

# THE CONSERVATION AND MANAGEMENT OF RIVERS: 20 YEARS ON



**An international conference at the University of York, UK  
6-9 September 2010**

## Third circular and draft programme

### Overview

In September 1990 the Nature Conservancy Council organised an international conference on 'The Conservation and Management of Rivers'. The conference was truly international, attracting 337 delegates from 29 countries.

By September 2010 twenty years will have elapsed since the York conference. A huge amount has changed in the world since then – economically, politically, culturally, scientifically. This conference will look back over this period and assess the changes in river conservation – how the environment has changed, how the legislation and policies that drive conservation have changed, how organisations have changed, how techniques for practising river conservation have changed, and how public attitudes have changed. What predictions did we make in 1990? Which have been proved accurate and which have not? Where have we succeeded and where have we failed?

The 2010 conference provides an opportunity both to share experience as we look back over the last 20 years, and to use the lessons of the past to look 20 years on into the future.



## **Aims**

The conference, sponsored by the Joint Nature Conservation Committee, Environment Agency, Scottish Environment Protection Agency, Northern Ireland Environment Agency, Scottish Natural Heritage, Natural England and the Countryside Council for Wales, will bring together all those with an interest in achieving greater integration of conservation within the management of river systems. It will provide a forum for scientists, policy makers, water resource managers, engineers and nature conservationists to:

- discuss the theory and practice of river conservation
- describe progress in different parts of the world
- define appropriate strategies for the future

The emphasis of the conference will be on habitat and wildlife conservation but will be set within the wider context of water management. The meeting will have a broad, international perspective, and will reflect the range of priorities within and between countries in the developed and developing world.

## **Organising Group**

Professor Philip Boon (Scottish Natural Heritage) (Group chair)  
Dr Nigel Holmes (Alconbury Environmental Consultants)  
Chris Mainstone (Natural England)  
Professor Peter Maitland (Fish Conservation Centre)  
Vicky Morgan (Joint Nature Conservation Committee)  
Professor Malcolm Newson (Tyne Rivers Trust)  
Dr Roger Owen (Scottish Environment Protection Agency)  
Professor Howard Platt (Northern Ireland Environment Agency)  
Dr Paul Raven (Environment Agency)  
Professor Chris Spray (University of Dundee)

## **Dates and venue**

The conference will return to the same venue as in 1990 (Central Hall, University of York), and will run from Monday 6 September to Thursday 9 September 2010.

## **Draft programme**

The draft programme (set out at the end of this circular) contains 63 papers for oral presentation, covering a broad range of topics and describing aspects of river conservation and management in 19 countries. We anticipate that there will also be a wide variety of posters on display, and this will broaden the scope of the conference still further.

NB: Please note that the contents and detailed timing of the programme are subject to change, but the overall structure and general timings for the whole event and for each day are likely to remain the same.

Plenary sessions will be held in Central Hall. On Wednesday 8<sup>th</sup> September, a parallel session will be held in a lecture theatre nearby. Posters will be on display near to the main lecture area from Monday to Wednesday.

A selection of papers from the conference will be published by Wiley-Blackwell in an edited book, as a sequel to *River Conservation and Management*<sup>1</sup> derived from the York conference in 1990. Delegates presenting papers at the conference (including poster papers) are invited to submit a manuscript version upon their arrival in York. Further details on manuscript format will be sent out once the programme has been finalized. Acceptance of a paper for inclusion in the programme does not guarantee its publication. Papers for publication will be selected from those presented and be subject to refereeing and editorial review.

To help keep the administration as simple as possible there will be no organized excursions before, during or after the conference. If you would like to see more of the area, or to visit colleagues in other institutions in the UK, please make your own arrangements.

### **Accommodation and meals**

We anticipate that most delegates will want to stay on campus to benefit from the convenience of being close to the conference lecture theatre, for the opportunity to meet other delegates, and for the preferential rates for overnight accommodation. The rooms on campus are all en suite single study bedrooms with internet access, and are situated just a few minutes walk from Central Hall. Please note that there are few twin rooms available, so the opportunity to accommodate accompanying persons on campus is limited and you are advised to book early if you wish to take up this option.

If you wish to make a booking as a day delegate you will need to make your own arrangements for hotel or bed & breakfast accommodation in York. Unfortunately, the organizers are not able to provide information on this or to assist with bookings; instead, we recommend that you contact the offices of 'Visit York' who will be able to assist you with your enquiry:

Visit York  
De Grey Rooms  
Exhibition Square  
York YO1 7HB  
UK  
Tel: +44 (0) 1904 550099  
E-mail: [info@visityork.org](mailto:info@visityork.org)  
<http://www.visityork.org/>

All meals will be served on campus, including the conference dinner on Wednesday night.

### **Travel to York**

The nearest airport to York is Leeds-Bradford (55 km). Delegates arriving in London by air can reach York by train from King's Cross station. The journey takes approximately 2 hours. Manchester and Newcastle airports also have good rail links to York, the former taking just under 2 hours with direct trains from the airport to York station, and the latter taking about an hour and a half including a rail link from Newcastle airport to the central station in Newcastle.

Details on rail times and the cost of tickets can be obtained from the website of National Rail Enquiries <http://www.nationalrail.co.uk/> or by telephone on: 08457 48 49 50 (from the UK)

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<sup>1</sup> Boon PJ, Calow P and Petts GE (eds) (1992). *River Conservation and Management*. John Wiley, Chichester

+44(0)20 7278 5240 (from overseas – international rates apply)

We are unable to provide transport from York railway station to the University, but the journey by bus or taxi takes only 10-15 minutes.

### **Conference bookings**

All conference bookings will be made through the University of York website, following the link:

<https://store.york.ac.uk/events/default.asp?compid=1&ModuleID=2>

You will be asked to provide details of your name, address and contact details, together with the option you wish to select (e.g. residential delegate, early booking). Payment must be made online at the time of booking. If it is not possible to make your booking and pay online, please contact Zena Bailey by e-mail ([RiversConference2010@jncc.gov.uk](mailto:RiversConference2010@jncc.gov.uk)) to discuss alternative arrangements.

Delegates from some countries may need letters confirming their registration to help them obtain visas. If so, please contact the conference organizers.

The deadline for booking at the early booking rate is Friday 30<sup>th</sup> April 2010.

The final deadline for booking is Friday 16<sup>th</sup> July 2010

### **Conference fees**

The fees structure below offers a variety of options to suit different needs and circumstances. These options include a range of concessionary rates to those who book early, to students in full-time education, to retired delegates, and to participants from less developed countries. Details on the last of these, and on financial assistance, are given in the next section.

The following fees cover the full period of the conference, and include VAT at 17.5%. Please contact the organizers to enquire about rates for 1, 2 or 3 days:

Residential delegate:	£420
Residential delegate (early booking):	£370
Residential delegate (concessionary rate):	£370
Residential accompanying person: (very limited availability)	£280
Non-residential day delegate:	£270
Non-residential day delegate (early booking):	£240
Non-residential day delegate (concessionary rate):	£240

#### All residential delegate fees include:

- registration
- 4 nights' accommodation (5<sup>th</sup>-8<sup>th</sup> September, inclusive)
- breakfast
- mid-morning tea/coffee
- lunch
- mid-afternoon tea/coffee
- dinner
- evening reception

- conference dinner (Wednesday 8<sup>th</sup> September)
- book of abstracts

All non-residential day delegate fees include:

- registration
- mid-morning tea/coffee
- lunch
- mid-afternoon tea/coffee
- evening reception
- conference dinner (Wednesday 8<sup>th</sup> September)
- book of abstracts

The accompanying persons fee includes dinner, bed and breakfast

**Concessionary rates and financial assistance for delegates for less developed countries**

The conference has an international perspective, and will reflect the range of priorities within and between countries in the developed and developing world. In order to encourage participation from delegates from less developed countries we are offering a lower registration fee. This rate will only apply to the countries listed below. The list is based on GNI per capita, and has been provided by Reach4Life, a public-private partnership including WHO, FAO and UNEP whose goal is to help attain six of the eight UN's Millennium Development Goals by 2015, reducing the scientific knowledge gap between industrialized countries and the developing world.

The extent to which we can offer additional financial assistance to delegates will depend upon the outcome of various enquiries we are making at present concerning sponsorship. However, if you are applying from one of the listed countries you may complete the form below and we will contact you before the end of March to let you know whether or not we can offer any further support.

Afghanistan	Madagascar
Angola*	Malawi
Armenia*	Mali
Azerbaijan	Mauritania
Bangladesh	Mongolia
Benin	Mozambique
Bhutan*	Myanmar
Bolivia (Plurinational States of)	Nepal
Burkina Faso	Nicaragua
Burundi	Niger
Cambodia	Nigeria
Cameroon	Papua New Guinea
Central African Republic	Paraguay
Chad	Republic of Moldova
Comoros	Rwanda
Congo	Sao Tome and Principe
Côte d'Ivoire	Senegal
Democratic Republic of the Congo	Sierra Leone
Djibouti	Solomon Islands
Equatorial Guinea <sup>+</sup>	Somalia
Eritrea	Sudan

Ethiopia  
Gambia  
Georgia\*  
Ghana  
Guinea  
Guinea-Bissau  
Guyana  
Haiti  
Honduras  
Kenya  
Kiribati  
Kyrgyzstan  
Lao People's Democratic Republic  
Lesotho  
Liberia

Tajikistan  
Timor-Leste  
Togo  
Tokelau  
Turkmenistan  
Tuvalu  
Uganda  
United Republic of Tanzania  
Uzbekistan  
Viet Nam  
West Bank and Gaza Strip  
Yemen  
Zambia  
Zimbabwe

Application form for financial assistance

I would like to be considered for financial assistance in order to attend the International Conference on River Conservation and Management, York, September 2010

I understand that financial assistance is not guaranteed.

Name of applicant: -----

Address: -----  
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Title: -----

Organization: -----

Profession: -----

Telephone number: -----

Email address: -----

## **DRAFT PROGRAMME (content and detailed timing may be subject to change)**

Monday 6 September 2010

### **Setting the scene**

09.00-09.05 Opening remarks

09.05-09.40 *Introductory presentation (title to be given later) – Phil Boon (UK)*

### **Catchment characteristics and river ecosystems**

09.40-10.15 *Keynote paper (title to be given later) – Malcolm Newson (UK)*

10.15-10.35 Governance structures for effective conservation and river management: 20 years of Tweed Forum – Luke Comins and Chris Spray (UK)

### **10.35-11.00 Tea/coffee**

11.00-11.20 Water, conservation and river basin management: comparing UK and north-east US experience – H. Cook, D. Benson, L. Smith, A. Jordan, K. Porter, M.J. Porter (UK)

11.20-11.40 Quantifying catchment-scale coarse sediment dynamics in British rivers: developing and assessing ST:REAM, a reach-based sediment balance model – Chris Parker, Colin R. Thorne, Nicholas J. Clifford (UK)

11.40-12.00 Catchment hydrological monitoring for water conservation in forest plantations in Brazil – Silvio F. Barros Ferraz, Walter de Paula Lima and Carolina Rodrigues Fontana (Brazil)

12.00-12.20 Twenty-years of large-scale trends in the ecological quality of English and Welsh rivers – Ian Vaughan & Steve Ormerod (UK)

12.20-12.45 Discussion

### **12.45-14.00 Lunch**

### **Ecosystem integrity and the threats to river systems**

14.00-14.35 *Keynote paper (title to be given later) – Jay O’Keeffe (The Netherlands)*

14.35-14.55 Defining ‘significant harm’ for the evaluation of minimum flows and levels in subtropical Florida rivers – James Gore (USA)

14.55-15.15 The effects of deposited sediments on temperate stream invertebrates – Larsen Stefano and Steve Ormerod (UK)

15.15-15.35 Can river management be responsible for freshwater species extinction? – R. Araujo and R. Sánchez (Spain)

15.35-15.50 Discussion

### **15.50-16.20 Tea/coffee**

## **Methods and approaches**

- 16.20-16.40 From 'synthesis' to 'sympathy': how have we progressed persistent challenges in managing natural variability within river systems over the past two decades? – Andy Large (UK)
- 16.40-17.00 Development of a systematic approach to conservation planning for New Zealand's rivers and streams – Leathwick, J.R., Snelder, T., Chadderton, W. L., Moilanen, A., Julian, K., West, D. (New Zealand)
- 17.00-17.20 Emerging trends in freshwater conservation planning: the development of systematic conservation planning approaches for freshwater ecosystems in South Africa – Jeanne Nel and Dirk Roux (South Africa)
- 17.20-17.40 Emerging trends in freshwater conservation planning: improving cross-sector policy integration, cooperation and co-learning in support of freshwater conservation – Dirk Roux and Jeanne Nel (South Africa)
- 17.40-18.00 Discussion  
18.00 Close

## Tuesday 7 September 2010

- 09.00-09.05 Announcements

## **Methods and approaches (cont.)**

- 09.05-09.25 Evidence-based decision making in river conservation: from theory to practice – Marc Naura, Mike J Clark and David A Sear (UK)
- 09.25-09.45 Risk assessment must acknowledge that multiple stressors interact in complex ways in streams and rivers – Colin Townsend, Frances Magbanua, Jeremy Piggott, Annika Wagenhoff and Christoph Matthaei (New Zealand)
- 09.45-10.05 Biological monitoring and classification in the face of uncertainty: challenges, progress and prospects – Andrew Davey and Richard Hemsworth (UK)
- 10.05-10.25 The evaluation of habitats and species conservation status in rivers: beyond legislation – José Barquín (Spain)
- 10.25-10.55 Tea/coffee**
- 10.55-11.15 The relation between taxonomic distinctness of stream insects and salinity levels in rivers in southern Australia – R. Marchant and B. Kefford (Australia)
- 11.15-11.35 The use of palaeoecological techniques to identify reference conditions for river conservation management – Seddon, E.L. Wood, P.J. and Mainstone C. (UK)
- 11.35-11.55 Can Mediterranean river plants translate into quality assessment systems? Venturing into unexplored territories – Maria Teresa Ferreira, Francisca F. Aguiar, I. Dodkins, Maria João Feio, P. Rodriguez-Gonzalez and A. Albuquerque (Portugal)
- 11.55-12.30 Discussion

**12.30-14.00 Lunch**

**The integration of nature conservation with wider management objectives**

- 14.00-14.35 *Keynote paper (title to be given later) – Peter Bridgewater (UK)*
- 14.35-14.55 What have rivers ever done for us? Ecosystem services and river systems – Mark Everard (UK)
- 14.55-15.15 The Glen Canyon Dam Adaptive Management Program: recent progress, immediate challenges – John Hamill (USA)
- 15.15-15.35 Dams and mussels: the challenge of coexistence – James B. Layzer (USA)
- 15.35-15.55 The resurgence of hydropower development in the UK: mitigation of environmental impacts – Vowles, A. S., Karlsson, S., Watkin, L. J., Russon, I. J., and Kemp, P. S. (UK)
- 15.55-16.15 Discussion

**16.15-16.45 Tea/coffee**

- 16.45-17.05 Hydromorphological pressures: how should watershed risk analysis, reach alterations and physical character of streams be combined ? – Chandesris A., Malavoi J.R., Mengin N., Villeneuve B., Souchon Y. (France)
- 17.05-17.25 Conservation of regionally threatened plant species and habitats of European importance (92/43/EEC Directive) versus management of water resources in the valley of a large lowland river – Wojciech Stachnowicz (Poland)
- 17.25-17.45 Integrating habitat conservation with amenity and recreation uses along an urban stretch of the Adige River, Italy – Maria Giovanna Braioni, Anna Braioni, MariaCristina Villani, Gianpaolo Salmoiraghi (Italy)
- 17.45-18.00 Discussion
- 18.00 Close

Wednesday 8 September 2010

09.00-09.05 Announcements

09.05-09.40 *Keynote paper (title to be given later) – Steve Ormerod (UK)*

09.40-09.50 Pause while delegates move to parallel session

*NB: Parallel session A (morning and afternoon) in Central Hall; parallel session B (morning and afternoon) in Biology (BB002) lecture theatre*

**Parallel session A: The relevance of climate change to river conservation**

- 09.50-10.10 Certain uncertainty: implications of climate change for Australia's large desert river-floodplain ecosystems – Samantha J. Capon (Australia)

- 10.10-10.30 Climate change and its effects on the management and conservation of river basin characteristics – James Omolo (Kenya)
- 10.30-10.50 Conservation and management of Indian rivers in a changing climate and environment – K. Shadananan Nair (India)
- 10.50-11.20 Tea/coffee**
- 11.20-11.40 Predicting ecological effects of climate change from archived data on heated rivers – T.E.L. Langford, P.J. Shaw, C.M. Woolgar, T.A. Worthington (UK)
- 11.40-12.00 To be announced
- 12.00-12.30 Discussion

### **Parallel session B: River conservation in the Murray-Darling Basin**

- 09.50-10.10 Managing a mosaic: the Lower River Murray, South Australia – Keith Walker (Australia)
- 10.10-10.30 Ecosystem objectives and their adaptation in changing environments – Ian Overton (Australia)
- 10.30-10.50 Is the River Murray Valley losing its eucalypts? – Anne Jensen (Australia)
- 10.50-11.20 Tea/coffee**
- 11.20-11.40 Creation of a fresh artificial groundwater lens: a new approach to preservation of floodplain riparian vegetation – Tanya Doody, Kate Holland, Richard Benyon and Ian Jolly (Australia)
- 11.40-12.00 Modelling the provision of environmental flows across the Murray-Darling Basin and the implications for consumptive water use – Bill Young (Australia)
- 12.00-12.30 Discussion
- 12.30-14.00 Lunch**
- 14.00-14.35 *Keynote paper (title to be given later) – Matt Kondolf (USA)*
- 14.35-14.45 Pause while delegates move to parallel sessions

### **Parallel session A: The recovery and rehabilitation of rivers and streams**

- 14.45-15.05 The development and role of river restoration centres around the world since 1990 – Nigel Holmes and Martin Janes (UK)
- 15.05-15.25 Long-term effects of river rehabilitation: River Skerne and River Cole 15 years on – Ulrika Åberg (UK)
- 15.25-15.45 A guidance manual to help deliver appropriate river restoration appraisal to increase evidence-base of success and incorporate appropriate adaptive management strategies – Jenny Mant, Di Hammond, Martin Janes and Andy Gill (UK)

15.45-16.10 Discussion

**16.10-16.40 Tea/coffee**

16.40-17.00 Fifty years of ecological recovery from pollution: lessons from the unnatural history of the River Trent – T.E.L. Langford, T.A. Worthington, P.J. Shaw, P. Kemp, A.J.D. Ferguson and P. Harding (UK)

17.00-17.20 Multifaceted, interlaced and without barriers – the new Emscher ecological concept – Mechthild Semrau and Rudolf Hurck (Germany)

17.20-17.40 Conservation and rehabilitation strategies for temporary Mediterranean river corridors: a case study of the Pardiela basin, southern Portugal (Guadiana basin) – Manuela Morais (Portugal)

17.40-18.00 Discussion

18.00 Close

**Parallel session B: Species management and conservation**

14.45-15.05 The contribution of the hyporheic zone to the fauna of UK rivers – Willby N, Wood P, Rundle S, Pryce D, Robertson A, Boon P and Gilvear D (UK)

15.05-15.25 Conservation and management of freshwater pearl mussel populations: the challenge of climate change – Peter Cosgrove, Lee Hastie, Jon Watt, Iain Sime and Phil Boon (UK)

15.25-15.45 Considering amphibians and salmon: designing headwater linkage areas to conserve multiple taxa – Kelly Burnett, Deanna Olson, and Dan Miller (USA)

15.45-16.10 Discussion

**16.10-16.40 Tea/coffee**

16.40-17.00 From the mountains to the sea: the effect of climate change on salmonid freshwater and estuarine habitats in the Pacific northwest – Rebecca Flitcroft, Kelly Burnett, Sarah Lewis, Kelly Christiansen and Gordon Grant (USA)

17.00-17.20 Barriers to migration: the plight of eels and other anguilliforms – Adam Piper, Iain Russon and Paul Kemp (UK)

17.20-17.40 The role of bryophyte communities on conservation status assessments of rivers in Northern Portugal – Cristiana Vieira (Portugal)

17.40-18.00 Discussion

18.00 Close

**19.30 Conference dinner**

Guest speaker – Brian Moss (UK)

Thursday 9 September 2010

09.00-09.05 Announcements

09.05-09.40 *Keynote paper (title to be given later) – David Dudgeon (Hong Kong)*

09.40-10.15 *Keynote paper (title to be given later) – Robin Abell (USA)*

10.15-10.35 Discussion

**10.35-11.05 Tea/coffee**

**Geographical case studies**

11.05-11.20 The disappearing of inland river ecosystems, a case study on the degradation of Wulungu River under the human exploitation and climate change – Changqing Yu (China)

11.20-11.35 In the Indus Delta it is no more the mighty Indus – Muhammad Zafar Khan and Ghulam Akbar (Pakistan)

11.35-11.50 Sustainable floodplain management through linking of major rivers in India – S.K.Sharma (India)

11.50-12.05 Long-term monitoring of stream health in Uganda and implications for climate change – Aventino Kasangaki (Uganda)

12.05-12.20 Attempts to protect a New Zealand river – Niall Watson (New Zealand)

12.20-12.45 Discussion

**12.45-14.15 Lunch**

14.15-14.50 *Keynote paper (title to be given later) – Stuart Bunn (Australia)*

14.50-15.15 The conservation and management of rivers: 20 years further on – Peter W. Downs (USA)

15.15-15.45 Discussion

15.45 Close