, agriculture and aquaculture. In the UK, integrating biodiversity and flood 'enhancement works' programmes took time to align, and in some Central and Eastern European countries water management and nature protection still have opposing remits. In Poland, ministry collaboration has resulted in the recent 'Catalogue of good practices in hydrotechnical works and river maintenance including the methods of their application'<sup>2</sup>. Issued together by the Ministry of Maritime Economy and Inland Navigation and the Ministry of Environment, the catalogue has been prepared by a wide range of specialists and has been accepted widely both by Water Management authorities and NGOs.

Often progress has been slower that might have been desirable, but these large-scale institutional changes show that although some aspects of the WFD might be difficult to implement, it has been an important driver to improve water governance and increase focus on, and funding for water management, and the member states are doing a lot to fulfil its requirements.



ECRR Presenting ECRR Submission conclusions in the EUROPE-INBO2019 Conference in Finland. Organisation: INBO France ©OIEau2019

<sup>2</sup> https://www.gov.pl/documents/1379842/1381036/KDP\_01\_-\_Summary\_2. pdf/19dc14d1-fb53-ee6a-7de5-82a5c010baa8

#### **ECRR's Conclusion**

It is generally not the WFD and RBMP instruments causing problems in achieving results. The regulation itself is clear and well justified. The challenge to be addressed is still an improved implementation at the local, regional or national levels. This is often based on conflicting objectives, lack of policy coherence or lack of political willingness and understanding, that often negatively influence the use of the instruments. This is further compounded by a lack of positive feedback from the Commission, due to the reliance upon percentage of GES/GEP attainment reporting. ECRR remains very much supportive of the WFD and does not want to see it or its ambition weakened. The WFD fits very well with the concept and vision of river restoration promoted by the ECRR, which is expressed by the UN Decade on Ecosystem Restoration aimed at restoring degraded and destroyed ecosystems. It is likely that if the requirements for the WFD are lowered, then the status of rivers will not be subject to as many restoration actions at either a national or an EU-scale.

The full submission can be downloaded: here.



Storforsen rapids, Vidsel Sweden. ©Bart Fokkens

#### **ECRR Concluding Statements**

ECRR supports the aim and ambition of the Water Framework Directive. ECRR does not wish to see it diluted or reduced in its scope. ECRR is confident that much of the change in water governance and management across Europe over the past 20 years would not have taken place, been slower and delayed and not as effective without the WFD.

ECRR has highlighted different themes where there are issues and where improvements can be made by the European Commission, by national governments and by ministries.

ECRR has shown that river continuity restoration urgently needs EU backing to integrate it into national strategies that underpin the ambitions of the WFD and the implementation of RBMP's. This should specifically include the removal of obsolete dams and barriers.

ECRR has reported the ongoing tensions between Renewable Energy and WFD targets in relation to hydropower. Cross-policy EU guidance is needed to ensure the proper regulation and



correct balance between sustainable hydropower generation and a healthy natural river environment.

ECRR has indicated the progress and shortcomings of different approaches to water governance at the national and local levels. The successes of some countries should be shared and guidance produced to aid other countries to better interpret and implement truly meaningful and engaging local community planning and problem solving.

ECRR has highlighted the impact of WFD in supporting and creating more and better transboundary cooperation and action. Existing calls to increase and extend this success should be actioned.

ECRR has responded across the various EU directives, policies and strategies that relate to the water environment. We have shown that there are many areas where clarity and better integration would result in the achievement of greater benefits, and ensure a more sustainable natural and built environment for future generations.

ECRR supports the 'one-out-all-out' arget, and has suggested the need for more transparent and positive reporting of positive progress towards the aims and goals of the WFD. This is to ensure that implementation effort is clearly, visibly and politically seen to be delivering the significant (but gradual) improvement to our water environment.

## SUMMARY REPORT 17<sup>th</sup> INTERNATIONAL "EUROPE INBO 2019" CONFERENCE FOR THE IMPLEMENTATION OF THE EUROPEAN WATER DIRECTIVES

The 17<sup>th</sup> conference of the «EUROPE-INBO» group, which took place in Lahti, Finland, from 17 to 20 June 2019, gathered 142 participants, representatives of national and local administrations, basin organizations and elected officials as well as of NGOs, companies, international and regional organizations and academic institutions, coming from 30 countries.

The work of the «EUROPE-INBO 2019» conference was organized around a workshop on the integration of Nature-Based Solutions (NBS) into the WFD's Programs of Measures for the restoration of basins with a focus on lakes and in five sessions. The full 'Declaration of Lahti' can be downloaded: here.

# Roundtable 1: Water Quality: the objective of good ecological status and the challenge of microplastics.

Since the adoption of the WFD, new strategies and policies have been launched on «new» pollutants generated by the use of substances necessary for the health of humans, animals or plants, and micropollutants, which include microplastics that are becoming a major global problem for the environment and biodiversity.

Plastics are non-biodegradable and composed of chemical additives, some of which having a high toxicity and have an impact on the marine fauna and finally, of course, on human health. The policies and strategies implemented to eradicate microplastics must be taken into account in the assessment objectives of the WFD.

#### Roundtable 2: Agriculture and climate change: the stakes for agroecology, non-point source pollution, water availability.

One of the main impacts of pressures on surface water bodies is nutrient enrichment, which leads to eutrophication and therefore mortality of the aquatic ecosystem, to which must be added the difficulties of producing drinking water.

The new CAP, beyond 2020, is under development and aims to make agricultural policy more responsive and adapted to current and future challenges. However, the challenges facing agriculture are not simple in a context of changing climate, demography and consumption patterns. To support the preparation of the new CAP and its relations with water, a public consultation on the impacts of agricultural policy on water will be carried out at the beginning of 2020. It will feed an assessment of the CAP impact on water.

There is a need to better integrate water management concerns into agricultural policy. Conversely, for effectiveness in the field, it is necessary to ensure that water policy takes into account the constraints and realities of the agricultural sector. For this purpose, it is necessary to engage local farming communities in the processes of drafting basin management plans and programs of measures.



Opening speach EUROPE-INBO 2019 Conference by Ms. Hannele Pokka, Permanent Secretary, Ministry of the Environment Finland. © OlEau 2019



Workshop Integration of Nature based Solutions (NBS) into WFD Program of Measures. Opening by Mr. Eric Tardieu, INBO Secretary General. © OlEau 2019



Keynote speaker Ms. Maria Babukchieva, Head of River Management Department'Ministry of Environment and Water, Bulgaria. © OIEau 2019



# Roundtable 3: Towards a practical review of the WFD application: how to deal with exemptions and "one-out all-out" principle.

The WFD allows using the exemptions for achieving the objectives. Article 4.4 of the Directive allows for the postponement of the deadline for achieving environmental objectives good ecological status or potential, good chemical status and good quantitative status of groundwater. The possible postponement concerns two management cycles from 2015 onwards, this means until 2027.

The exemption could be justified with technical feasibility or disproportionate costs. After 2027, the postponement can be justified only with natural conditions. Therefore, all the measures necessary to achieve the objectives have to be implemented by 2027.

The good ecological status of a water body is considered to be reached if all the quality elements are qualified as being good and the overall status is based on the lowest any quality element. ; it is the «one out all out» principle. With such a principle, the ecological classification thus obtained does not reflect the partial progress made in the basins.

Up to now, many countries have used exemptions mainly focused on the extending the deadlines for achieving the environmental objectives. For the next update of the RBMPs there might be necessary that the Basin Organizations start the discussion on defining less stringent objectives. It was suggested that this discussion should be started between the Basin Organizations.

The EUROPE-INBO members consider that the «one out all out» principle do not necessary show all the improvement in the water quality. It is important to develop other indicators, which could be more informative and they could be used in communication and hearing processes.

The RBMPs include a lot of information, because they are designed to be reporting tools. The reporting is done nowadays electronically, which gives MS/River Basin Authorities more flexibility to develop more informative tools for public. In addition, a short report could be drafted to highlight the results achieved during the WFD implementation cycle in the basin.

# Roundtable 4: Integrated management of basins and coastal waters: strengthening consistency.

The WFD and Marine Strategy Directive share the waters of the coastal area called «coastal waters». The review of both Directives shows many similarities in terms of purpose or methodology. Nevertheless, there are differences, e.g. on the definition of good status, on indicators or approaches.

To improve the effectiveness of both coastal water directives, it is essential that consistency between the directives and the cooperation between its stakeholders should be significantly increased. A real synergy should be developed between the WFD and the Marine Strategy Directive.

#### Roundtable 5: International and Transboundary Cooperation (especially under the WFD, between Member and Non-Members States).

Transboundary water cooperation, equitable and reasonable water allocation between riparian countries and all water uses and the observance of the monitoring programmes for quality and and river flows are keys to improve water security for societies, natural ecosystems and the environment.

The members of EUROPE INBO warmly welcome the recent EU Council Conclusion of Water Diplomacy: it gives us a strong political backbone for our future efforts to strengthen water cooperation and using water talks as a route to avoid or solve conflicts.

With a view to greater efficiency, pooling the work would be advisable and complementarity with the work of the CIS (European Common Implementation Strategy) should be sought for better WFD implementation as well as a convergence of national policies within these transboundary districts.

#### Conclusions of the Workshop on integration of Nature-Based Solutions (NBS) into the WFD's Programs of Measures for the restoration of basins:

Nature based solutions (NBS) are trending as they simultaneously have the capacity to restore degraded ecosystems, to improve society resilience and risk management, to mitigate climate change impacts, and to offer solutions for sustainable land management and planning.

However, the potential of NBS for water management should not be undervalued: they constitute a key towards better integration and linkages between biodiversity and water management policies, by providing cross-sectoral and practical solutions.

The objective of this workshop was to compare practices and concrete experiences of Member States and basin organizations on dealing with the implementation of NBS and its integration into water resources management, flood risk, ecosystems and water quality and promote the exchange of questions and solutions in this domain.



Welcome cocktail with speeches by the Finish organisers and hosts. © OIEau





# World Fish Migration Day, 16th May 2020



The world Fish Migration Foundation have over 100 events registered and more keep on coming in!

If you have not registered your event yet and are looking for ideas, please visit our <u>events page</u> to find out what others are doing. Some of the events include student presentations about local migratory fish, hiking along the river welcoming the spring migratory birds and fish, storytelling at the "rivers and lakes" exhibit in aquariums, seining in the river to show city folk the cool creatures that swim below the surface and many more! Check out the events page for some inspiration and register your event now!



Take a look at this great video from one of our ambassadors in New York, Chris Bowser. He has some excellent ways to get involved and be inspired!

Please help the World Fish Migration Foundation to spread the word about this fun-filled day and encourage others to be a part of the celebration. On their <u>downloads page</u>, you will find a Participant Guide that explains a little bit more about World Fish Migration Day and how to be a part of it. You can also find other materials you may use for your event.

Some ECRR members, like CIREF (The Iberian River Restoration Centre) registered already and for the others it is, or at least should be a must!

## World Rivers Day, 22<sup>nd</sup> September 2019



#### Greetings River Advocates,

**World Rivers Day** is set for September 22<sup>nd</sup> this year (falling on the <u>fourth Sunday in September</u>) and, while this 15<sup>th</sup> annual event is still several months away, it will be here before we know it. Consequently, we're hoping that river advocates from around the globe will start planning events as part of this year's World Rivers Day celebration, which commenced in 2005. This year's theme is "Waterways in our Communities". <u>Please let us know of your plans</u>. World Rivers Day brings millions of people from around the world together to celebrate our waterways and the many life forms they support.



We are excited to again be working with the <u>Sitka Founda-</u><u>tion</u>, a wonderful organization that serves as a catalyst in the protection of the environment and the promotion of biodiversity -- as well as our new sponsor, <u>Patagonia</u>, a global leader in sustainable outdoor apparel and one of the most environmentally conscious businesses on the planet. In addition, we want to thank other sponsors such as the <u>Real Estate Foundation of</u> <u>BC</u> and the <u>Pacific Salmon Foundation</u>. We are also proud to be working with the <u>International RiverFoundation</u>, based in Brisbane, as organizational co-lead for the event, along with our other valued long time sponsors/supporters such as the United Nations University, the International Network on Water,

BC and the Hope Mountain Centre for Outdoor Learning. Visit our website at <u>www.worldriversday.com</u> to find out more about **World Rivers Day**, and please let us know about any activities you may organize. We can help your promotions via our website, as well as with e-mails like this one. Last year, river enthusiasts from around the world came together to make World Rivers Day a great success, with **millions of people participating in more than 70 countries**. Activities ranged from stream clean-ups and habitat enhancement projects to educational outings and community riverside celebrations. This year's global event will be even bigger! World Rivers Day is based on the incredible success of **BC Rivers Day** in British Columbia, Canada, which has been underway since 1980.

Environment and Health, the Outdoor Recreation Council of



#### **Promoting River Stewardship**

World Rivers Day is a celebration of the world's waterways. It highlights the many values of rivers and strives to increase public awareness and hopefully encourage the improved stewardship of rivers around the world. Rivers in every country face an array of threats, and only our active involvement will ensure their health in the years ahead.

#### Join the Celebration!

World Rivers Day organizers encourage all of you to come out and participate. In particular, consider starting a Rivers Day event of your own, which might range from a stream cleanup to a community riverside celebration. And if you create an event, be sure to tell us about it! We'll keep you posted in the months ahead as new Rivers Day activities are announced.

#### **International Partners**

World Rivers Day is intended to complement the broader efforts of the **United Nations** water related programs, including the Water For Life Decade initiative which we worked closely with right up to its completion in 2015 along with the United Nation's new **Water Action Decade**. We also look forward to continuing to work with groups such as the **United Nations University** in the months ahead to promote this event and encourage new participants. In launching World Rivers Day back in 2005, we also greatly appreciated the support of the United Nations University and the **International Network on Water, Environment, and Health**.

#### Special thanks to our World Rivers Day partners and sponsors:

- <u>Sitka Foundation</u> gold sponsor
- <u>Patagonia</u> gold sponsor
- <u>Real Estate Foundation of British Columbia</u>
- Pacific Salmon Foundation

• <u>International RiverFoundation</u> (organizational co-lead based in Brisbane)

- Hope Mountain Centre for Outdoor Learning
- <u>United Nations University</u>
- International Network on Water, Environment and Health
  Outdoor Recreation Council of BC

(Additional Rivers Day sponsors to be announced in the weeks ahead).

To find out more about water issues, and how to get involved with World Rivers Day, visit the websites below for more information.

World Rivers Day

#### **BC Rivers Day**

<u>United Nations University - International Network on Water,</u> <u>Environment and Health</u> <u>United Nations Water Action Decade</u>

Yours truly, Mark Angelo Chair, BC and World Rivers Day Outdoor Recreation Council Rivers Chair Chair Emeritus, Rivers Institute at BCIT

## **Towards a free flowing Sélune!**

Taking place near Mont St. Michel, this conference will feature the Sélune dams' removals project at the heart of this great event. Many other examples from France and abroad will be the basis of inspirational exchanges and debate.

The conference in both French and English is targeted at experts scientists, managers NGO's and Government representatives, but also users of the Sélune river.





## THE ECRR ASSOCIATION MEMBER AND PARTNER ORGANISATIONS



3<sup>10</sup> INTERNATIONAL CONFERENCE Integrative sciences and sustainable development of rivers

# AGENCE FRANÇAISE POUR LA BIODIVERSITÉ

ÉTABLISSEMENT PUBLIC DE L'ÉTAT





Finnish Environment Institute











Wetlands INTERNATIONAL

Swedish Agency for Marine and Water Management



BIIN



FOUNDATION



FOR APPLIED WATER RESEARCH







ECRR Events calendar 2019

Data ( and all		La carta c	
Date / period	Title / issue	Location	Links
25 – 30 August, 2019	World Water Week	Stockholm, Sweden	http://www.worldwaterweek.org
7 – 10 September, 2019	River Flow Conference 2020	Delft, Netherlands	http://www.riverflow202.nl
8 – 13 September, 2019	Symposium Riverine Land- scapes and coupled socio – ecological systems	Vienna, Austria	http://www.riversociety.org
8 – 13 September, 2019	6 <sup>th</sup> Biennial Symposium of the International Society for River Science	Vienna, Austria	http://isrs2019.info
16 – 18 September, 2019	Water Security: New Technolo- gies, Strategies, Policies and Institutions	Beijing, China	https://members.awra.org/DevMembers/ Events_and_Networking/Events/internation- al_conference_Water_Security_New_Technolo- gies_Strategies_Policies_and_Institutions.aspx
22 September 2019	World Rivers Day	Global	www.worldriversday.com
23 – 27 September, 2019	Biennial Symposium "Clean Water of Russia – 2019"	Ekaterinburg, Russia	http://wrm.ru/index.php?id=263
24 – 26 September, 2019	Towards a free flowing Sélune. International Conference on dam removal and the restora- tion of the Sélune River	Rennes, France	www.ern.org/en/colloque-international-selune/
20 – 24 October, 2019	22 <sup>nd</sup> International River Symposium	Brisbane, Australia	http://riversymposium.com/2019- riversymposium
16 <sup>th</sup> May 2020	World Fish Migration Day	Global	www.worldfishmigrationday.com
23 – 29 May, 2020	13 <sup>th</sup> International Symposium on Ecohydraulics	Lyon, France	Deadline to submit abstracts: 30 <sup>th</sup> October, 2019 https://symposium.inra.fr/ise2020/
11 – 19 June 2020	IUCN World Conservation Congress	Marseille	www.iucncongress2020.org

## 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

## Free ECRR Network Subscribent

All who are interested in river restoration and sustainable water management are encouraged to join the ECRR. Subscribents receive the ECRR Newsletter about four times a year and are the first to be informed about activities by the ECRR, its members and partner organisations.

To register, go to www.ecrr.org.

If you want to unsubscribe for the newsletter, please send an email to info@ecrr.org.



This news letter is a co-production by the Iberian River Restoration Centre (CIREF) and the Russian Research Institute for Integrated Water Management and Protection (RosNIIVHk) as National River Restoration Centres and members of the European Centre for River Restoration (ECRR).

