



[www.sefs2013.de](http://www.sefs2013.de)

# Symposium for European Freshwater Sciences

JULY 1-5, 2013 | MÜNSTER, GERMANY | PROGRAMME



CONFERENCE TIMETABLE

	Sunday, June 30, 2013	Monday, July 1, 2013	Tuesday, July 2, 2013	Wednesday, July 3, 2013	Thursday, July 4, 2013	Friday, July 5, 2013
08:30						
08:45						
09:00		Opening	Plenary 3		Plenary 5	Plenary 7
09:15			Plenary 4		Plenary 6	Plenary 8
09:30		Plenary 1				
09:45		Plenary 2	Morning Break		Morning Break	Morning Break
10:00						
10:15						
10:30						
10:45						
11:00		Morning Break				
11:15			Talks		Talks	Talks
11:30						
11:45						
12:00		Talks				
12:15						
12:30						
12:45						
13:00		Lunch	Lunch		Lunch	Lunch
13:15						
13:30						
13:45						
14:00						
14:15						
14:30		Talks	Talks		Talks	Closing
14:45						
15:00						
15:15						
15:30		Afternoon Break	Afternoon Break		Afternoon Break	
15:45						
16:00						
16:15						
16:30		Talks	Talks		Talks	
16:45						
17:00						
17:15						
17:30						
17:45			Posters		Posters	
18:00						
18:15						
18:30						
18:45		Discussion Forum "Ethics in Science"	EFFS Meeting		EFYR Meeting	
19:00						
19:15						
19:30						
19:45						
20:00-23:00	Welcome				Dinner	

## FRESHWATER SCIENCE FOR NATURE AND SOCIETY

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### Welcome to the 8<sup>th</sup> Symposium for European Freshwater Sciences held in Münster, Germany, from July 1–5, 2013

The meeting is hosted by the German Limnological Society (DGL) in collaboration with the University of Münster (WWU Münster) and co-organized by four regional LIFE+ projects (running water). The organizers are pleased to welcome delegates from 36 countries. Münster is a place with a tradition in freshwater sciences. About 100 years ago, August Thienemann, one of the founders of the International Society of Limnology (SIL), spent the first years of his scientific career in Münster, from 1907-1917. Since that time, many interdisciplinary research groups focusing on fundamental and applied water sciences have been established. They are affiliated to different faculties and departments within the WWU and the University of Applied Sciences, and many teaching and research collaborations have been shaped. An active communication on both local and regional levels between water authorities, agencies and academic institutions engaged in water-related and environmental issues yields a close and fruitful linkage of science and practice.

With the guiding theme „Freshwater Science for Nature and Society“ the SEFS 8 aims at integrating recent insights from ecological and evolutionary perspectives into improved knowledge of the diversity, dynamics and functioning of freshwater ecosystems. Freshwaters and their biota are increasingly subject to anthropogenic pressures and a complex interaction of abiotic and biotic stressors. Hence, understanding of the causes and effects of environmental stress in reference to the natural state of freshwater systems and implementation of this knowledge shall foster innovative research and solutions for sustainable management and societal concerns.

The meeting will provide a cross-disciplinary platform for discussion of research reaching from the level of genes and cells to ecosystems and landscapes. Contributions range from theoretical and basic to methodological and applied studies and particularly target integrative approaches.

Delegates can expect not only concurrent scientific sessions, workshops and interesting technical excursions, yet as well plenary lectures related to the key topics of the conference featuring state-of-the-knowledge. Further, we are proud to introduce as a premiere the winners of the newly launched EFFF Award for the best PhD Dissertation in Freshwater Science and by that, implementing a new element of the SEFS. The three best rated dissertations will be exhibited at the conference venue and the authors honoured during an award ceremony. This time's winner, Diego Tonolla, will open the scientific programme with the first plenary talk.

Dear participants, Münster is not only a city of science and learning, but is outstanding in many other respects, too – come and see! We are happy to meeting you in our great city and anticipate a seminal and inspiring conference.

On behalf of the Organizing Committee



**Prof. Dr. Elisabeth I. Meyer**

President of the German Limnological Society  
 Head of Department of Limnology  
 Institute for Evolution and Biodiversity  
 University of Münster

**Conference Chair SEFS 8, 2013**

#### Title pictures

Aase: Presseamt Stadt Münster/Bernhard Fischer  
 Rathaus, Schloss: Presseamt Stadt Münster/MünsterView  
 Lippe: Blossey

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## LOCAL ORGANIZING COMMITTEE

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**Thomas Weisse**

University of Innsbruck  
Research Institute for Limnology, AT

## CONFERENCE VENUE

### Mövenpick Hotel Münster

Kardinal-von-Galen-Ring 65 | 48149 Münster, Germany  
Website: <http://www.moevenpick-hotels.com>

## ABOUT MÜNSTER

Münster, the “capital” of the Münsterland region and Germany’s bicycle capital, is also a very liveable city with about 270,000 residents and about 48,000 students, which in turn creates a casual atmosphere.

Enjoy the historic city centre, the wide variety of museums, theatres, leisure activities, shopping facilities, and events, and the international as well as regional westphalian kitchen. The surrounding is characterized by moated castles, golf courses, riding stables, and an extended bicyclepath network. Field trips will lead you to interesting sites in the region.

Modern and historical architecture in Münster go hand in hand. One of the many architectural masterpieces is the Prinzipalmarkt. After the almost complete destruction during the Second World War it was rebuilt in line with the historical model again. Part of the Prinzipalmarkt is the landmark of the city, the historic town hall with the original “Hall of Peace,” where in 1643-1648 negotiations for the Peace of Westphalia took place, and on 15 May 1648 the Peace of Münster was signed. The Prinzipalmarkt is followed by one of the oldest market streets in Münster, the Roggenmarkt.

## GETTING AROUND

Münster is a small city and most places can be reached by foot. The Bus Station is next to the railway station and is the hub for city buses, as well as for regional, national and international coach lines.

### Taxis

There are taxi ranks at the railway station. You can also call for taxis on the reception of the Mövenpick Hotel or on the following numbers: Taxi Münster +49 (0)251 600 11

### Commercial opening times

The usual opening times for the majority of shops is from Monday to Sunday, 9.30 to 19.00 and large stores to 20.00.

### Opening times for banks

In general, banks and savings banks open from 8.30 to 16.00 from Monday to Friday.

### Useful telephones

Municipal Police: 110

Tourist Information: +49 (0)251 492 27 10

Mo-Fr 09:30-18:00 | Su 09:30-13:00

Münster Airport Information: +49 (0)2571 943360

Credit Cards:

Mastercard: 0800 819 1040 | Visa: 0800 811 8440

American Express: 0810 910 940

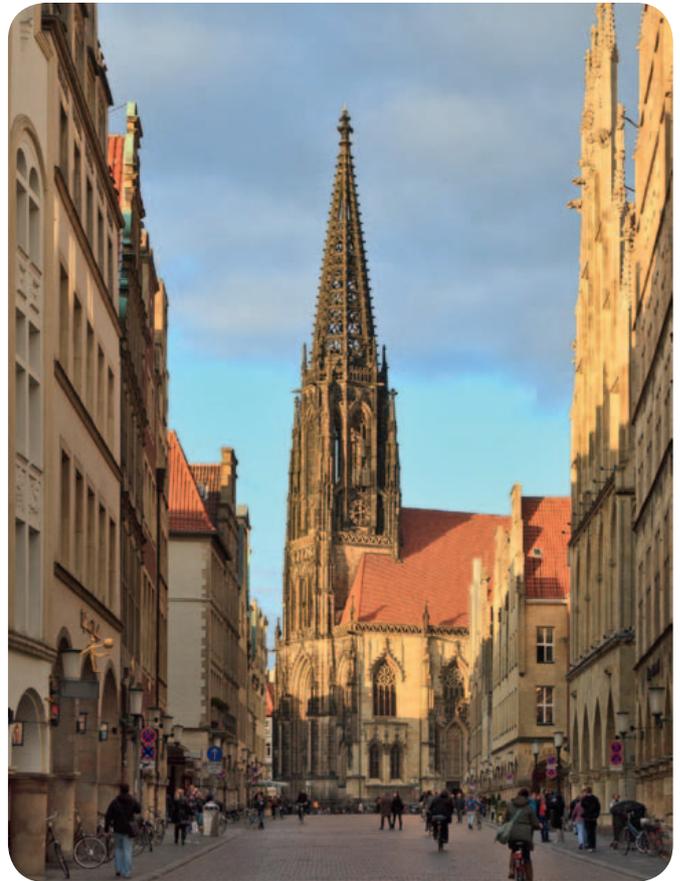


Foto: Bernhard Kijs

## CONFERENCE CHAIR

Prof. Dr. Elisabeth I. Meyer  
Department of Limnology  
Institute for Evolution and Biodiversity  
University of Münster  
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**INTERCOM**  
DIE VERANSTALTUNGSAGENTUR

## ON-SITE

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### Registration and Conference Office

The conference office is located in the foyer. Opening hours:

Sunday,	June 30, 2013	16:00–17:00
Monday,	July 1, 2013	7:00–19:00
Tuesday,	July 2, 2013	7:00–19:00
Wednesday,	July 3, 2013	7:00–10:00
Thursday,	July 4, 2013	7:00–19:00
Friday,	July 5, 2013	7:00–15:00

Phone: +49 (0)160 7440006 or +49 (0)160 7440016

Upon arrival, please register at the SEFS8 registration desk at the Mövenpick Hotel. Collect your conference documents and your name badge. You are requested to wear your name badge at all times.

### Catering services

There will be 2 coffee breaks and a small lunch per day, included in the registration fee.

### Internet Access

There is free wifi internet access at the meeting venue.

## ORAL PRESENTATIONS

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Speakers should provide their presentation file **on a USB memory/Flash drive**, according to the following model:

*Name\_session-slot, e.g. Smith\_R01-01.*

Please hand over **to the media desk – Pavillon IV – minimum 1 hour before** your presentation. For presentations in the morning session, please hand over the day before.

Presentations should be compatible **with Power Point or PDF**. Your presentation will be loaded onto the hard drive of the computer in the Lecture Room before your session and will be removed afterwards.

A projector and laptop will be provided for presentation. It is not possible to use your own computer.

### Instructions for Oral Presenters

Talks will be scheduled in 15-minute time slots. We strongly encourage a presentation of no more than 12 minutes to allow 3 minutes for discussion and questions from the audience. The time limit will be strictly enforced to facilitate movement between sessions.

## POSTER PRESENTATIONS

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The poster boards are located in the Foyer. The dimensions of the numbered poster boards are 190 cm height x 108 cm width. (6 feet tall by 3,5 feet wide). Portrait formatted posters in DIN A0 size (118.9 cm x 84.1 cm) are recommended. Posters have to be printed on paper and will be present over the whole symposium week.

Posters may be set up 1 hour latest, before the start of the first session. Poster presenters or co-authors who fail to show up at their scheduled presentations without previously notifying the organiser/programme planner of cancellation will be excluded from the poster prize award.

### Poster Sessions

All poster presenters are called to present their contribution in a 1-minute poster fast-forward presentation. Please arrive punctually to your session. There will be two posters sessions each at 17:30-18:30:

- **Tuesday, July 2, 2013**  
sessions: R01, R02, R03, R06, R07, R08, R10, SS01, SS02, SS04, SS06, SS07, SS08, SS09, SS10, SS12, SS14
- **Thursday, July 4, 2013**  
sessions: R04, R05, R09, R11, R12, R13, R14, SS03, SS13

Posters not removed by Friday, July 5, 2013, 15:00 will be discarded by the organizers. For posters that are not removed we assume no liability. In case that a poster cannot be mounted or removed by one of the authors at the designated time, the authors should contact the organizers in good time to make an alternative appointment.

## EFFS AWARD WINNERS

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The organizers are proud to announce the successful applicants for the first EFFS Award for the best PhD Dissertation in Freshwater Sciences (2010–2012).

An international jury, composed of five members of the International Representatives of EFFS, have evaluated the pre-selected dissertations, which had been transmitted by the National Societies. Three candidates have been selected for the prizes.

Main prize and winner of the EFFS Award for the best PhD Dissertation in Freshwater Sciences:

**Dr. Diego Tonolla**

Federal Office for the Environment (FOEN), Water Division, Bern, Switzerland

for the doctoral thesis entitled “Acoustic and thermal characterization of river landscapes”.

The two subsidiary prizes go to:

**Dr. Sami Domisch**

Biodiversity and Climate Research Centre (BiK-F) Frankfurt and Senckenberg  
Research Institute and Natural History Museum Gelnhausen

for the doctoral thesis entitled “Species distribution modeling of stream macroinvertebrates under climate change scenarios”

and to

**David X. Soto, Ph.D.**

University of New Brunswick, Fredericton

for the doctoral thesis entitled “Combining trace metal bioaccumulation and stable isotopes to reveal food web structure in freshwater ecosystems”

The prizes will be surrendered at the beginning of the conference in an award ceremony, scheduled for Monday, 1 July. Subsequently, the prize winner will give a dedicated plenary lecture.

Additionally, the winning theses will be exhibited during the symposium at the booth of the association of European Fresh and Young Researchers (EFYR).

**Congratulations!**

## SOCIAL EVENTS

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**Welcome Reception**

All participants are invited to attend the Welcome Reception on **Sunday, June 30, 2013 at 18:00–20:00**.

Venue: A2 am Aasee | Annette-Allee 3 | 48149 Münster

The restaurant “A2” is located directly on the biggest lake of Münster, “the Aasee” and invites you to enjoy the whole panorama of the lake. Price: included (financed through reg. fee) | online pre-registration is mandatory.

**Conference Dinner** at Mühlenhof-Freilichtmuseum Münster – A very unique place to be

**Thursday, July 4, 2013 | 20:00 – 23:00**

Venue: Mühlenhof Freilichtmuseum | Theo-Breider-Weg 1 | 48149 Münster

The open-air museum „Mühlenhof Münster“ displays on 5 hectares aspects of the farming and traditional culture of the region over 4 centuries. It was born out of the idea to create a monument for the peasant and artisan culture. About 30 historical buildings were transferred from their original location to the Museum and reconstructed based on traditional models. The interiors with its historical collection are giving a good impression of life habits and practices of the people who used to live here.

Tickets: 60,00 € per Person incl. food, drinks and guided tours onsite | online pre-registration is mandatory.

## STUDENT ACTIVITIES

**Pre-Conference-Workshops for Students**

The Symposium for Freshwater Sciences 2013 features pre-conference-workshops especially for students. These courses will take place in:

**Venue:** University of Münster | Institute for Evolution and Biodiversity | Hüfferstraße 1, 48149 Münster (Germany)  
**How to find** 

**Workshop 1: From ecosystems to genes: hands on bioinformatics of metagenomics data**

*Lecturer: Prof. Dr. Claudia Acquisti; Robert Fuerst; Parijat Tripathi, Münster*

**time: Sunday, June 30, 2013 | 09:30 – 17:30 | pre-registration necessary**

price: 35 € per person, incl. material and light refreshment

Recent advances in metagenomics have a tremendous potential to broaden our understanding of the genetic basis of ecosystem processes. This emerging technology provides a major arena to get a quantitative understanding of natural microbial communities in natural environments, without any aprioristic assumption on its community composition, and including all types of unculturable bacteria. However, the analysis of the data is rather challenging.

The workshop will introduce to fundamental aspects of metagenomics, and will offer the participants the opportunity to analyze publicly available datasets with a series of bioinformatics tools. Key foci of the workshop will be phylogenetic and functional analyses of the data.

**Workshop 2: A Brief Primer of Studying Chironomids (Diptera, Chironomidae)-Tackling Freshwater Biodiversity**

*Lecturer: Dr. H. Wolfgang Riss, Münster*

**time: Sunday, June 30, 2013 | 09:30 – 17:30 | pre-registration necessary**

price: 35 € per person, incl. material and light refreshment

Biodiversity of freshwater systems reveals local maxima in benthic transition zones. There, the dense interweaving of physical structures and environmental factors generate a great variety of microniches, and hence conditions for the coexistence of many taxonomic and trophic species. The chironomids are that cosmopolitan dipteran family which makes up a dominant portion of freshwater benthic diversity, and specifically within these transition zones. Decades ago, the practical use of chironomids in ecological studies was critically disputed as being too laborious. Nowadays, as biodiversity studies have extended reach through implication of modern methods, the chironomid family is regaining attention as an important 'information carrier' of ecosystems at different spatial and temporal scales. DNA-based identification methods, such as DNA barcoding, are considered valuable tools to increase accuracy, objectivity, and comparability of taxonomic assessments in biodiversity studies. Novel and powerful criteria of taxonomic classification, however, do not entirely facilitate the problem of linking taxonomic to ecological traits, as for trophic webs, community associations, species valences, etc. and vice versa. Herein, smart combination of techniques, i.e., sampling and identification on the one hand and molecular and genetic methods on the other, undoubtedly points out the most powerful strategy. The workshop targets basic methods for a straight and firm access to chironomid work: representative stochastic sampling, rapid mounting, generic identification of larvae, and managing of abundance data. The knowledge and skills imparted in this course shall serve as a versatile primer for a practical and taxonomic approach to a significant and fascinating freshwater life form.

**Discussion Forum on „Ethics in Science“**

*Prof. Luigi Naselli-Flores, Department of Environmental Biology and Biodiversity, University of Palermo, ITA*

*Prof. Judit Padisák, Department of Limnology, University of Veszprém, HUN*

**time: Monday, July 1, 2013 | 18:00 – 20:00 | at Mövenpick Hotel Münster (Pavillon III)**

The discussion on ethics in science within the SEFS conference will include:

- Use of data
- Use of others thoughts either by content or word-by-word
- Citation rules
- Co-authorship
- Parallel submissions
- Respect of others' time
- Respect of reviewers' work
- Respect of authors' work
- Proper acknowledgement of funding Institutions

**EFYR Meeting**

**time: Thursday, July 4, 2013 | 18:30 – 19:30 | at Mövenpick Hotel Münster (Pavillon I)**

**Feeling a young researcher? Come on Thursday to the EFYR meeting and participate in our discussions!**

## TECHNICAL EXCURSIONS

**Technical Excursions will take place on Wednesday, July 3, 2013.**

Busses leave in front of the Mövenpick Hotel at the indicated time.

### Full-day excursions

#### 1. THE RESTORATION OF THE RIVER EMSCHER SYSTEM – Europes largest river restoration project as an example for far-reaching structural change in the megalopolis Ruhrgebiet

*Dr. Mario M. Sommerhäuser, Secretary of the German Limnological Society and Emschergenossenschaft/ Lippeverband, Essen*

The restoration of the Emscher system in the densely populated area of the Ruhrgebiet is probably the largest European project on ecological improvement of surface waters, at least in terms of time and investment. A system of open waste water sewers with a total length of more than 400 kilometers will be restored in order to develop a near-natural lowland river system again. The project with a total investment of 4,5 billion Euros (4,5 Mrd. Euro) includes the construction of four large waste-water treatment plants, a modern system of subterranean waste-water channels, and 340 kilometers of new rivers and streams with an adjacent floodplain wherever possible. It is more than a river renaturation project:

The Emscher restoration provides the base for a structural change of the whole conurbation Ruhrgebiet, including new spaces of leisure and recreation, an improvement of the value of the real estate and also the quality of life in general. The so-called generation project “Emscher-Umbau” will be finished in 2020 after 30 years of investment and construction.

The excursion will lead to several sites of interest like the recently built large Lake Phoenix – a former industrial plant which became a place of sports, leisure, recreation and new housing–, one of the impressing building areas where the large waste-water channel for the Emscher itself is under construction, and a restored river site.

**Excursion time: about 6 hours, sites will probably be visited in Dortmund, Bochum, Castrop-Rauxel. Demonstration at site by experts from Emschergenossenschaft.**

#### Schedule:

Start at Hotel Mövenpick (Conference venue)	08:30
Lunch break (excl. drinks)	13:00
Departure back to Münster	15:00 approx
Note	outdoor clothing appropriate to the weather conditions
Price per person	35 €

#### 2. FLOODPLAIN UNDER LIFE: LOWLAND RIVERS EMS AND LIPPE – CHARACTERISTICS, SIMILARITIES AND DISTINCTIONS

*LIFE+/District Government of Münster (Ems), Stadt Hamm (Lippe) – Environmental Agency*

In terms of running water typology the rivers Ems and Lippe belong to the “mid-sized and large sand and loam-dominated lowland rivers of the central plains typical for the Northwestern and Northeastern European rivers and streams, which have been influenced by alluvial deposits from the pleistocene. Due to anthropogenic activities over the last several hundred years they have been heavily modified, straightened and “tamed”. The excursion leads to the floodplains of the rivers Lippe and Ems. Supported by the European conservation and restoration programme LIFE+, degraded sections of both rivers have been extensively remodelled in the past years to initiate free developing towards a near natural state with management practices still ongoing. Measures at the Ems focus on constructing secondary initial channels, which will subsequently lead to selfdynamic lateral morphodynamic processes. The Lippe’s floodplain on the other hand has been, and still is, more actively shaped by humans. Thereafter, the river is left to selfdynamics thus providing valuable habitats for the typical flora and fauna. You gain insight into various measures, experiences, and success of river restoration in the lowlands.

#### 1<sup>st</sup> stop – River Ems (“Einen”)

River Ems is the smallest of Germany’s large rivers (Rhine, Elbe, Oder, Danube), and like these was subject to engineering “improvements”. Particularly in the 1930s, large sections of this meandering lowland river were straightened, leading to degradation of the riverbed. Currently, the District Government of Münster, responsible authority for River Ems’ maintenance, is striving to reverse these changings to a near-natural state. Within the framework of the LIFE+ project “Ems - Dynamik + Habitate”, the course of the river was lengthened and widened along a section of about 4 kilometres near Einen (Warendorf). Measures leading to selfdynamic morphodynamic processes are the major objectives. Further goals: removing the stony river bank stabilisation structures and thereby facilitating natural river erosion and sediment dynamics, strengthening existing and developing new floodplain areas as well as creating uninterrupted passages for fauna. Once the restoration measures are completed, the Water Frame Directive will be successfully. You will experience different development stages of the measures that have been implemented over the past three years. It will be shown that sedimentation and erosion create a small- scale mosaic of various habitats within the recently converted sections. The difference is particularly obvious when comparing those parts where the measures have been completed in 2009 to those that were newly done.

## 2<sup>nd</sup> stop – River Lippe (“Hamm”)

In connection with two projects “LIFE Lippeaue“ (2005-2010 and 2010-2015), you are invited to experience the Lippe flood plain and the measures that have been undertaken so far to restore the natural state. Various actions took and take place in nine separate section-blocks. Goal is to reconnect the river with its floodplain. Various initial measures were implemented, and “Mother Nature” will help with the rest.

The project “LIFE+ Lippeaue” is an intermunicipal project and extends over the borders of the city of Hamm as well as over neighbouring districts (Warendorf and Soest). Five project partners build a joint cooperation in order to guarantee a successful accomplishment of the project. The Life Project has brought about a lot of changes in the Lippe floodplain: now there are sections of natural banks without rock reinforcement, flood channel systems, various-sized standing water bodies, extensively managed wet grassland and young alluvial woodlands. Obstacles preventing upstream and downstream dispersal have been removed. All measures together have provided the preconditions for a natural development with re-establishment of typical animal and plant communities. Attractive trails and observation towers enable visitors to see how the protected areas are developing.

### Schedule:

Start at Hotel Mövenpick (Conference venue)	08:00
1 <sup>st</sup> stop - River Ems (“Einen”)	08:45–11:30
Transfer to Hamm	11:30–12:30
Lunch (excl. drinks) break in Hamm (Castle Obewerries)	12:30–13:30
2 <sup>nd</sup> stop –River Lippe (“Hamm”)	13:30–16:00
Arrival in Münster, Hotel Mövenpick	17:00 approx
Note	Transfer by bus. Both sites will be explored on foot. outdoor clothing appropriate to the weather conditions (sturdy footwear, raincoat/umbrella – if necessary)
Price per person	42 €

## 3. STREAMS AND FLOODPLAINS IN A MOUNTAIN REGION: ARNSBERG FOREST/ MÖHNE FLOODPLAIN

*LIFE+/District Government of Arnsberg, ABU Soest/Kreis Soest*

The excursion leads to mountain streams in the River Möhne valley and Arnsberg Forest, which have been restored within the framework of two LIFE+ projects.

### 1<sup>st</sup> stop – River Möhne

With a total length of 65 km the River Möhne is one of the largest tributaries of the River Ruhr. It originates close to the city of Brilon in the upper Sauerland area, flows through a valley characterized by meadows, pastures and forest, and downstream of a large dam (“Möhne-Talsperre”) reaches its confluence with the River Ruhr near the city of Neheim. The Möhne floodplain has a high importance for the protection and preservation of endangered animal and plant species (e.g. black stork *Ciconia nigra*, the lesser marbled fritillary *Brenthis ino* and bogbean *Menyanthes trifoliata*). In the past the River Möhne has been modified throughout its entire length. Straightening and altering the course to the valley margins led to a dewatering of the floodplain, yet improved the cultivation of the adjacent plains. Dams enabled running of mills, stony bank protections fixed the river in its bed. These management practices had far-reaching negative effects for the biodiversity in the river and its floodplain. Dams interrupt the river continuum and prevent upstream migration and the access of spawning grounds in the headwaters for salmonid fish. Bank reinforcement disables the natural flow dynamic. Steep bank erosion, which is crucial for kingfisher, gravel bars where brook lampreys spawn, and species-rich floodplain meadows and forests became scarce. At five different sites of altogether 200 ha, restoration activities have been undertaken, and are still ongoing, under the lead management of the county of Soest. The implemented measures include the lengthening of the water course, soil accumulation, the laying out of threatening flood hollows, providing structural elements such as large wood, re-establishment of the lateral and longitudinal connectivity of the river, rehydration of the land to optimize the growth conditions for typical plants, removal of spruce, and more. Under the LIFE project special attention was laid to the Möhne-meadows, where particularly species-rich grassland was developed.

### 2<sup>nd</sup> stop - Streams and their valleys in the Arnsberg Forest

The Arnsberg Forest is one of the largest contiguous areas of forest in North Rhine-Westphalia. It is situated at the northern edge of the Sauerland area, in the South of the River Möhne. This LIFE project aims to preserve and develop the mountain streams, alluvial forests and marshes of the Arnsberg Forest together with their typical flora and fauna. Black alder (*Alnus glutinosa*), brown trout (*Salmo trutta*) and bullhead (*Cottus gobio*), kingfisher (*Alcedo atthis*) and black stork (*Ciconia nigra*), golden-ringed dragonfly (*Cordulegaster boltonii*) and keeled skimmer (*Orthetrum coerulescens*) are just a few of the more remarkable representatives. In many areas the length of stream courses has been halved by channelization, with serious consequences: the stream cuts a deeper bed, the stream communities are affected, the alluvial surroundings fall dry. Approximately 30 km of stream courses and alluvial forest are to be restored and the development of typical alluvial forest vegetation is to be initiated. Goals to be achieved are: Recreation of the natural course, development of a near-natural, shallow stream profile, closure of drainage ditches, placement of large wood, and elimination of obstacles to meandering. Yet, the central focus in the river valleys of the Arnsberger Forest is in the restoration of near-natural deciduous forests. Alder alluvial forests that are exposed to light will replace the dark, monotonous spruce woodland which currently dominates alluvial landscapes in a large portion of the project area. Creation of a near-natural water balance regime in the restored stream courses will promote the development of a natural, diverse mosaic of vegetation. At this excursion you will visit representative mountain streams, see the restoration measures and get an impression of the development of the area.

**Schedule:**

Start at Hotel Mövenpick (Conference venue)	08:00
1 <sup>st</sup> stop-River Möhne	09:30–12:00
Transfer to Neuhaus	12:00–12:30
Lunch (excl. drinks) break in Neuhaus	12:30–13:30
2 <sup>nd</sup> stop-Arnberg Forest	13:30–16:00
Arrival in Münster	17:00 approx
Note	Transfer by bus. Both sites will be explored on foot. outdoor clothing appropriate to the weather conditions (sturdy footwear, raincoat/umbrella – if necessary)
Price per person	42 €

**4. SPRINGS IN THE MÜNSTERLAND - MARGINAL AND CENTRAL SPRINGS OF A CRETACEOUS BASIN**

*Dr. Patricia Göbel, Institute of Geology and Palaeontology and Dr. Alexander Meyer, Institute for Evolution and Biodiversity, University of Münster*

Goal of this excursion is an overview into specific hydrogeological and ecological characteristics of a landscape unique in Germany. Two different regions are visited in the course of this excursion, the „Paderborn Plateau“ in the Eastern Münsterland area and the „Baumberge“ situated in the central Münsterland area.

„Paderborn Plateau“ is a karst terrain of 350 km<sup>2</sup>. It is built up of well-jointed limestone and marly limestone of the Upper Cretaceous. Typical karst features are sinkholes, dolines, caves, dry valleys and several karst springs. As soon as streams enter the karstic limestone of the Plateau, their water sinks into the numerous sinkholes within the stream bed. The water flows through well connected enlarged joints of the karstic rocks reappears after 1-3 days in several karstic springs (Pader springs). The karst streams of the Paderborner Plateau are characterized by their spatial and seasonal variability of streamflow and stream drying.

The Baumberge region is a hilly landscape to the west of the flat Münsterland area rising to a height of 185 m a.s.l. and thus constituting the highest elevation in the central part of this area. The hills act as a morphological barrier for precipitation and the Baumberge region is characterized by a comparatively high precipitation rate of 800 - 920 mm/a. The strata of the Baumberge in narrower sense consist of relatively impermeable, clayey chalk and marly clay.

These strata are overlain by permeable, jointed limy sandstone. The formation generates a geological depression which is filled with groundwater. Numerous springs drain the depression by acting as an overflow at the loess-covered slopes.

The Baumberge might represent a closed hydrogeological system, a so-called “natural lysimeter”. Spring water is drained into the receiving streams, the Rhine River, Ems River, Ijssel River and Vechte River. Therefore the Baumberge system forms a “hydrographical node”.

**Schedule:**

Start at Hotel Mövenpick (Conference venue)	08:00
sinkholes and ponors on the Paderborn plateau (eastern margin of the Münsterland area)	10:00–11:00
Spring „Storchenkolk“ in Borchen (beautiful kolk)	11:00–11:30
Lunch (excl. drinks) at the 1,700 years old monastery „Kloster Dahlheim“	11:30–13:00 approx
Spring alluvial cone in Niederntudorf	13:15–13:30
Visits of springs in Paderborn (Pader springs are the fourth biggest spring in Germany; River Pader is the shortest river in Germany; single springs are scattered all over the inner old imperial city)	14:00–15:00
Spa garden and brine concentration house in Bad Westernkotten (southern margin of Münsterland area)	15:30–16:00
Central springs in the Baumberge region (central Münsterland area)	17:30–18:00
Departure back to Münster	18:30
Note	Outdoor clothing appropriate to the weather conditions
Price per person	50 €

**Half-day excursion****5. WATER FOWL AND WATER MANAGEMENT IN THE SEWAGE FARM AT MÜNSTER**

*Prof. Dr. Hermann Mattes, University of Münster – Institute of Landscape Ecology*

The sewage farm („Rieselfelder“) in the North of Münster was created in the beginning of the last century and has now become a natural reserve for waterfowl. The area is divided into a completely protected part and a recreation area. Both fit very well together and offer an excellent possibility to observe birds.

During the excursion we will discuss the synthesis of recreation and nature protection, inform about the changeful history of the area, explain the water management, and have a look at water fowl.

In the sewage farm we will enter the observation tower, go for a one hour walk, and will surround the region by bus. Please think of clothing fit for the weather.

**Schedule:**

Start at Hotel Mövenpick (Conference venue)	08:30
Transfer by bus	
One hour walk	
Departure back to Münster	12:00–13:00 approx
Note	outdoor clothing appropriate to the weather conditions
Price per person	20 €

## WE THANK FOR THE PARTICIPATION

bbe Moldaenke GmbH		Foyer
DGL Deutsche Gesellschaft für Limnologie e.V.		Lobby
E. Schweizerbart'sche Verlagsbuchhandlung/ Gebr. Borntraeger		Foyer
Heinz Walz GmbH		Foyer
HYDRO-BIOS Apparatebau GmbH		Foyer
The Freshwater Biological Association		Lobby
ILEC_WLC15		Lobby
Sea & Sun Technology GmbH		Foyer
Wiley, c/o Wiley-VCH Verlag GmbH & Co. KGaA		Foyer
WWU Münster		Lobby

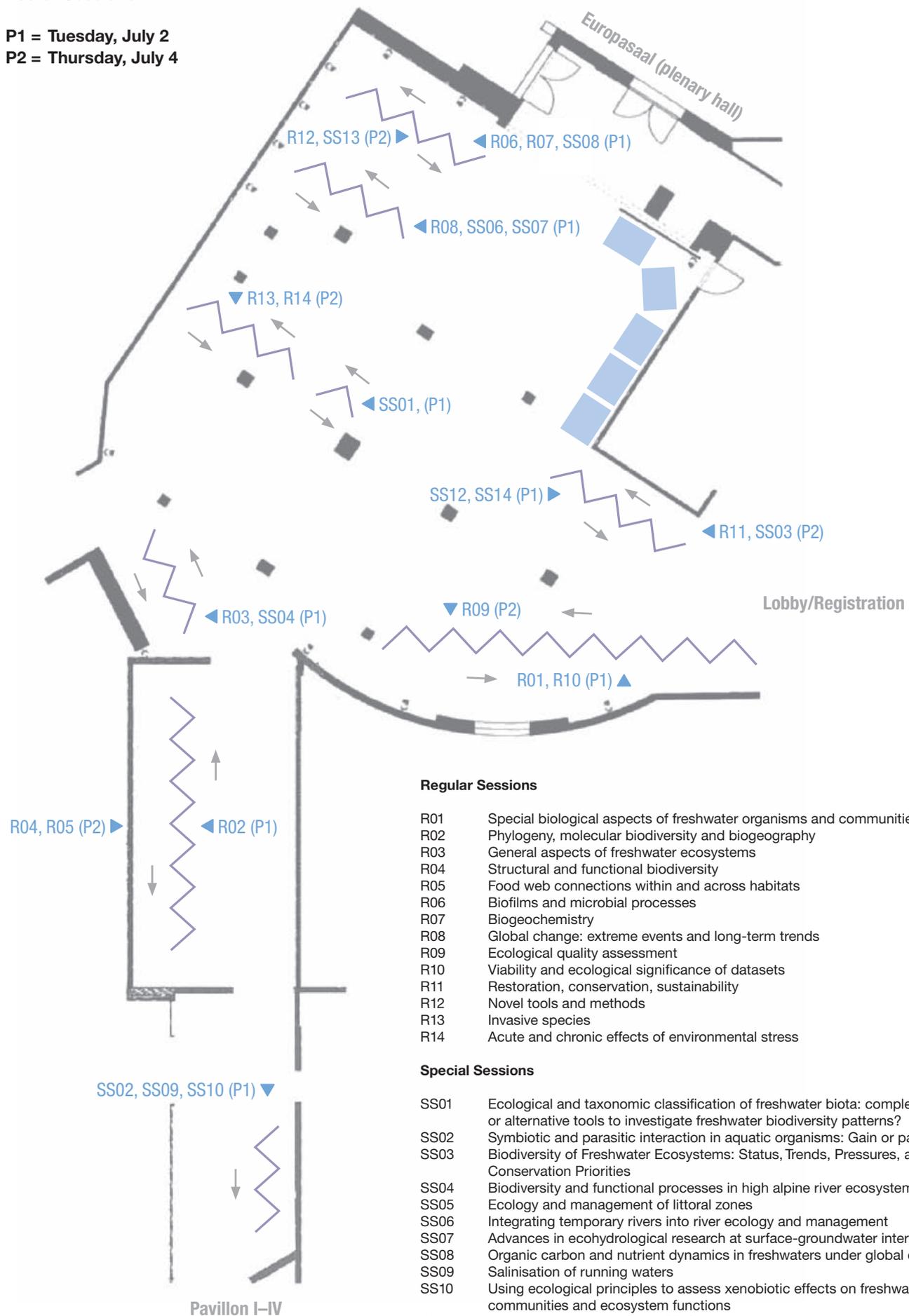
The exhibition will be open on Monday, Tuesday and Thursday from 09.00 – 18.00 and on Friday from 09.00 – 14.00. Attendees are encouraged to spend time visiting the booths and interacting with the exhibitors.



## Poster Sessions

P1 = Tuesday, July 2

P2 = Thursday, July 4



## PS1 | Plenary 1 | Time: 9:30 – 10:15

**Diego Tonolla** (Winner of the 1<sup>st</sup> EFFS Award for the best PhD Dissertation in Freshwater Sciences) – Federal Office for the Environment (FOEN), Water Division, Bern, Switzerland

**Presentation:** “Real-time acoustic and thermal characterization of river landscapes”

**Presented by:** L. Naselli-Flores

**Abstract:** The study of rivers and their heterogeneity at spatial scales at which relevant hydromorphological and ecological processes occur is crucial for advancing our understanding of river-ecosystems and for establishing adequate conservation strategies. Here we applied innovative acoustic and thermal tools as they apply to the real-time ecological study of river landscapes through a multidisciplinary research approach that blends purely physical studies of acoustic and thermal landscape patterns with the potential ecological outcomes. These tools provided a new set of “eyes” and “ears” through which we obtained useful insights into the fundamental natural and anthropogenic drivers that shape Alpine and lowland river-ecosystems. Our studies clearly showed, that underwater sound is a complex and robust signal, and hence, should be considered as an important and unique property of riverine ecosystems. The underwater soundscape provides an independent measure across a spatially continuous representation of habitat organization because it reflects important hydraulic (i.e., turbulence levels) and geomorphic (i.e., bedload mobility) dynamics. Soundscape analysis could be used to monitor river restoration measures that change the flow field and subsequent streambed sediment transport-deposition processes. Moreover, acoustic signals from particle collisions could be used to measure the intensity of bedload transport and distinguish size fraction transport based on frequency band intensity. Finally, underwater acoustic signals are most likely an important information cue for aquatic organisms for spatial orientation and positioning within suitable habitats. The application of thermal-infrared (TIR) imagery provides a unique opportunity to simultaneously map and quantify the surface temperature of aquatic and terrestrial habitats at a spatial scale relevant to ecosystem processes and biota distribution. This technique added critical information on broad spatial scales and allowed the detection and quantification of complex thermal mosaics that varied considerably over a 24-hour period, and between mean and high flow conditions. Moreover, a delay in response of fish distribution to a strong thermal gradient recorded in spring could only be assessed by the use of TIR imagery. TIR imagery could be used to identify area of groundwater-surface water interactions and to better understand the effect of thermal pollution zones such as water abstraction and industrial water discharge as well as of river regulation (e.g., groyne fields) on the thermal regimes of rivers. Finally, the TIR information gained is also expected to be crucial for quantifying and interpreting the effects of thermal heterogeneity on key ecosystem processes (e.g., organic matter decomposition and sediment respiration) as well as on diversity and behavior of organisms.

**Biography:** Dr. Diego Tonolla holds a Master of Science degree in Environmental Sciences from the Swiss Federal Institute of Technology (ETH) and in 2011 completed his PhD at the Freie Universität (FU) Berlin earning Summa Cum Laude for his dissertation, resulting in 5 publications in top rated ecology journals such as *Ecosystems*, *Limnology & Oceanography*, and *Remote Sensing of Environment*. Moreover, he did a substantial work for a comprehensive book on European Rivers (*Rivers of Europe*, 2009, Elsevier). Between 2005 and 2011 he was employed as a scientific research assistant in the Department of Aquatic Ecology at the Swiss Federal Institute of Aquatic Science and Technology and in the Department of Shallow Lakes and Lowland Rivers of the Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB) in Berlin. In addition, between 2007 and 2012 he participated in several international collaborative research endeavors with scientists from The University of Montana, Flathead Lake Biological Station (FLBS), USA and the United States Geological Survey helping expand investigation into the link between hydro-acoustics, flow hydraulics and sediment transport in gravel-bed rivers. His research with thermal infrared imagery for the quantification of spatiotemporal thermal heterogeneity at the floodplain scale and his collaborative effort led Diego to be recognized with an award for the best poster presentation by the International Society for River Science at their 2009 annual conference and a 2012 Schwoerbel-Benndorf „Young Talent Prize“ for outstanding publication from the German Limnological Society. Diego currently is employed as a scientific assistant with the Water Division of the Swiss Federal Office for the Environment (FOEN) where he is project- leader for a Swiss-program focused on mitigating negative ecological impacts associated with hydropower generation. Furthermore, he is completing a Certificate of Advanced Studies in River Restoration and continues collaborative scientific engagement with researchers from both the IGB and FLBS. He has developed expertise and interdisciplinary research interests in the field of ecosystem ecology, hydromorphology-ecology linkages, remote sensing (e.g., infrared thermography, hydrophones, acoustic doppler profiler, unmanned aerial systems, etc.) for application in real-time freshwater research, as well as effective management of hydropeaking and river restoration projects.

## PS2 | Plenary 2 | Time: 10:15 – 11:00

**Robert W. Sterner and James M. Hood** – Department of Ecology, Evolution and Behavior, University of Minnesota, St. Paul, USA

**Presentation:** “Ecological Stoichiometry: Spatial Aspects at Small and Large Scale”

**Presented by:** M.O. Gessner

**Abstract:** Ecological stoichiometry (ES) is concerned with the balance of multiple chemical elements in ecological interactions. It has grown into a robust field of research with strong theoretical underpinnings. Many of what one may call the core principles of ES (e.g. element limitation of growth, the Growth Rate Hypothesis, balancing of N and P at the ecosystem scale) were developed in aquatic systems but have been extended and modified to fit other environments. ES has been used to address a wide variety of research questions across many levels of organization in biology from the gene to the globe. To date, however, most of these core principles are essentially zero-dimensional theories in that spatial variance has not been explicit. As is true elsewhere in ecology, spatial and temporal variability in element ratios exists and it can play a major role in ES. How do we incorporate spatial and temporal variability into ES? What traits do we use to scale organismal activities across patches? How does variation among patches scale to affect the elemental balance of ecosystems?

This talk will explore stoichiometric approaches to understanding spatial and temporal variation in biogeochemistry and in consumer-resource interactions, two very different spatial scales. At the small scale, we ask how organismal level patterns in homeostasis (maintaining relatively constant chemical content in the face of environmental variation) affects production dynamics of zooplankton consumers that inhabit a stoichiometrically variable world. For example, vertically migrating animals may encounter stoichiometrically distinct layers of water. Patterns of growth relative to nutrient acquisition are key in understanding these dynamics. It is a story of how environmental variability is integrated at the scale of the individual, combining information about movement with information about homeostasis. This work seems to offer fresh insight into the spatial ecology of organism growth generally. At the larger scale, we ask how patterns of variability in biogeochemical properties of interconnected lakes affects large-scale nutrient balancing in the sense of Redfield. Over the long term, does the N cycle come into balance with the P cycle by way of fixation and denitrification? This work emphasizes the fundamental importance of spatial structure and the patterns of connections across patches. It is a story of how environmental variability is integrated at the scale of ecosystems and offers insight into the questions about N vs. P limitation in aquatic environments.

**Biography I:** Bob Sterner received his PhD in Ecology from the University of Minnesota-Twin Cities, working with David Tilman on the topic of direct and indirect interactions in *Daphnia*, algae and nutrients. He worked as a postdoctoral associate with Drs. Ullrich Sommer and Winfried Lampert at the Max Planck Institute fuer Limnology, Ploen, Germany. He has been a faculty member at the University of Texas at Arlington and his current institution, the University of Minnesota – Twin Cities. He has also worked for a time as Director of the Division of Environmental Biology at the U.S. National Science Foundation. His research has mainly dealt with topics in Ecological Stoichiometry and in recent years has included studies of the biological and chemical limnology of Lake Superior

**Biography II:** Jim Hood received his Ph.D. in Ecology from the University of Minnesota-Twin Cities, working for both Bob Sterner and Jacques Finlay. He is currently working as a postdoctoral associate for Wyatt Cross at Montana State University. His research focuses on the interactions between nutrients, organisms, and ecosystem processes in freshwater. He is particularly interested in understanding how these interactions are influenced by warming and nutrient enrichment.

## PS3 | Plenary 3 | Time: 8:30 – 9:15

**Simona Bacchereti and Carlos de la Paz** – LIFE Programme Communications Team, Brussels, Belgium

**Presentation:** “The LIFE Programme: more than 20 years improving freshwater ecosystems in Europe”

**Presented by:** O. Schmidt-Formann

**Abstract:** The LIFE Programme has been the European Union’s funding instrument for the environment since its approval in 1992. It is composed of three strands (LIFE Nature and Biodiversity, LIFE Environment Policy and Governance and LIFE Information and Communication). Since its establishment 21 years ago, LIFE has co-financed nearly 4 000 projects, providing some €2.8 billion, and mobilising a further €3.8 billion in other public and private contributions. This continuous source of targeted financing has radically changed the capacity of many countries and regions to care for the EU’s environment. Of the nearly 4 000 projects co-financed by the LIFE Programme since 1992, more than 900 have concerned water issues and ecosystems.

LIFE projects have been especially strong in delivering results on water quality and quantity targets and in monitoring and improving the conservation status of freshwater habitats. They have provided integrated approaches that have helped water authorities to adopt good water management solutions aimed at meeting the requirements of the Water Framework Directive (WFD). LIFE has contributed, in particular, to the implementation of river basin management plans (RBMPs) through the integration of data capture, modelling and management techniques. One of the strengths of the LIFE Programme is that it has funded many projects that have developed solutions tailored to the differing needs of the Member States in terms of water scarcity, quality, quantity and efficiency, offering targeted solutions at a local level. LIFE has co-financed a large number of river and wetland restoration projects. Water projects have favoured the increase of biodiversity and the conservation of threatened species and provided support for the enlargement of the Natura 2000 network.

LIFE funding has provided excellent examples of stakeholder involvement that have helped in reconciling the contrasting economic interests that place stress on our water bodies and in promoting cooperation for effective policy implementation. This communication will give a general overview of the LIFE Programme and of its support for practical ways improving and managing freshwater ecosystems in Europe.

**Biography I:** Of Italian nationality, Simona Bacchereti holds a Masters degree in Biology, as well as a higher-level postgraduate degree (Master di II livello) in ‘Animal Biodiversity Preservation: Protected Areas and Ecological Networks’. A former LIFE Programme Manager in the European Commission’s Directorate General for the Environment (DG ENV), she now works as Nature & Biodiversity expert for AEIDL, a Brussels-based member of the Astrale consortium that is contracted by the European Commission to deliver communication activities on behalf of the LIFE Programme.

**Biography II:** Carlos de la Paz is Environment Expert in the LIFE Communications Team. Since 2009 he has been working exclusively on sustainable development and environmental issues: first at the Representation Office of Andalusia in Brussels and then as Policy Officer at FARNET, the Support Unit of the European Commission (DG MARE) that assists in the implementation of the Axis 4 of the European Fisheries Fund (sustainable development of European fisheries areas). Mr. de la Paz has two degrees - in Law and Political Sciences & Public Administration - and is currently studying for a third one in Environmental Sciences.

## PS4 | Plenary 4 | Time: 9:15 – 10:00

**Judit Padisák** – Department of Limnology, University of Veszprém, Hungary

**Presentation:** “From species level indication to functional group level”

**Presented by:** E. van Donk

**Abstract:** Use of biota to indicate “something” that is important for human life is probably as old as our culture and it covers intuitively much more than simple species level indication. The first scientific approach to describe consequent co-occurrence of species can be traced in terrestrial plant ecology (formations, associations, sub-associations) and resulted in the development of the Braun-Blanquet systematic. This approach has been still used in modern biology and practice. Due to their mobility, no similar approach was developed for animals and other aquatic biota. Water use and the consequent pollution have dramatically increased by urbanization and industrial development leading to deterioration of water quality especially by increased organic pollution. However, need for biotic indicators arose only in the early 20th century when species-based saprobic indicator system was developed. The developed index successfully integrates dominance level and indicator values. Eutrophication became evident in the middle of the 20th century and, subsequently, a number of trophic scales were developed mostly using bulk-variables like total P, chlorophyll-a or Secchi-transparency. The need and practice of use of functional groups as indicators of habitat properties developed only in the late 20th century and has been recently the most successful approach both in basic and applied science. So far, feeding groups of aquatic macroinvertebrates has been most widely used approach. Importance of phytoplankton in energy and matter transport of aquatic ecosystems has never been questioned and nearly all the above historical steps can be traced in back in early literature (Braun-Blanquet description, saprobic indicator species, eutrophic indicator species, indices based on occurrence or proportion of different taxonomic groups, trophic state indication on chlorophyll- or Secchi-level). Since general indicator criteria that are widely used in conservation biology can hardly handle phytoplankton, functional groups are of distinguished importance. Not surprisingly: three different types of grouping have been developed quite recently. The lecture will provide a general overview on these three approaches discussing their potential strengths and weaknesses.

**Biography:** Prof. Dr. Judit Padisák graduated at the Eötvös Loránd University of Budapest (1974) as biologist. Currently she is acting as Professor of Limnology, head of the Department of Limnology, University of Pannonia, Veszprém, Hungary; associate editor of *Hydrobiologia* and Editorial Board member of the *European Journal of Phycology* and *Freshwater Reviews*; executive vice president of SIL. Her primary research topic is phytoplankton community ecology with focus on diversity-disturbance relationship and equilibrium conditions/properties of phytoplankton assemblages. Field experience extends to limnology and phytoplankton ecology of deep and shallow lakes both in temperate and tropical regions. On the basis of thirty years of experience, her present research focuses on development and application of functional group concept.

## THURSDAY, JULY 4, 2013 | ROOM: EUROPASAAL

## PS5 | Plenary 5 | Time: 8:30 – 9:15

**Ulrich Brose** – Systemic Conservation Biology, J.F. Blumenbach Institute of Zoology and Anthropology, Georg-August-University Göttingen, Germany

**Presentation:** “Stability and extinctions in complex food webs”

**Presented by:** W. Mooij

**Abstract:** Recent evidence suggests that the global ecosystems are currently exposed to a wave of species’ extinctions. In this context, addressing the consequences of species extinctions for natural ecosystems has become one of the most urgent scientific questions. However, experimentally-induced extinctions in natural ecosystems are generally logistically limited, sometimes ethically questionable and generally restricted to short-term and small-scale designs. In contrast, model analyses of complex food webs offer a promising tool for understanding general signatures in extinction risks across specific ecosystems. Allometric trophic network models combine realistically parametrized or natural trophic structures (“who consumes whom”) with allometric scaling models of the population parameters. The latter includes empirically-derived relationships between population-averaged body masses and the physiological rates (respiration, production, maximum consumption) and interaction parameters (handling time, attack rates). Applications of these allometric trophic network models showed that (1) primary extinctions increase with the species’ trophic levels, (2) the risks of triggering secondary extinctions depend on characteristics of the community (exponent of the abundance-mass relationship), the network (e.g. diversity, ), and the species that is initially lost (e.g., its body mass). Conceptually, these predictions are supported by removal experiments suggesting that allometric trophic network models may elucidate general profiles of extinctions in complex food webs.

**Biography:** After completing his studies of Biology in Frankfurt and Hamburg, Prof. Dr. Ulrich Brose carried out a PhD project at the University of Potsdam on the diversity of beetles and plant on temporal wetlands. While this diversity research was entirely empirical, he focused his postdoc at the San Francisco State University (2001-2004) with Neo Martinez on theoretical projects addressing the structure and dynamics of complex food webs. Subsequently, he intensified this research leading an Emmy-Noether Group at the Technische Universität Darmstadt (2004-2010). Their prior aim was unraveling the interplay of the community body-size structure with population dynamics and food-web stability. Since 2010, he is a Heisenberg professor for Systemic Conservation Biology at the Georg-August University Göttingen. Their main research topics are understanding the consequences of species extinctions and addressing the implications of warming for ecological communities.

## PS6 | Plenary 6 | Time: 9:15 – 10:00

**Carol Eunmi Lee** – Center of Rapid Evolution (CORE), University of Wisconsin, Madison, USA

**Presentation:** “Rapid Evolution during Habitat Invasions”

**Presented by:** J. Kurtz

**Abstract:** A fundamental unresolved problem regards constraints on adaptation to novel environments. Invasive species are often striking in their capacity to overcome such constraints and extend their ranges into novel habitats. In particular, in recent years, invasions from saline to freshwater habitats have become increasingly common. For example, within the past century the copepod *Eurytemora affinis* has invaded freshwater habitats multiple times independently from saline sources. To dissect evolutionary responses during these independent habitat invasions, my laboratory has been integrating analyses of physiological function with comparative functional genomics. Several factors appear to critically affect successful invasions into freshwater habitats, namely, salinity, food concentration, and microbes. We found the evolution of increased freshwater tolerance following saline to freshwater invasions and evolutionary shifts in activity and expression of ion transport enzymes and other loci that affect ionic regulation. We found that high-food concentration could significantly increase low-salinity tolerance. This reliance on ample food for low-salinity tolerance was reduced in the freshwater population, indicating that the food x salinity response has evolved following freshwater invasions. In addition, we found dramatic shifts in the copepod microbiome and parallel shifts across independent invasions. However, a set of core microbial taxa appeared to persist in all copepod populations across all environments. These core taxa include species known to be mutualists in ants and other insects by producing antibiotics or providing nutritional benefits. Such microbial constituents might have important functions for host fitness during invasions. We are currently exploring interactions among the key factors that might constrain or facilitate freshwater invasions and are probing the transcriptional responses of the copepod to these factors, as well as shifts in its microbial metagenome as it invades.

**Biography:** Professor Carol Eunmi Lee’s research focuses on functional and genomic evolution during invasions into novel environments, as well as changes in host-microbial interactions during habitat shifts. Her work has uncovered rapid evolution of physiological response during invasions and fundamental changes in the copepod microbiome. She has also worked on questions regarding speciation, zebra and quagga mussel invasions, and general questions regarding factors that allow populations to invade novel environments. Her group and collaborators have sequenced the copepod transcriptome and are currently sequencing the copepod genome. Professor Lee is currently director of the Center of Rapid Evolution and actively involved as editor for several journals and as grant panelist for the US National Science Foundation and the National Institutes for Health.

## FRIDAY, JULY 5, 2013 | ROOM: EUROPASAAL

## PS7 | Plenary 7 | Time: 8:30 – 9:15

**Emily S. Bernhardt** – Department of Biology, Duke University, Durham, USA

**Presentation:** “Buying and selling freshwater ecosystems: the promise and pitfalls of restoration and mitigation in the management of freshwaters”

**Presented by:** C.N. Dahm

**Abstract:** We increasingly recognize the value of services provided to humans by natural freshwater ecosystems, with new programs being developed to remediate and restore value to historically degraded wetlands, rivers and coasts aim through government regulation or ecosystem service markets. Unfortunately our ability to trade or sell natural capital credits is advancing far more rapidly than our empirical understanding of how ecosystems can be managed to produce these commodities and how to appropriately measure and quantify this natural capital. In this data vacuum, a limited set of restoration approaches have become widely used, accepted and often required by regulators without sufficient evidence that these approaches are in fact achieving their intended goals. To fully engage in the political process that requires and funds restoration and mitigation markets freshwater scientists must evolve from describing pathways of degradation and critiquing modern restoration projects towards building ecologically rigorous design scenarios. I will use examples from my own research to illustrate to explore several key research challenges for freshwater science. We must develop more diverse approaches for restoring multiple ecosystem services. We need to find ways to better match the scale and longevity of ecosystem mitigation projects to the degradation they are intended to offset. We must develop honest indicators of ecosystem service production.

**Biography:** Emily Bernhardt is an associate professor in the Department of Biology at Duke University in North Carolina, USA. She is a biogeochemist whose research is motivated by a desire to understand how watershed management leads to altered nutrient cycling in receiving streams and wetlands and in the potential for restoration efforts to reverse, ameliorate or improve aquatic ecosystem structure and function. Emily has been recognized for her scholarly productivity and her outreach efforts with a 2004 H.G. Hynes Award from the North American Benthological Society and a 2013 Yentsch-Schindler award from the Association for the Science of Limnology and Oceanography.

## PS8 | Plenary 8 | Time: 9:15 – 10:00

**Claudia Dziallas** – University of Copenhagen, Section for Marine Biology, Denmark

**Presentation:** “The environment affects aquatic organisms – and shapes their associated bacterial communities”

**Presented by:** H.P. Grossart

**Abstract:** Bacteria in aquatic environments have primarily been regarded as free-living organisms responsible for degradation of dissolved organic matter although the importance of bacteria associated with particles and organisms, e.g. pathogens, has been well described. We know that bacteria are key players in all nutrient cycles even though the details of the ecological role of particle-associated bacteria in aquatic systems is yet largely unknown. Since both bacterial community composition and their physiological activities are strongly depending on environmental conditions, stressors alter the composition of bacteria associated with hosts, which in turn affects fitness and niche breadth of the hosts as seen in the following examples:

- a) Increased temperature alters the community composition microbes associated with freshwater cyanobacterium *Microcystis aeruginosa* and these associated communities affect the quality and quantity of cyanobacterial toxins. A warmer climate will thus likely enhance the toxicity of cyanobacterial blooms by increasing the proportion of toxic cells within the bloom, and changing the toxicity of the produced toxin.
- b) Food organisms of crustacean zooplankton are altered by environmental conditions and thus change the internal bacterial community composition of the crustaceans by providing different bacterial communities. In contrast, transplanting zooplankton into different environments does not lead to completely new bacterial communities.
- c) Many aquatic ciliates harbor Bacteria, which perform nitrogen fixation. The host provides suitable conditions for their symbionts which results in nitrogen fixation even under high amounts of ammonium in the ambient water.

Here, I will give a number of examples of interactions between microbes and hosts which are affected by the environment. These interactions affect processes, which are potentially important drivers of carbon and nutrient fluxes in aquatic environments, but for which we still have a limited understanding.

**Biography:** Claudia Dziallas is a PostDoc with Lasse Riemann at the University of Copenhagen financed by a Intra-European Fellowship and works there on heterotrophic nitrogen-fixing symbionts of aquatic ciliates. She completed her doctorate at the Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB) on microbial interactions with cyanobacteria and zooplankton under supervision of Hans-Peter Grossart. She is generally interested in aquatic microbial ecology with special focus on investigating microbial interactions with microbes and higher organisms by using molecular and microbiological techniques.

## SESSION TOPICS FOCUSED ON THE GUIDING THEME “FRESHWATER SCIENCE FOR NATURE AND SOCIETY”

**Regular Sessions**

- R01 Special biological aspects of freshwater organisms and communities (July 1, 2013)
- R02 Phylogeny, molecular biodiversity and biogeography (July 1, 2013)
- R03 General aspects of freshwater ecosystems (July 2, 2013)
- R04 Structural and functional biodiversity (July 4, 2013)
- R05 Food web connections within and across habitats (July 4, 2013 | July 5, 2013)
- R06 Biofilms and microbial processes (July 1, 2013)
- R07 Biogeochemistry (July 2, 2013)
- R08 Global change: extreme events and long-term trends (July 2, 2013)
- R09 Ecological quality assessment (July 4, 2013)
- R10 Viability and ecological significance of datasets (July 2, 2013)
- R11 Restoration, conservation, sustainability (July 4, 2013 | July 5, 2013)
- R12 Novel tools and methods (July 4, 2013)
- R13 Invasive species (July 4, 2013)
- R14 Acute and chronic effects of environmental stress (July 4, 2013 | July 5, 2013)

**Special Sessions**

- SS01 Ecological and taxonomic classification of freshwater biota: complementary or alternative tools to investigate freshwater biodiversity patterns? (July 2, 2013)
- SS02 Symbiotic and parasitic interaction in aquatic organisms: Gain or pain? (July 1, 2013)
- SS03 Biodiversity of Freshwater Ecosystems: Status, Trends, Pressures, and Conservation Priorities (July 4, 2013)
- SS04 Biodiversity and functional processes in high alpine river ecosystems (July 1, 2013)
- SS05 Ecology and management of littoral zones (July 5, 2013)
- SS06 Integrating temporary rivers into river ecology and management (July 2, 2013)
- SS07 Advances in ecohydrological research at surface-groundwater interfaces (July 1, 2013)
- SS08 Organic carbon and nutrient dynamics in freshwaters under global change (July 1, 2013)
- SS09 Salinisation of running waters (July 1, 2013)
- SS10 Using ecological principles to assess xenobiotic effects on freshwater communities and ecosystem functions (July 2, 2013)
- SS11 Urban water bodies (July 1, 2013)
- SS12 LIFE for freshwater ecosystems: challenges and achievements of an EU funding instrument (July 2, 2013 | July 4, 2013)
- SS13 Models of Freshwater Ecosystems: advances, challenges and new applications (July 4, 2013 | July 5, 2013)
- SS14 Societal concerns and capacity development (July 2, 2013)

Monday July 1, 2013						
	Europasaal		Salon 3	Pavillon I	Pavillon III	Foyer + Lobby
	Salon 1	Salon 2				
08:00–09:00						Registration
09:00–09:45	Opening & EFFS Award Ceremony					
09:45–10:15	Tonolla, D. - Plenary 1					
10:15–11:00	Sterner, R. W. - Plenary 2					
11:00–11:45	Morning Break					
11:45–12:00	R01-01. Becker, J.	SS11-01. Sommerhäuser, M. M.	SS09-01. Cañedo-Argüelles, M.	SS08-01. Dahm, C. N.	R02-01. Leese, F.	
12:00–12:15	R01-02. Alp, M.	SS11-02. Stemplewski, J.	SS09-02. Schäfer, R.	SS08-02. Hegewald, T.	R02-02. Duarte, S.	
12:15–12:30	R01-03. Csabai, Z.	SS11-03. Korte, T.	SS09-03. Schulz, C. - J.	SS08-03. Kamjunke, N.	R02-03. Paz-Vinas, I.	
12:30–12:45	R01-04. Ivković, M.	SS11-04. Schütz, C.	SS09-04. Pohl, E.	SS08-04. Graeber, D.	R02-04. MacHer, J.	
12:45–14:00	Lunch					
14:00–14:15	R01-05. Karczewski, K.	SS11-05. Podraza, P. C. B.	SS07-01. Larned, S.	SS08-05. von Schiller, D.	R02-05. Rutschmann, S.	
14:15–14:30	R01-06. Gruberts, D.	SS11-06. Oulton, L. J.	SS07-02. Trauth, N.	SS08-06. Elozegi, A.	R02-06. Previšić, A.	
14:30–14:45	R01-07. Lübke, K.	SS11-07. Weigelhofer, G.	SS07-03. Mendoza-Lera, C.	SS08-07. Aristi, I.	R02-07. Polásek, M.	
14:45–15:00	R01-08. Pardo, I.	SS11-08. Mutz, M.	SS07-04. Vazquez Garcia, E.	SS08-08. Cheruvelli, K. S.	R02-08. Elbrecht, V.	
15:00–15:15	R01-09. Trigal, C.	SS11-09. Petruck, A.	SS07-05. Lansdown, K.	SS08-09. Halbedel, S.	R02-09. Kurmayer, R.	
15:15–15:30	R01-10. Paul, R. - J.	SS11-10. Gadowski, P.	SS07-06. Blodau, C.	SS08-10. Riis, T.	R02-10. Schwarzenberger, A.	
15:30–16:00	Afternoon Break					
16:00–16:15	SS04-01. Robinson, C. T.	R06-01. Weitere, M.	SS07-07. Kath, J.	SS08-11. Fernandes, I.,	SS02-01. Grossart, H. - P.	
16:15–16:30	SS04-02. Singer, G.	R06-02. Bengtsson, M. M.	SS07-08. Robertson, A.	SS08-12. Flores, L.	SS02-02. Stoll, S.	
16:30–16:45	SS04-03. Rott, E.	R06-03. Ponsati, L.	SS07-09. Wood, P.	SS08-13. Berezina, N.	SS02-03. Grabner, D.	
16:45–17:00	SS04-04. Eisendle, U.	R06-04. Sanaei Moghadam, F.	SS07-10. von Fumetti, S.	SS08-14. Pastor, A.	SS02-04. Selbach, C.	
17:00–17:15	SS04-05. Alther, R.	R06-05. Shams, S.	SS07-11. Wigger, F.	SS08-15. Lupon, A.	SS02-05. Nachev, M.	
17:15–17:30	SS04-06. Clitherow, L.	R06-06. Majdi, N.	SS07-12. Stein, H.	SS08-16. Krause, S.	SS02-06. Scharsack, J. P.	
18:00–20:00					Discussion Forum "Ethics in Science"	

Posters &amp; Exhibition

## MORNING SESSIONS

**R01 | Special biological aspects of freshwater organisms and communities (Part I)****Type: Oral Presentation | Time: 11:45 – 12:45 | Room: Salon 1****Chair: Koop, J.**

- 11:45 **R01-01** **Mate guarding in relation to seasonal changes in the energy reserves of *Gammarus fossarum* and *G. pulex* (#566)**  
Becker, J., Ortmann, C., Wetzel, M., Winkelmann, C., Koop, J.
- 12:00 **R01-02** **Mayfly mating strategies: a molecular study on *Baetis rhodani*. (#386)**  
Alp, M., Monaghan, M. T.
- 12:15 **R01-03** **Phototaxis and polarotaxis hand in hand: night dispersal flight behaviour of aquatic insects distracted by two synergistic optical cues (#487)**  
Csabai, Z., Kriska, G., Horvath, G., Boda, P.
- 12:30 **R01-04** **Perennial population dynamics of dance flies (diptera, empididae) at freshwater karst habitats (#94)**  
Ivković, M., Barišić, M., Mihaljević, Z.

**SS11 | Urban water bodies (Part I)****Type: Oral Presentation | Time: 11:45 – 12:45 | Room: Salon 2****Chairs: Podraza, P. B., Sommerhäuser, M.M.**

- 11:45 **SS11-01** **Urban water bodies – an overview (#188)**  
Sommerhäuser, M. M., Podraza, P. C. B.
- 12:00 **SS11-02** **The restoration of the Emscher - Europe's largest project for the ecological improvement of a whole river system (#173)**  
Stemplewski, J., Sommerhäuser, M. M.
- 12:15 **SS11-03** **Are successful restoration measures of urban water bodies possible? (#131)**  
Korte, T., Semrau, M.
- 12:30 **SS11-04** **Fish and the City (#600)**  
Schütz, C.

**SS09 | Salinisation of running waters****Type: Oral Presentation | Time: 11:45 – 12:45 | Room: Salon 3****Chair: Schulz, C.-J.**

- 11:45 **SS09-01** **Exploring the effects of secondary salinisation on stream aquatic communities: a mesocosms approach (#89)**  
Cañedo-Argüelles, M., Prat Fornells, N.
- 12:00 **SS09-02** **Salinity paradox: mismatch between laboratory-based risk assessment and field studies on the effect of salinity on stream macroinvertebrates. (#264)**  
Schäfer, R., Kefford, B.
- 12:15 **SS09-03** **The puzzle of salinisation: Geogenic and anthropogenic salt inputs of rivers of the South Harz region (Germany) (#360)**  
Schulz, C. - J., Stodolny, U., Sommer, T.
- 12:30 **SS09-04** **Desalination of the river Wipper (Thuringia, Germany): Results from long-term monitoring of the algae (#419)**  
Pohlon, E., Ekschmitt, K., Gebühr, C.

**SS08 | Organic carbon and nutrient dynamics in freshwaters under global change (Part I)****Type: Oral Presentation | Time: 11:45 – 12:45 | Room: Pavillon I****Chairs: Rodríguez-Murillo, J.C.; Filella, M.; Marti, E.; Bernal, S.; Gacia, E.; Serra, A.; Sabater, F.**

- 11:45 **SS08-01** **CONTINUOUS MEASUREMENT OF CARBON AND NUTRIENT DYNAMICS IN STREAMS IN FORESTED CATCHMENTS UNDERGOING GLOBAL CHANGE (#452)**  
Dahm, C. N., Sherson, L., van Horn, D., Shafer, B., Crossey, L.
- 12:00 **SS08-02** **DOC-Trends in Saxonian Reservoir Tributaries (#258)**  
Hegewald, T., Paul, L.
- 12:15 **SS08-03** **DOC and nutrient patterns in a river network along a land use gradient (#355)**  
Kamjunke, N., Büttner, O., Halbedel, S., Weitere, M.
- 12:30 **SS08-04** **Inter-biome comparison of dissolved organic matter composition and concentration in streams of agricultural catchments (#122)**  
Graeber, D., Boéchat, I., Encina, F., Esse, C., Gelbrecht, J., Goyenola, G., Gücker, B., Kronvang, B., Meerhoff, M., Nimptsch, J., Pusch, M., Silva, R. C. S., von Schiller, D., Wolf, M., Zwirnmann, E.

**R02 | Phylogeny, molecular biodiversity and biogeography (Part I)****Type: Oral Presentation | Time: 11:45 – 12:45 | Room: Pavillon III****Chairs: Leese F.; Duarte, S.**

- 11:45     **R02-01**     **Assessing and integrating the level of genetic biodiversity into assessments of freshwater ecosystem quality: New trends and challenges (#282)**  
*Leese, F.*
- 12:00     **R02-02**     **A decade's perspective on the impact of DNA sequencing on aquatic hyphomycete research (#463)**  
*Duarte, S.,* Seena, S., Bärlocher, F., Pascoal, C., Cássio, F.
- 12:15     **R02-03**     **Disentangling the effects of dispersal asymmetry, differences in population sizes and colonization history on genetic diversity patterns in dendritic river systems (#120)**  
*Paz-Vinas, I.,* Loot, G., Blanchet, S.
- 12:30     **R02-04**     **A strange case: Phylogeography and population genetics of *Thremma gallicum* McLACHLAN, 1880. (#283)**  
*MacHer, J.,* Pauls, S. U., Wagner, R., Tollrian, R., Leese, F.

**AFTERNOON SESSIONS****R01 | Special biological aspects of freshwater organisms and communities (Part II)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Salon 1****Chair: Koop, J.**

- 14:00     **R01-05**     **Spatial and geogenic patterns of microbial metagenomics in lowland groundwaters (#559)**  
*Karczewski, K.,* Riss, H., Meyer, E. I.
- 14:15     **R01-06**     **Drift experiments on the Middle Daugava River at the filling phase of the spring floods (#199)**  
*Gruberts, D.,* Paidere, J.
- 14:30     **R01-07**     **Does stocking of pike (*Esox lucius* L.) fry make sense? (#116)**  
*Lübke, K.,* *Hühn, D.,* Arlinghaus, R.
- 14:45     **R01-08**     **Is facilitation between shredders and collectors controlled by nutrient availability? (#462)**  
*Pardo, I.,* Pusch, M.
- 15:00     **R01-09**     **Factors affecting the distribution and blooms of the noxious raphidophyte *Gonyostomum semen* (Ehrenberg) Diesing (#319)**  
*Trigal, C.,* Johansson, K., Hallstan, S., Johnson, R.
- 15:15     **R01-10**     **Physiology meets ecology: water temperature affects population genetic structure and hemoglobin content of *Daphnia* (#217)**  
*Paul, R. - J.,* Zeis, B.

**SS11 | Urban water bodies (Part II)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Salon 2****Chairs: Podraza, P. B.; Sommerhäuser, M. M.**

- 14:00     **SS11-05**     **Using biological indicators to assess the impact of discharges from combined and separate sewer systems (#33)**  
*Podraza, P. C. B.,* Birk, S., Halle, M.
- 14:15     **SS11-06**     **Do Water Sensitive Urban Design structures deliver what they promise? (#458)**  
*Qulton, L. J.,* Taylor, M., Hose, G.
- 14:30     **SS11-07**     **Effects of floods on the water quality and productivity of a hydrologically degraded urban floodplain (#232)**  
*Weigelhofer, G.,* Bondar-Kunze, E., Preiner, S., Hein, T.
- 14:45     **SS11-08**     **Optimizing channel rehabilitation for heavily modified urban streams (#560)**  
*Mutz, M.,* Michael, S., Halle, M., Hausteiner, M., Lange, C., Schneider, M., Hinkelman, R.
- 15:00     **SS11-09**     **Lake Phoenix – Management and Monitoring of an Artificial Urban Shallow Lake (#357)**  
*Petruck, A.,* Korte T.
- 15:15     **SS11-10**     **The benthos and the chironomid noise - good and bad biodiversity of a city channel (#623)**  
*Gadawski, P.,* Hannibal, A., Olas, I., Meyer, E. I., *Riss, H. W.*

**SS07 | Advances in ecohydrological research at surface-groundwater interfaces (Part I)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Salon 3****Chairs: Larned, S.T.; Datry, T.; von Fumetti, S.; Hahn, H.J.; Krause, S; Mendoza-Lera, C.; Schmidt, C.**

- 14:00 **SS07-01 Ecological dynamics in shallow alluvial aquifers and the effects of groundwater and river flow fluctuations (#104)**  
Larned, S., Unwin, M., Boustead, N., Lambert, P., Fenwick, G., Scarsbrook, M.
- 14:15 **SS07-02 Coupled model of turbulent stream flow and hyporheic flow under varying hydraulic conditions. (#109)**  
Trauth, N., Schmidt, C., Maier, U., Fleckenstein, J. H.
- 14:30 **SS07-03 Why and how to consider hyporheic hydrogeomorphology for sand-gravel stream metabolic function (#253)**  
Mendoza-Lera, C., Mutz, M.
- 14:45 **SS07-04 Impact of dry-rewetting hydrological cycle on bioavailability of dissolved organic carbon molecular weight fractions in a Mediterranean stream (#168)**  
Vazquez Garcia, E., Ylla Montfort, I., Romani, A. M., Butturini, A.
- 15:00 **SS07-05 In-situ measurements of nitrogen transformations at surface-groundwater interfaces (#203)**  
Lansdown, K., Heppell, K., Trimmer, M., Ullah, S., Heathwaite, A. L., Binley, A., Byrne, P., Zhang, H.
- 15:15 **SS07-06 Impact of long-term flooding on the hydrology and biogeochemistry of a northern bog in Ontario, Canada (#584)**  
Blodau, C., Kasparbauer, K., Welcherling, L., Knorr, K. - H.

**SS08 | Organic carbon and nutrient dynamics in freshwaters under global change (Part II)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Pavillon I****Chairs: Rodríguez-Murillo, J.C.; Filella, M.; Marti, E.; Bernal, S.; Gacia, E.; Serra, A.; Sabater, F.**

- 14:00 **SS08-05 Impact of dams on biogeochemical processes in Iberian rivers (#138)**  
von Schiller, D., Acuña, V., Aristi, I., Arroita, M., Elosegi, A., Ponsatí, L., Sabater, S.
- 14:15 **SS08-06 Impacts of diversion hydropower on stream ecosystem functioning: the ABSTRACT project (#40)**  
Elosegi, A., Aristi, I., Arroita, M., Besné, P., Díez, J., Flores, L., Ibisate, A., Larrañaga, A., Martinez, M.
- 14:30 **SS08-07 Flow regulation affects carbon flux in Mediterranean rivers (#185)**  
Aristi, I., Arroita, M., Ponsatí, L., von Schiller, D., Acuña, V., Sabater, S., Elosegi, A.
- 14:45 **SS08-08 A conceptual framework for understanding multi-scaled cause-effect relationships between terrestrial and aquatic ecosystems (#498)**  
Cheruvellil, K. S., Soranno, P., Bissell, E., Bremigan, M. T., Downing, J., Fergus, C. E., Filstrup, C., Lottig, N., Henry, E. N., Stanley, E., Stow, C., Tan, P. - N., Webster, K.
- 15:00 **SS08-09 Linkage between the temporal and spatial variability of dissolved organic matter and whole stream metabolism (#187)**  
Halbedel, S., Büttner, O., Weitere, M.
- 15:15 **SS08-10 Macrophyte habitats are hot-spots for organic carbon and nitrogen retention in lowland streams (#491)**  
Riis, T., Baisner, A. J., Mætzke, K., Kjær, M., Levi, P. S., Baattrup-Pedersen, A.

**R02 | Phylogeny, molecular biodiversity and biogeography (Part II)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Pavillon III****Chairs: Leese F.; Duarte, S.**

- 14:00 **R02-05 Complex colonization of oceanic islands by mayflies (Ephemeroptera: Baetidae) (#366)**  
Rutschmann, S., Gattolliat, J. - L., Hughes, S. J., Báez, M., Sartori, M., Monaghan, M. T.
- 14:15 **R02-06 Micro-Scale Vicariance and Diversification of Western Balkan Caddisflies Linked to Karstification (#95)**  
Previšić, A., Schnitzler, J., Kučinić, M., Graf, W., Ibrahim, H., Kerovec, M., Pauls, S. U.
- 14:30 **R02-07 Polyphasic taxonomy of the genus *Electrogena* (Ephemeroptera: Heptageniidae) in Central Europe (#473)**  
Polášek, M., Zahrádková, S., Roman, J., G.
- 14:45 **R02-08 Genetic diversity and dispersal potential of the stonefly *Dinocras cephalotes* in a central European low mountain range (#280)**  
Elbrecht, V., Tollrian, R., Leese, F.
- 15:00 **R02-09 Genetic population structure, evolutionary loss of toxin synthesis genes and secondary metabolite synthesis in the cyanobacterium *Planktothrix* (#435)**  
Kurmayer, R., Frei, M., Christiansen, G., Pernthaler, J., Blom, J.
- 15:15 **R02-10 Microevolution in *Daphnia*: seasonal or local adaptation to cyanobacterial protease inhibitors? (#363)**  
Schwarzenberger, A., von Elert, E.

**SS04 | Biodiversity and functional processes in high alpine river ecosystems****Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Salon 1****Chair: Brown, L.**

- 16:00 **SS04-01 Lotic Bacterial Assemblages in Alpine Streams (#31)**  
Robinson, C.T., Freimann, R., Buegmann, H., Findlay, S.
- 16:15 **SS04-02 Consequences of Alpine glacier retreat on the biogeochemistry and microbial biodiversity of glacier streams (#371)**  
Singer, G., Wilhelm, L., Fasching, C., Besemer, K., Niggemann, J., Steier, P., Dittmar, T., Battin, T.
- 16:30 **SS04-03 Are diversity gradients and niche features of algal communities in high alpine streams regulated by specific stressors? (#127)**  
Rott, E., Gesierich, D.
- 16:45 **SS04-04 Glaciers retreat, river habitats emerge and change - but what is the fate of small riverine biota? (#96)**  
Eisendle, U., Jersabek, C., Traunspurger, W., Kichmair, M.
- 17:00 **SS04-05 Non-glacial Streams as Biodiversity Hotspots in Glaciated Alpine Catchments (#105)**  
Alther, R., Robinson, C.T., Thompson, C.
- 17:15 **SS04-06 Food web structure in a harsh glacier-fed river (#13)**  
Clitherow, L., Carrivick, J., Brown, L.

**R06 | Biofilms and microbial processes****Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Salon 2****Chairs: Risse-Buhl, U.; Norf, H.**

- 16:00 **R06-01 Microbial food web interactions within biofilms (#577)**  
Weitere, M., Erken, M., Norf, H., Wey, J. K.
- 16:15 **R06-02 Interactions between recalcitrant and labile organic carbon in streams - Can stream biofilms mediate priming effects? (#538)**  
Bengtsson, M. M., Wagner, K., Burns, N. R., Herberg, E. R., Wanek, W., Kaplan, L. A., Battin, T.
- 16:30 **R06-03 Flow Regulation by Dams in Mediterranean Streams: Biofilm Responses (#336)**  
Ponsati, L., Acuña, V., von Schiller, D., Aristi, I., Arroita, M., Elosegui, A., Sabater, S.
- 16:45 **R06-04 Interactions between warming, nutrient enrichment and detritivores on litter decomposition and associated microbial decomposers (#14)**  
Sanaei Moghadam, F., Zimmer, M.
- 17:00 **R06-05 Experimental models of microcystin accumulation in *Daphnia magna* grazing on *Planktothrix rubescens*: potential for microcystin transfer through the food web (#533)**  
Shams, S., Cerasino, L., Salmaso, N., Dietrich, D.
- 17:15 **R06-06 A predator provides its preys with “well-being”: case of a flatworm foraging in headwater leaf packs (#103)**  
Majdi, N., Boiché, A., Traunspurger, W., Lamothe, S., Lambrigot, D., Lecerf, A.

**SS07 | Advances in ecohydrological research at surface-groundwater interfaces (Part II)****Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Salon 3****Chairs: Larned, S.T.; Datry, T.; von Fumetti, S.; Hahn, H.J.; Krause, S; Mendoza-Lera, C.; Schmidt, C.**

- 16:00 **SS07-07 Surface-groundwater interactions and ecological responses to low flows: Riffle invertebrates in the Upper Murrumbidgee of south-eastern Australia (#324)**  
Kath, J., Dyer, F., Lucena-Mayo, P., Harrison, E., Tschierschke, A.
- 16:15 **SS07-08 Chalk river hyporheic communities respond to variations in surface-subsurface exchange at the reach scale. (#118)**  
Robertson, A.
- 16:30 **SS07-09 Contrasts in benthic and hyporheic faunal responses to an extreme supra-seasonal drought (#572)**  
Wood, P., Boulton, A., Little, S., Stubbington, R.
- 16:45 **SS07-10 Faunistic assemblages of alpine springs – variability or stability? (#455)**  
von Fumetti, S., Wigger, F., Nagel, P.
- 17:00 **SS07-11 Faunistic changes along an altitudinal gradient in springs in the Bernese Alps (CH) (#518)**  
Wigger, F.
- 17:15 **SS07-12 Groundwater-surface water-interactions shape stygofauna on different spatial scales – Findings from a karstic area in southern Germany (#593)**  
Stein, H., Hahn, H. J.

**SS08 | Organic carbon and nutrient dynamics in freshwaters under global change (Part III)****Type: Oral Presentation | Time: 16:00 – 17:45 | Room: Pavillon I****Chairs: Rodríguez-Murillo, J.C.; Filella, M.; Martí, E.; Bernal, S.; Gacia, E.; Serra, A.; Sabater, F.**

- 16:00 **SS08-11** **Effects of riparian plant diversity loss on detritus food webs become more pronounced at longer times** (#327)  
Fernandes, L., Duarte, S., Pascoal, C., Cássio, F.
- 16:15 **SS08-12** **Effects of restoration of wood loading on instream nutrient and leaf retention** (#49)  
Flores, L., Elorriaga, C., Díez, J. R., Elozegi, A.
- 16:30 **SS08-13** **The role of benthic invertebrates in the phosphorus flux in lakes, with examples from oligotrophic Lake Krivoe and eutrophic Lake Donghu** (#251)  
Berezina, N., Golubkov, S.
- 16:45 **SS08-14** **Temporal variation in <sup>15</sup>N natural abundance of primary uptake compartments in four streams subjected to different human impacts** (#404)  
Pastor, A., Peipoch, M., Cañas, L., Ribot, M., Sabás, I., Gomà, J., Gacia, E., Riera, J. L., Martí, E., Sabater, F.
- 17:00 **SS08-15** **Patterns of daily variability in stream nitrate concentration during riparian canopy leaf-out** (#393)  
Lupon, A., Bernal, S., Poblador, S., Martí, E., Sabater, F.
- 17:15 **SS08-16** **Groundwater controls on hyporheic exchange flow patterns and associated biogeochemical activity hotspots in lowland rivers** (#102)  
Krause, S., Matthias, M., Tecklenburg, C., Blume, T., Andrew, B.

**SS02 | Symbiotic and parasitic interaction in aquatic organisms: Gain or pain?****Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Pavillon III****Chairs: Grossart, H.-P.; Kurtz, J.; Dziallas, C.; Tam, K.; Sures, B.**

- 16:00 **SS02-01** ***Stentor amethystinus*: ecological consequences of multitrophic interactions** (#326)  
Grossart, H. - P.
- 16:15 **SS02-02** **Density-dependent relationship between *Chaetogaster limnaei limnaei* (Oligochaeta) and the freshwater snail *Physa acuta* (Pulmonata)** (#517)  
Stoll, S., Früh, D., Westerwald, B., Hormel, N., Haase, P.
- 16:30 **SS02-03** **Parasites of aquatic insect larvae: are they relevant for water quality assessment?** (#133)  
Grabner, D., Dangel, D., Sures, B.
- 16:45 **SS02-04** **Bird schistosomes and other trematodes in freshwater snails from the Ruhr area in Germany: troublemakers and ecosystem players** (#189)  
Selbach, C., Soldánová, M., Sures, B.
- 17:00 **SS02-05** **Trophic interactions between different fish hosts and their associate parasites with a special reference to heavy metal accumulation** (#398)  
Nachev, M., Walter, F., Jochmann, M., Kujawinski, D., Schulte, M., Schmidt, T., Sures, B.
- 17:15 **SS02-06** **Some parasites like it hot, but not too hot!** (#242)  
Scharsack, J. P., Dittmar, J., Schmidt, A. M., Jannsen, H., Franke, F., Kurtz, J.

Tuesday July 2, 2013							
	Europasaal			Pavillon I	Pavillon III	Foyer + Lobby	
	Salon 1	Salon 2	Salon 3				
08:30–09:00							
09:00–09:15	Bacchereti, S.; de la Paz, C. – Plenary 3						
09:15–10:00	Padišák, J. – Plenary 4						
10:00–10:45	Morning Break						
10:45–11:00	R03-01. Fiedler, D.	SS10-01. Gessner, M. O.	R07-01. Catalán, N.	SS12-01. Schmidt-Formann, O.	SS14-01. Moss, B.		
11:00–11:15	R03-02. MacKay, E.	SS10-02. Liess, M.	R07-02. Strauss, H.	SS12-02. Bacchereti, S.	SS14-02. Schwarz, A.		
11:15–11:30	R03-03. Rosset, V.	SS10-03. Schäfer, R.	R07-03. Neumann, C.	SS12-03. de la Paz, C.	SS14-03. Tsegai, D.		
11:30–11:45	R03-04. Porst, G.	SS10-04. Bunzel, K.	R07-04. Wolf, M.	SS12-04. Klingsstein, F.	SS14-04. Sebesvari, Z.		
11:45–12:00	R03-05. Risnoveanu, G.	SS10-05. Khrycheva, P.	R07-05. Ritz, S.	SS12-05. Rudolph, J.	SS14-05. Marx, S.		
12:00–12:15	R03-06. Marshall, J.	SS10-06. Schoenborn, A.	R07-06. Ribot Bermejo, M.	SS12-06. Belting, H.	SS14-06. Ardakanian, R.		
12:15–12:30	R03-07. Dorak, Z.	SS10-07. Arce Funck, J.	R07-07. Schaller, J.	SS12-07. Ludwig, J.	SS14-07. Leidel, M.		
12:30–12:45	R03-08. Stefanidis, K.	SS10-08. Tlili, A.	R07-08. Römer, M.	SS12-08. Knoblauch, J.	SS14-08. Ibsch, R.		
12:45–14:00	Lunch						
14:00–14:15	R03-09. Brown, L.	SS06-01. Detry, T.	R08-01. Li, F.	SS12-09. Schauerle, M.	SS01-01. Salmaso, N.	Posters & Exhibition	
14:15–14:30	R03-10. Sheldon, F.	SS06-02. Acuña, V.	R08-02. Spaak, P.	SS12-10. Schimmer, H.	SS01-02. Weithoff, G.		
14:30–14:45	R03-11. Harrison, E.	SS06-03. Bernal, S.	R08-03. Wagner, A.	SS12-11. Benmoh, A.	SS01-03. Rojo, C.		
14:45–15:00	R03-12. Trimmer, M.	SS06-04. Vardakas, L.	R08-04. Jäschke, K.	SS12-12. Geyer, H. J.	SS01-04. Law, R.		
15:00–15:15	R03-13. Shelley, F.	SS06-05. Stubbington, R.	R08-05. Sikora, A.	SS12-13. Terren, S.	SS01-05. Alves, A. S.		
15:15–15:30	R03-14. Baisner, A. J.	SS06-06. Leigh, C.	R08-06. Sharov, A.	SS12-14. Beckers, B.	SS01-06. Gerner, N.		
15:30–16:00	Afternoon Break						
16:00–16:15	R03-15. Pliotto, F.	SS06-07. Skoulikidis, N.	R08-07. Hildrew, A.	SS12-15. Druke, J.	R10-01. Webster, K.		
16:15–16:30	R03-16. Fink, P.	SS06-08. Prat Fornells, N.	R08-08. de Mendoza, G.	SS12-16. Scharbert, A.	R10-02. Wiederkehr, J.		
16:30–16:45	R03-17. Chevalier, M.	SS06-09. Pařil, P.	R08-09. Conti, L.	SS12-17. Clavé, D.	R10-03. Wynne, C.		
16:45–17:00	R03-18. Meinikmann, K.	SS06-10. Zoppini, A.	R08-10. Tornés, E.	SS12-18. Chaiseau, M.	R10-04. Arroita, M.		
17:00–17:15		SS06-11. Steward, A.	R08-11. Lumsdon, A. E.	SS12-19. Salvati, S.	R10-05. Leitao, M.		
17:15–17:30		SS06-12. Meyer, E. I.	R08-12. Pohlon, E.	SS12-20. Pou-Rovira, Q.	R10-06. Chezik, K.		
17:30–17:45							
17:45–18:30						Poster Session (P1) R01, R02, R03, R06, R07, R08, R10, SS01, SS02, SS04, SS06, SS07, SS08, SS09, SS10, SS12, SS14	
18:30–20:00					EFFS Meeting		

R = Regular Session SS = Special Session P = Poster Session

## MORNING SESSIONS

**R03 | General aspects of freshwater ecosystems (Part I)****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Salon 1****Chair: Rîsnoveanu, G.**

- 10:45 **R03-01** **Effects of dissolved organic nitrogen (DON) on phytoplankton development in limnic ecosystems (#349)**  
Fiedler, D., Grossart, H. - P., Zwirnmann, E., Koehler, J.
- 11:00 **R03-02** **Understanding the implications of sub-seasonal variations in the weather for internal phosphorus loading in a small, eutrophic lake (#165)**  
MacKay, E., Folkard, A., Jones, I.
- 11:15 **R03-03** **Is eutrophication really a major impairment for small waterbodies' biodiversity? (#37)**  
Rosset, V., Angélibert, S., Arthaud, F., Bornette, G., Robin, J., Wezel, A., Vallod, D., Oertli, B.
- 11:30 **R03-04** **Littoral invertebrate fauna of European lakes: biogeographic distribution and community composition patterns (#77)**  
Porst, G., Miler, O., Donohue, L., Jurca, T., McGoff, E., Pilotto, F., Pusch, M.
- 11:45 **R03-05** **Spatial and temporal distribution patterns of weed bed fauna communities in shallow lakes in the Small Island of Braila (Romania) (#551)**  
Rîsnoveanu, G., Radu, E.
- 12:00 **R03-06** **Climate variability, palaeoecology and Australian wetland ecosystems (#178)**  
Marshall, J., Barr, C., Tibby, J., McGregor, G., Negus, P.
- 12:15 **R03-07** **Zooplankton fauna of lake Manyas (Turkey) and their relationship between selected environmental parameters (#307)**  
Dorak, Z., Köker, L., Sağlam, O., Akçaalan, R., Albay, M.
- 12:30 **R03-08** **Assessing implications of land cover and land use changes on the ecology of two lakes in NW Greece in relation to long term water level fluctuation. (#380)**  
Stefanidis, K., Kostara, A., Papastergiadou, E.

**SS10 | Using ecological principles to assess xenobiotic effects on freshwater communities and ecosystem functions****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Salon 2****Chairs: Tlili, A.; Schäfer, R. B.; Pascoal, C.; Liess, M.; Gessner, M. O.**

- 10:45 **SS10-01** **Freshwater ecology meets ecotoxicology (#430)**  
Gessner, M. O.
- 11:00 **SS10-02** **Bridging Ecotoxicology and Ecology (#447)**  
Liess, M.
- 11:15 **SS10-03** **Are organic toxicants a major threat for the ecological integrity of freshwater ecosystems? (#21)**  
Schäfer, R., Beketov, M., Kefford, B., Liess, M., Malaj, E., von der Ohe, P., Peters, K., Rasmussen, J.
- 11:30 **SS10-04** **Macroinvertebrate communities of streams: under threat by different sources of pesticides (#267)**  
Bunzel, K., Kattwinkel, M., Liess, M.
- 11:45 **SS10-05** **The influence of riparian forest patches and pesticide runoff on the macroinvertebrate community composition (#579)**  
Khrycheva, P., Muenze, R., Beketov, M., Liess, M.
- 12:00 **SS10-06** **How do drainages contribute to estrogenic activity in freshwater systems? A field study in Eastern Switzerland (#136)**  
Schoenborn, A., Kunz, P., Grimmer, A. A.
- 12:15 **SS10-07** **Interactive effects of ionic silver and phosphorus on aquatic fungi and leaf litter decomposition (#574)**  
Arce Funck, J., Clivot, H., Felten, V., Guérol, F., Danger, M.
- 12:30 **SS10-08** **Silver nanoparticle effects on stream microbial communities on decomposing leaf litter (#477)**  
Tlili, A., Cornut, J., Behra, R., Gil-Allue, C., Gessner, M. O.

**R07 | Biogeochemistry****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Salon 3****Chairs: Blodau, C.; Strauss, H.**

- 10:45 **R07-01** **Priming effect in freshwater ecosystems: response of lake water dissolved organic carbon to labile C pulses (#196)**  
Catalán, N., Kellerman, A., Peter, H., Tranvik, L.
- 11:00 **R07-02** **Biogeochemistry of a dimictic lake revealed by stable isotopes (#82)**  
Strauss, H., Fugmann, A., Lutter, A., Pust, J., Teichert, B.
- 11:15 **R07-03** **Pelagic redoxclines and the transport of particulate organic phosphorus (#581)**  
Neumann, C., Kleeberg, A., Hupfer, M.
- 11:30 **R07-04** **The effect of agricultural land use on quality, quantity and seasonal fluctuations of dissolved organic carbon and nitrogen export through headwater streams (#514)**  
Wolf, M., Graeber, D., Zwirnmann, E., Gelbrecht, J., Pusch, M.

- 11:45 **R07-05 Nitrogen turnover in a large, nitrogen rich river – assimilation vs. denitrification** (#485)  
Ritz, S., Fischer, H.  
Federal Institute of Hydrology, Am Mainzer Tor 1, 56068 Koblenz, Germany
- 12:00 **R07-06 Nitrate or ammonium? Periphyton responses to different N species** (#353)  
Ribot Bermejo, M., von Schiller, D., Sabater Comas, F., Martí Roca, E.
- 12:15 **R07-07 Silicon availability controls microbial decay and nutrient release of grass litter during aquatic decomposition** (#72)  
Schaller, J.
- 12:30 **R07-08 Sulfate in the Baumberge springs, central Münsterland, NW Germany: a stable isotope investigation** (#71)  
Römer, M., Weckwert, N., Göbel, P., Strauss, H.

**SS12 | LIFE for freshwater ecosystems: challenges and achievements of an EU funding instrument (Part I)****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Pavillon I****Chairs: Klingenstein, F.; Brauner, R.; Beek, P.; Sommerhäuser, M.M.**

- 10:45 **SS12-01 LIFE in a special session – background, introduction and welcome** (#615)  
Schmidt-Formann, O., Schauerte, M.
- 11:00 **SS12-02 LIFE Nature for freshwater ecosystems: examples and best practices on the restoration of running waters.** (#412)  
Bacchereti, S.
- 11:15 **SS12-03 LIFE Environment - over 20 years contributing to protect freshwater ecosystems** (#426)  
de la Paz, C.
- 11:30 **SS12-04 Implementation of LIFE+ in Germany** (#604)  
Klingenstein, F.
- 11:45 **SS12-05 LIFE + in NRW - North Rhine-Westphalia** (#376)  
Rudolph, I.
- 12:00 **SS12-06 Implementation of LIFE** (#554)  
Belting, H.
- 12:15 **SS12-07 To accomplish LIFE in the European Context** (#558)  
Ludwig, J., Belting, H.
- 12:30 **SS12-08 LIFE+ Project „Lippeaue“ – a landscape to experience** (#373)  
Knoblauch, J., Schmidt-Formann, O.

**SS14 | Societal concerns and capacity development****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Pavillon III****Chairs: Ardakanian, R. (Organizer); Hülsmann, S. (Organizer)**

United Nations University, Institute for Integrated Management of Material Fluxes and of Resources (UNU-FLORES) – Dresden, Germany

- 10:45 **SS14-01 Limnology, liberation ecology, and our future** (#36)  
Moss, B.
- 11:00 **SS14-02 What do lakes afford? A philosophical perspective on the concept of ecosystem services** (#565)  
Schwarz, A.
- 11:15 **SS14-03 Governance of capacity building in water resources management: a bottom-up approach** (#202)  
Tsegai, D., Thiam, D. R.
- 11:30 **SS14-04 Water-related research and capacity development in the Mekong Delta, Vietnam** (#352)  
Sebesvari, Z.
- 11:45 **SS14-05 Multi-level capacity building in irrigation management: A case study from the Blue Nile basin, Ethiopia.** (#75)  
Marx, S.
- 12:00 **SS14-06 Advancing a nexus approach to the sustainable management of environmental resources: Introducing the United Nations University Institute for Integrated Management of Material Fluxes and of Resources (UNU-FLORES)** (#146)  
Ardakanian, R., Hülsmann, S.
- 12:15 **SS14-07 Fostering water management through capacity development -Lessons from the International Water Research Alliance Saxony (IWAS)** (#222)  
Leidel, M., Seegert, J., Niemann, S., Stefan, C., Phan, H. M., Weigelt, C., Grundmann, J., Lennartz, F.
- 12:30 **SS14-08 Capacity Development in Integrated Water Resources Management (IWRM): Lessons learnt from the BMBF's IWRM Funding Initiative** (#387)  
Ibisch, R., Niemann, S., Leidel, M., Goedert, R., Munoz Escobar, M., Hornidge, A. - K., Ikhwan, M., Krug von Nidda, A., Felmeden, J., Schulz, O.

## AFTERNOON SESSIONS

**R03 | General aspects of freshwater ecosystems (Part II)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Salon 1****Chair: Moss, B.**

- 14:00 **R03-09** **Stream ecosystem responses to moorland vegetation burning across northern England (#15)**  
Brown, L., Johnson, K., Aspray, K., Palmer, S., Holden, J.
- 14:15 **R03-10** **Sacrificing the “boom” and prolonging the “bust”: water resource development and hydrological variability in Australia’s inland rivers (#325)**  
Sheldon, F.
- 14:30 **R03-11** **A long time between drinks: the influence of increased river flows on Upper Murrumbidgee River condition (#139)**  
Harrison, E., Dyer, F.
- 14:45 **R03-12** **Maximum efficiency of river-bed carbon fixation by methanotrophs (#272)**  
Trimmer, M., Maanoja, S., Shelley, F., Grey, J.
- 15:00 **R03-13** **Seasonal methane oxidation as a chemosynthetic carbon source in rivers (#275)**  
Shelley, F., Grey, J., Trimmer, M.
- 15:15 **R03-14** **Stream metabolism in a macrophyte-dominated stream – continuous measurements for one year (#582)**  
Baisner, A. J., Riis, T., Levi, P. S., Baattrup-Pedersen, A.

**SS06 | Integrating temporary rivers into river ecology and management (Part I)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Salon 2****Chairs: Datry, T., Tockner, K.; Bonada, N.; v. Schiller, D.; Meyer, E.I.**

- 14:00 **SS06-01** **Temporary rivers: a challenge for freshwater science (#12)**  
Datry, T., Scott, L., Tockner, K.
- 14:15 **SS06-02** **Thresholds and nonlinearity between the temporal extent of intermittency and stream ecosystem processes, a mesocosms approach (#176)**  
Acuña, V., Corcoll, N., Timoner, X., Casellas, M., Sabater, S.
- 14:30 **SS06-03** **Hydrological extremes and the biogeochemical heartbeat of Mediterranean temporary streams (#50)**  
Bernal, S., von Schiller, D., Sabater, F., Martí, E.
- 14:45 **SS06-04** **Assessing the effects of drought and the recovery processes of fish assemblages in a Mediterranean basin (#302)**  
Vardakas, L., Kalogianni, E., Economou, A. N., Chatzinikolaou, Y., Koutsoubas, D., Kommatas, D., Zogaris, S., Koutsikos, N., Skoulikidis, N.
- 15:00 **SS06-05** **The macroinvertebrate seedbank promotes community resistance to drying in temporary streams (#2)**  
Stubbington, R.
- 15:15 **SS06-06** **Flow cessation, waterbody isolation and riparian vegetation moderate the potential subsidy of aquatic fauna to the terrestrial zone (#63)**  
Leigh, C., Sheldon, F., Reis, T.

**R08 | Global change: extreme events and long-term trends (Part I)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Salon 3****Chairs: Spaak, P.; Hildrew, A.**

- 14:00 **R08-01** **Climate change impacts on benthic macroinvertebrates in Central Europe: A long-term analysis (#132)**  
Li, F., Stoll, S., Sundermann, A., Haase, P.
- 14:15 **R08-02** ***Daphnia* populations in (ultra) oligotrophic lakes? (#190)**  
Spaak, P., Rellstab, C.
- 14:30 **R08-03** **A phenomenological approach for cross-system analysis of climate effects on temperature patterns and ecosystem response in aquatic systems (#226)**  
Wagner, A., Hülsmann, S., Paul, L., Petzoldt, T., Sachse, R., Berendonk, T., Schiller, T., Zeis, B.
- 14:45 **R08-04** **How do German drinking water reservoirs respond to climate change? (#228)**  
Jäschke, K., Sachse, R., Hegewald, T., Petzoldt, T., Wagner, A., Paul, L., Berendonk, T.
- 15:00 **R08-05** **Influence of the filamentous cyanobacteria and water temperature on body-size dependent competitive ability among *Daphnia* species (#164)**  
Sikora, A.
- 15:15 **R08-06** **Structure of plankton and benthic communities in Large Lake Onega (Northern Russia) under climatic changes (#84)**  
Sharov, A., Nazarova, L., Polyakova, T.

**SS12 | LIFE for freshwater ecosystems: challenges and achievements of an EU funding instrument (Part II)**

Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Pavillon I

Chairs: Klingenstein, F.; Brauner, R.; Beck, P.; Sommerhäuser, M.M.



- 14:00 **SS12-09** **LIFE+ Project „Lippeaue“ – Improvement of the connection between the river and the floodplain (#375)**  
Schauerte, M., [Schmidt-Formann, O.](#)
- 14:15 **SS12-10** **The renaturation of the river Ems: concept and implementation (#88)**  
[Schimmer, H.](#), Weßling, G., Reinhard, F.
- 14:30 **SS12-11** **LIFE+ „Ems - Dynamik + Habitate“: Enhancing river dynamics and habitat diversity (#420)**  
[Benmoh, A.](#), Brockmann-Krabbe, U., Berling, H.
- 14:45 **SS12-12** **Characterisation of the upper and the middle course of the Möhne valley (#337)**  
Geyer, H. J., [Terren, S.](#), Prolingheuer, U.
- 15:00 **SS12-13** **Restoration and improvement of the upper and the middle course of the Möhne valley (#339)**  
[Terren, S.](#), Hester, C., Zimball, O.
- 15:15 **SS12-14** **Streams and their valleys in the Arnsberg Forest (#493)**  
Beckers, B., [Drüke, J.](#), Loerbroks, R.

**SS01 | Ecological and taxonomic classification of freshwater biota: complementary or alternative tools to investigate freshwater biodiversity patterns?**

Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Pavillon III

Chairs: Naselli-Flores, L.; Padisák, J.

- 14:00 **SS01-01** **Functional classifications in phytoplankton ecology: a comparative review of approaches and experiences (#125)**  
[Salmaso, N.](#), Naselli-Flores, L., Padisák, J.
- 14:15 **SS01-02** **Differences in temporal dynamics of taxonomic and functional diversity under variable environmental forcing (#213)**  
[Weithoff, G.](#), Rocha, M., Gaedke, U.
- 14:30 **SS01-03** **Overlap of biodiversity and functional groups of algae: a case study for managing water quality (Water Framework Directive, EU) in Spanish reservoirs. (#382)**  
Rojo, C., Piñon, A., [Segura, M.](#)
- 14:45 **SS01-04** **Do functional or morphological classifications explain stream phyto-benthic community assemblages? (#512)**  
[Law, R.](#)  
Centre for Ecology and Hydrology Lancaster Environment Centre, Library Ave, Lancaster, La1 4AP, Great Britain
- 15:00 **SS01-05** **Taxonomic and functional classification of free living nematodes in a Southern European estuary: new insights on the functioning of the ecosystem (#231)**  
[Alves, A. S.](#), Costa, M. J., Marques, J. C.
- 15:15 **SS01-06** **The Alberta Oil Sands in Canada: Impact on biodiversity? (#589)**  
[Gerner, N.](#), Kone, M., Ulrich, A., Ross, M., Martin, J., Liess, M.

**R03 | General aspects of freshwater ecosystems (Part III)**

Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Salon 1

Chair: Porst, G.

- 16:00 **R03-15** **Small-scale effects of large wood in a European lowland river: linking hydrogeomorphology and invertebrate diversity (#175)**  
[Pilotto, F.](#), Bertoincin, A., Grau Esteve, B., Han, R., Harvey, G., Wharton, G., Pusch, M.
- 16:15 **R03-16** **Nutritional quality of river seston from two large lowland rivers and potential consequences for filter-feeding consumers (#401)**  
[Fink, P.](#), Becker, G., Norf, H., Parlow, L., Weitere, M.
- 16:30 **R03-17** **Spatial synchrony in stream fish populations: influence of species ecological and life-history traits. (#100)**  
[Chevalier, M.](#), Grenouillet, G., Laffaille, P.
- 16:45 **R03-18** **Phosphorus-loads to surface waters from agricultural catchments – Do we need high resolution measurements? (#528)**  
[Meinikmann, K.](#), Sacher, A., Graumnitz, S., Piekarski, J., Hupfer, M., Lewandowski, J.
- 17:00 **R03-19** **Network and habitat connectivity drive patterns of species diversity of invertebrate communities : a metacommunity-phylogenetic approach (#67)**  
[Seymour, M.](#), Altermatt, F.

**SS06 | Integrating temporary rivers into river ecology and management (Part II)****Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Salon 2****Chairs: Datry, T.; Tockner, K.; Bonada, N.; v. Schiller, D.; Meyer, E.I.**

- 16:00 **SS06-07** **Temporary streams in Mediterranean Europe: Assessing research, management and conservation needs** (#334)  
Skoulikidis, N., Datry, T., Sabater, S., Sanchez-Montoya, M. D. M., Morais, M., Zogaris, S., Karaouzas, I., Tockner, K.
- 16:15 **SS06-08** **The MIRAGE Toolbox: An integrated assessment tool for temporary streams** (#78)  
Prat Fornells, N.
- 16:30 **SS06-09** **Indication of stream intermittency using macroinvertebrate communities – searching for an applicable approach in the Czech Republic** (#299)  
Pařil, P., Syrovátka, V., Zahrádková, S., Němejcová, D., Straka, M., Tajmrová, L., Řezníčková, P., Opatřilová, L., Polášek, M.
- 16:45 **SS06-10** **Variability of hazardous substances and microbial processes in riverine sediments subject to fluctuating flow conditions** (#204)  
Zoppini, A., Ademollo, N., Amalfitano, S., Casella, P., Capri, S., Patrolecco, L., Polesello, S.
- 17:00 **SS06-11** **A new frontier: responses of terrestrial invertebrates in dry river beds to landscape disturbance** (#362)  
Steward, A.
- 17:15 **SS06-12** **Flow intermittency and biodiversity patches in vastly different running waters – implications for conservation and management** (#597)  
Meyer, E.I., Meyer, A., Schellenberg, E. T., Zah, R., Riss, H. W.

**R08 | Global change: extreme events and long-term trends (Part II)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Salon 3****Chairs: Spaak, P.; Hildrew, A.**

- 16:00 **R08-07** **Long-term amelioration of acidity accelerates decomposition in headwater streams** (#57)  
Hildrew, A., Jenkins, G. B., Woodward, G.
- 16:15 **R08-08** **Air temperature, not water temperature, constrains the distribution of *Sialis lutaria* (L.) in mountain lakes** (#290)  
de Mendoza, G., Catalan, J.
- 16:30 **R08-09** **Extinction risk in freshwater ecosystems: how pervasive is climate change?** (#617)  
Conti, L., Grenouillet, G., Comte, L., Hugueny, B.
- 16:45 **R08-10** **Effect of flood events on diatom communities at different spatial scales within a semiarid river network** (#328)  
Tornés, E., Acuña, V., Dahm, C. N., Horner, M., Sabater, S.
- 17:00 **R08-11** **Current hydropower development: a global synthesis** (#219)  
Lumsdon, A. E., Tydecks, L., Tockner, K., Berlekamp, J., Zarfl, C.
- 17:15 **R08-12** **Bacterial community structure and function during desiccation and rewetting of temperate streambed sediments** (#544)  
Marxsen, J., Fandino Ochoa, A., Pohlson, E.

**SS12 | LIFE for freshwater ecosystems: challenges and achievements of an EU funding instrument (Part III)****Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Pavillon I****Chairs: Klingenstein, F.; Brauner, R.; Beck, P.; Sommerhäuser, M.M.**

- 16:00 **SS12-15** **Restoration of streams and their floodplains in the Arnsberg Forest** (#494)  
Drüke, J., Beckers, B., Loerbroks, R.
- 16:15 **SS12-16** **The Life+ Project “Alosa alosa”: Measures for the conservation and the restoration of populations of the Allis shad in Europe Part 1: Measures to re-establish an Allis shad population in the Rhine system\*** (#229)  
Scharbert, A., Clavé, D., Chanseau, M., Jatteau, P., Guerri, O., Chaumel, A., Klinger, H.
- 16:30 **SS12-17** **The Life+ Project “Alosa alosa” part 2: Breeding techniques for Allis shad, improvement of knowhow dealing with natural constraints, developing of black-box to monitor practices as support of conservation and restoration measures.** (#300)  
Clavé, D.
- 16:45 **SS12-18** **The Life+ Project “Alosa alosa”: Measures for the conservation and the restoration of populations of the Allis shad in Europe - Part 3: Preliminary results of research on the causes for the decline of a formerly vital Allis shad population in the Southwest of France.** (#506)  
Chanseau, M., Scharbert, A., Guerri, O., Jatteau, P., Chaumel, A., Clavé, D., Klinger, H.
- 17:00 **SS12-19** **Restoration of Bacchiglione Springs and habitat of SPA IT3220013 and SCI IT3220040 SOR.BA-LIFE09 NAT/IT/000213** (#318)  
Salviati, S., Picelli, S., Zigliotto, S.
- 17:15 **SS12-20** **Proyecto Estany, a LIFE+ project for the recovery of native biodiversity in Lake Banyoles: aims and first results** (#303)  
Pou-Rovira, Q., Campos, M., Feo, C., Camós, I.

**R10 | Viability and ecological significance of datasets****Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Pavillon III****Chair: Elosegi, A.**

- 16:00     **R10-01**     **Hydromorphology and landscape controls on the mean and variance of lake trophic status and water chemistry (#428)**  
Webster, K., Wynne, C., Garcia Molinos, J., Tierney, D., Quinn, R., Brennan, M., Donohue, I.
- 16:15     **R10-02**     **Multi index assessment of streams and associated uncertainties: application to macrophytes (#124)**  
Wiederkehr, J., Fabrègue, M., Fontan, B., Grac, C., Labat, F., Le Ber, F., Trémolières, M.
- 16:30     **R10-03**     **Impact of catchment land use, hydrology and morphology on metrics of macrophyte community composition. (#445)**  
Wynne, C., Donohue, I.
- 16:45     **R10-04**     **Long-term trends of water quality and metabolism in two contrasting streams (#201)**  
Arroita, M., Larrañaga, A., Elosegi, A.
- 17:00     **R10-05**     **Applying phytoplankton indices along the River Loire (France) (#200)**  
Leitao, M., Abonyi, A., Mischke, U., Borics, G., Varbiro, G.
- 17:15     **R10-06**     **Degree-days in fish science: An argument for the standardization of base temperatures. (#476)**  
Chezik, K., Lester, N., Venturelli, P.

POSTER SESSIONS

**P1 | Poster Session**

R01, R02, R03, R06, R07, R08, R10, SS01, SS02, SS04, SS06, SS07, SS08, SS09, SS10, SS12, SS14

Time: 17:30 – 18:30 | Room: Foyer

**R01 – Special biological aspects of freshwater organisms and communities**

Chairs: Schulz, Uwe H.; Fleituch, Tadeusz

- P1-01 ENVIRONMENTAL FACTORS STRUCTURING MACROPHYTE ASSEMBLAGES IN ALPINE LAKES (#459)**  
Fernández-Aláez, C., Núñez, G., Trigo, C., Fernández-Aláez, M.
- P1-02 High resolution dynamics of *Planktothrix rubescens* in Lake Ledro (eastern Italian Alps) in relation to environmental conditions (#167)**  
Boscaini, A., Cerasino, L., Tolotti, M., Salmasso, N.
- P1-03 Catastrophic shift regime of phytoplankton to *Pseudanabaena Limnothrix Planktothrix* dominated state in the shallow eutrophic lake Nero (Russia) (#147)**  
Sidelev, S., Babanazarova, O.
- P1-04 Seasonal composition and population density of zooplankton in Karaboğaz Lake from Kızılırmak Delta (Samsun, Turkey) (#52)**  
Saygi, Y., Gündüz, E., Demirkalp, F.Y., Çağlar, S. S., Atasagun, S., Kılınc, S.
- P1-05 The Investigation of the Rotifera Species in the Saline and Freshwater Lakes in Central Anatolia (#372)**  
Maleki, R., Emir Akbulut, N.
- P1-06 Growth characteristics of the *Neogobius melanostomus* (Gobiidae, Pisces) (Pallas, 1814) in the Karaboğaz Lake (Samsun, Turkey) (#64)**  
Tunçer, S., Demirkalp, F.Y.
- P1-07 Morphometric Characteristics and Length-Weight Relationship for *Gobio sakaryaensis* (Teleostei: Cyprinidae) from Çamkoru Pond (Ankara-Turkey) (#395)**  
Innal, D., Erk'akan, F.
- P1-08 Growth features of bitterling, *Rhodeus amarus* from small streams, which flow into a large reservoir (Darlık Reservoir, NW Turkey) (#248)**  
Gaygusuz, Ö., Temel, M.
- P1-09 Is catastrophic drift that catastrophic for Chironomidae (Diptera-Insecta)? (#575)**  
Klein, G., Schulz, U. H.
- P1-10 Effects of phosphorus content in detritus on life-history traits, behavior and physiology of a headwater stream detritivore (#576)**  
Crenier, C., Arce Funck, J., Felten, V., Devin, S., Herbele, J., Danger, M.
- P1-11 Long-term monitoring of fungi and invertebrates of a dendrotelmata (#622)**  
Vass, M., Magyar, D.

**R02 – Phylogeny, molecular biodiversity and biogeography**

Chair: Pauls, Steffen

- P1-12 Is intraspecific diversity of aquatic hyphomycetes on decomposing leaves in streams related to season? (#385)**  
Batista, D., Pascoal, C., Cássio, F., Duarte, S.
- P1-13 The long overlooked impact of Parathetys regression on present-day diversity in freshwaters. Case study of *Gammarus balcanicus* (Crustacea Amphipoda). (#616)**  
Mamos, T., Grabowski, M., Wattier, R.
- P1-14 Genetic diversity and connectivity of *Gammarus fossarum* in a German low-mountain range (#287)**  
Weiss, M., Leese, F.
- P1-15 A small-scale population genetics of aquatic invertebrates in alpine lakes (Tatra Mts, Slovakia): “the Agabus case” (#330)**  
Čiamporová-Zaťovičová, Z., Čiampor Jr., F.
- P1-16 Development of Microsatellites for Population Genetic Study of *Heterotrissocladius marcidus* (Diptera: Chironomidae) in Alpine Lakes (#394)**  
Goffová, K., Kohout, J., Čiampor Jr., F., Čiamporová-Zaťovičová, Z.
- P1-17 Global diversity of the mayfly family Prosopistomatidae (Insecta, Ephemeroptera), explained in terms of historical biogeography. (#61)**  
Barber-James, H.
- P1-18 Phylogeny of South American Larinae (Coleoptera: Elmidae) – searching for the origin (#397)**  
Laššová, K., Čiampor Jr., F., Čiamporová-Zaťovičová, Z.
- P1-19 Molecular Systematic Investigation of The Freshwater Gastropod genus *Graecoanatica* (Gastropoda: Hydrobiidae) in West Anatolia (#322)**  
Dukel, M., Mutlu, A. G.
- P1-20 New DNA barcodes for 8 aquatic hyphomycete species (#464)**  
Pascoal, C., Batista, D., Cássio, F., Duarte, S.
- P1-21 Discrimination of four *Simocephalus* species from central Europe using PCR-RFLP technique (#181)**  
Illyová, M., Kohout, J., Čiampor Jr., F., Čiamporová-Zaťovičová, Z.

- P1-22**                    **Stoichio-Metagenomics of ocean waters: a molecular evolution approach to trace the dynamics of nitrogen thrift in natural communities** (#610)  
Dittberner, H., Ohlmann, N., Acquisti, C.
- P1-23**                    **Universal microarrays for the evaluation of fresh-water quality based on detection of pathogens and their toxins** (#607)  
Akcaalan, R., Köker, L., Sağlam, O., Albay, M.

**R03 – General aspects of freshwater ecosystems**

Chairs: Rîsnoveanu, Geta; Moss, Brian

- P1-24**                    **Nitrogen and carbon content and nitrogen uptake of attached algae at different depth of Lake Balaton** (#206)  
Présing, M., Kenesi, G., Horváth, H., Kovács, A. W.
- P1-25**                    **Influence of mathematical transformation on ecological analysis and interpretation of lake macrophyte distribution along a depth gradient.** (#425)  
Lombardo, P., Bolpagni, R., Azzella, M. M., Mjelde, M.
- P1-26**                    **Environmental factors influence phytoplankton communities in mediterranean reservoirs (Catalonia, Spain)** (#250)  
Moschini-Carlos, V., Pompêo, M., Nishimura, P., Armengol, J.
- P1-27**                    **A survey on the alpine lakes of Vercenik Mountain (Rize/Turkey): zooplankton of Yayla lakes** (#311)  
Yıldız, P., Altındağ, A., Buyurgan, Ö.
- P1-28**                    **DISTRIBUTION OF MODERN FRESHWATER OSTRACODS (CRUSTACEA) IN TANGRAYUMCO, CENTRAL TIBETAN PLATEAU** (#613)  
Akita, L. G., Frenzel, P., Börner, N., Peng, P.
- P1-29**                    **Organic carbon dynamics in the hyporheic zone of a small lowland stream** (#532)  
Rulík, M.
- P1-30**                    **Ecological contrast of spring fens for caddisflies: changes in specialists/generalists ratio along the mineral richness gradient** (#486)  
Hubáčková, L., Horsák, M., Bojková, J., Syrovátka, V., Křoupalová, V., Rádková, V.
- P1-31**                    **Allochthonous detritus support Danish forested stream food webs – a stable isotope study** (#590)  
Kristensen, P.
- P1-32**                    **Freshwater Gastropoda Fauna of the Province Antalya and Effects of Habitat Disturbance on Distribution of Fauna.** (#431)  
Caglan, D. C., Yildirim, M. Z.

**R06 – Biofilms and microbial processes**

Chair: Dahm, Clifford N.

- P1-33**                    **Centuries of buried microbes - preservation and degradation of organic matter in lake sediments** (#508)  
Wurzbacher, C., Fuchs, A., Frindte, K., Attermeyer, K., Allgaier, M., Hupfer, M., Grossart, H. - P., Casper, P., Monaghan, M. T.

**R07 – Biogeochemistry**

Chair: Dahm, Clifford N.

- P1-34**                    **Impact of electron donor and acceptor availability on mineralization of peat from a Canadian bog** (#443)  
Burger, M.
- P1-35**                    **Impact of temperature, pH-value and peat quality on anaerobic carbon dioxide production and methanogenesis in peat from a Canadian bog** (#442)  
Goebel, M.
- P1-36**                    **Comparative Study of Nutrient Release from Sediment of the Küçükçekmece Lagoon under Field and Laboratory Conditions** (#379)  
Gürevin, C., Erturk, A., Albay, M.
- P1-37**                    **Trace metals in a reservoir for public water supply (São Paulo State, Brazil): paleolimnological study** (#323)  
Cardoso-Silva, S., Pompêo, M.

**R08 – Global change: extreme events and long-term trends**

Chair: Hildrew, Alan

- P1-38**                    **Long-term trends of invertebrate communities under changing environmental conditions** (#157)  
Prieto Montes, M., Ferréol, M., van Looy, K.
- P1-39**                    **CH<sub>4</sub> emissions from sediments in shallow lakes: the importance of carbon source (phytoplankton, macrophyte or terrestrial) and temperature** (#611)  
Kosten, S., Hilt, S., Attermeyer, K., Brothers, S., Grossart, H. P., Casper, P.
- P1-40**                    **Effect of climate on annual net production of the aquatic moss species Drepanocladus trifarius growing in a High-Arctic lake in Greenland** (#606)  
Christoffersen, K. S., Riis, T., Baattrup-Pedersen, A.

**R10 – Viability and ecological significance of datasets**

Chairs: Schulz, Uwe H.; Fleituch, Tadeusz

- P1-41 **A preliminary assessment of fish guilds as indicators of ecological quality in northern Portuguese rivers** (#433)  
Pereira, V., Jane Hughes, S., Varandas, S., Cortes, R.

**SS01 – Ecological and taxonomic classification of freshwater biota: complementary or alternative tools to investigate freshwater biodiversity patterns?**

Chair: Padišák, Judit

- P1-42 **Ecological classifications vs. taxonomic approach in the evaluation of flood-induced phytoplankton changes in a river-floodplain ecosystem** (#417)  
Stević, E., Mihaljević, M., Špoljarić, D., Žuna Pfeiffer, T., Plenković-Moraj, A.
- P1-43 **Morpho-functional Classifications of Phytoplankton in Deep Karstic Lakes** (#484)  
Žutinić, P., Gligora Udovič, M., Kralj Borojević, K., Plenkovic-Moraj, A.
- P1-44 **Co-occurrence of functional groups in phytoplankton assemblages dominated by diatoms and chrysophytes** (#392)  
Gligora Udovič, M., Žutinić, P., Kralj Borojević, K., Stanković, I., Plenković-Moraj, A.
- P1-45 **Diagnostic techniques for rapid molecular identification of aquatic animals** (#400)  
Čiampor Jr, F., Čiamporová-Zaťovičová, Z., Čejka, T., Laššová, K., Pekárik, L., Kohout, J.

**SS02 – Symbiotic and parasitic interaction in aquatic organisms: Gain or pain?**

Chair: Grossart, Hans-Peter

- P1-46 ***In vitro* leukocytes responses of three-spined sticklebacks (*Gasterosteus aculeatus*) to helminth parasite antigens** (#233)  
Franke, F., Rahn, A., Dittmar, J., Erin, N., Rieger, J., Haase, D., Samonte-Padilla, I., Lange, J., Jakobsen, P. J., Prieto, M. H., López, J. C. F., Kurtz, J., Bakker, T. C. M., Reusch, T. B. H., Kalbe, M., Scharsack, J. P.
- P1-47 **Impact of elevated temperature on the gene expression of three-spined sticklebacks (*Gasterosteus aculeatus*) parasitized by the cestode *Schistocephalus solidus*** (#627)  
Schmidt, A. M., Kurtz, J., Meyer, E. I., Scharsack, J. P.

**SS04 – Biodiversity and functional processes in high alpine river ecosystems**

Chairs: Řisnoveanu, Geta; Moss, Brian

- P1-48 **SPATIAL AND TEMPORAL VARIATIONS IN CHIRONOMID ASSEMBLAGES IN GLACIATED CATCHMENTS (NP HOHETAUERN, AUSTRIA)** (#605)  
Niedrist, G., Füreder, L.

**SS06 – Integrating temporary rivers into river ecology and management**

Chairs: Tockner, Klemens; Datry, Thibault

- P1-49 **From perennial to temporary streams: climate change as a driving force in communities' traits?** (#162)  
Calapez, A. R., Elias, C. L., Almeida, S. F. P., Feio, M. J.
- P1-50 **Can summer drought affect leaf decomposition when the water flow returns to the stream?** (#198)  
Mora-Gómez, J., Romani, A. M., Boix, D., Duarte, S., Cássio, F., Pascoal, C.
- P1-51 **Response of macroinvertebrate fauna to perturbation by drought in Mediterranean stream ecosystems** (#298)  
Karaouzas, I., Skoulikidis, N., Gritzalis, K.
- P1-52 **Biological quality elements and temporary Greek streams and rivers.** (#526)  
Gritzalis, K., Georgopoulos, N., Anastasopoulou, E., Karaouzas, I., Skoulikidis, N.
- P1-53 **Effects of hydrology on the relationships between biological traits of macroinvertebrates assemblages and environmental characteristics in undisturbed Mediterranean streams** (#612)  
del Mar Sánchez-Montoya, M., Mellado, A., González, C., Gómez, R., Vidal-Abarca, M. R., Suárez, M. L.

**SS07 – Advances in ecohydrological research at surface-groundwater interfaces**

Chair: Larned, Scott

- P1-54 **Microbial processes across the dry-wet hyporheic boundary in a Mediterranean river** (#350)  
Ann, V., Freixa, A., Guarch, A., Ejarque, E., Butturini, A., Romani, A. M.
- P1-55 **Microcrustacean (Copepoda, Ostracoda) assemblages in the alpine karstic aquifer and the origin of carbon estimated by stable isotopes** (#457)  
Mori, N., Kanduč, T., Opalički, M., Brancelj, A.
- P1-56 **Groundwater fauna in the Baumberge springs, central Münsterland, NW Germany** (#98)  
Weckwert, N., Römer, M., Strauss, H., Göbel, P.
- P1-57 **Hyporheic deficits call for river bank conservation in the Kharaa catchment (Mongolia)** (#451)  
Schaeffer, M., Hartwig, M., Theuring, P., Avlyush, S., Rode, M., Borchardt, D.

**SS08 – Organic carbon and nutrient dynamics in freshwaters under global change**

Chair: Dahm, Clifford N.

- P1-58**                    **Recent trends in organic carbon concentrations in Swiss lakes** (#135)  
Rodríguez-Murillo, J. C., Filella, M.
- P1-59**                    **Severe low flow periods reduce the heterotrophic processes in alluvial floodplain.** (#423)  
Dehédin, A., Piscart, C., Marmonier, P.

**SS09 – Salinisation of running waters**

Chair: Grossart; Hans-Peter

- P1-60**                    **Impact of salinisation of surface waters caused by irrigation and diversion of drainage waters on fisheries in Amudarya and Syrdarya Rivers basins, Central Asia** (#356)  
Matthies, M., Karimov, B.

**SS10 – Using ecological principles to assess xenobiotic effects on freshwater communities and ecosystem functions**

Chair: Grossart, Hans-Peter

- P1-61**                    **Microcosms to assess the protectiveness of chemical quality standards** (#568)  
Hommen, U., Schäfers, C., Rüdell, H., Knopf, B., Schlekat, C., Rogevich, E. C.
- P1-62**                    **A model ecosystem approach to assess the effects of copper slag armourstones on a freshwater community** (#573)  
Schäfers, C., Knopf, B., Rüdell, H., Ebke, K.-P., Hommen, U.

**SS12 – LIFE for freshwater ecosystems: challenges and achievements of an EU funding instrument**

Chair: Schimmer, Hans

- P1-63**                    **Light gaps for dragonflies - Monitoring of restoration measures in the LIFE-project „Bachtäler im Arnsberger Wald“, North Rhine-Westphalia, Germany** (#265)  
 Joest, R., Beckers, B., Wrede, J.
- P1-64**                    **LIFE11 NAT/LU/857 „Restoration of *Unio crassus* rivers in the Luxemburgish Ardennes“ 2012-2018: a summary description of the project.** (#277)  
Heumann, S., Arendt, A., Thielen, F., Klein, L., Muller, T.
- P1-65**                    **Ex-situ breeding of native unionids of lake Banyoles (Catalonia), in the context of a LIFE+ Project** (#384)  
 Campos, M., Feo, C., Pou-Rovira, Q., Araujo, R.

**SS14 – Societal concerns and capacity development**

Chair: Schimmer, Hans

- P1-66**                    **Potential of the concept of ecosystem services for surface water policy in the context of the European Water Framework Directive (WFD)** (#490)  
van Leeuwen, N., van der Grinten, E., Kraak, M., Verweij, W.
- P1-67**                    **Community engagement on the environmental use of the River Crane, a tributary of the River Thames following a major pollution incident.** (#56)  
Leonard, P.

Thursday July 4, 2013						
	Europasaal			Pavillon I	Pavillon III	Foyer + Lobby
	Salon 1	Salon 2	Salon 3			
08:30–09:00						
09:00–09:15	Brose, U. - Plenary 5					
09:15–10:00	Lee, C. E. - Plenary 6					
10:00–10:45	Morning Break					
10:45–11:00	SS03-01. Tockner, K.	R09-01. Villeneuve, B.	SS13-01. Mooij, W. M	SS12-21. Caffrey, J. M.	R12-01. Heege, T.	
11:00–11:15	SS03-02. de Weber, A.	R09-02. Gutowski, A.	SS13-02. Kuiper, J. J.	SS12-22. Arendt, A.	R12-02. Steitzer, K.	
11:15–11:30	SS03-03. Bremerich, V.	R09-03. Cortes, R.	SS13-03. Schuwirth, N.	SS12-23. Bunzel-Drüke, M.	R12-03. Winterscheid, A.	
11:30–11:45	SS03-04. Brosse, S.	R09-04. Šiliņš, R.	SS13-04. Gal, G.	SS12-24. Zimball, O.	R12-04. Lalande, N.	
11:45–12:00	SS03-05. Schmidt-Kloiber, A.	R09-05. Sossey, A. K.	SS13-05. Bocaniov, S.	SS12-25. Altemüller, M.	R12-05. Peters, S.	
12:00–12:15	SS03-06. Feld, C. K.	R09-06. Young, R.	SS13-06. Moreira, S.	SS12-26. Chapman, P.	R12-06. Azzella, M. M.	
12:15–12:30	SS03-07. Darwall, W.	R09-07. Chorus, I.	SS13-07. Petzoldt, T.	SS12-27. Gimmler, V.	R12-07. Snell, M.	
12:30–12:45	SS03-08. Cid Puey, N.	R09-08. Moldoveanu, M.	SS13-08. Frassi, M. A.	SS12-28. –	R12-08. Lewandowski, J.	
12:45–14:00	Lunch					
14:00–14:15	R04-01. Janse, J. H.	R09-09. Hughes, S. J.	SS13-09. Alric, B.	SS12-29. Konradi, C.	R13-01. Keenan, E.	Posters & Exhibition
14:15–14:30	R04-02. Ovalle, H.	R09-10. Mostafavi, H.	SS13-10. Lischke, B.	SS12-30. Raderbauer, H.-J.	R13-02. Norf, H.	
14:30–14:45	R04-03. Richardson, J.	R09-11. Frisk, T.	SS13-11. van Gerven, L.	SS12-31. Lambert, E.	R13-03. Winkelmann, C.	
14:45–15:00	R04-04. Bonada, N.	R09-12. Karasek, T.	SS13-12. Kattwinkel, M.	SS12-32. Mols, J.	R13-04. Schmidt-Formann, O.	
15:00–15:15	R04-05. Schmera, D.	R09-13. Leunert, F.	SS13-13. Gabsi, F.	SS12-33. Bolpagni, R.	R13-05. Riss, H. W.	
15:15–15:30	R04-06. Hladyz, S.	R09-14. Koperski, P.	SS13-14. Ibrahim, L.	SS12-34. Maire, A.	R13-06. Toussaint, A.	
15:30–16:00	Afternoon Break					
16:00–16:15	R04-07. Rádková, V.	R11-01. Linke, S.	SS13-15. Wolter, C.	R05-01. Boggio, E.	R14-01. Zeis, B	
16:15–16:30	R04-08. Camacho, A.	R11-02. Langhans, S.	SS13-16. Guse, B.	R05-02. Hette-Tronquart, N.	R14-02. Lukas, M.	
16:30–16:45	R04-09. Blank, S.	R11-03. Hermoso, V.	SS13-17. Kail, J.	R05-03. Sampson, A.	R14-03. Grzesiuk, M.	
16:45–17:00	R04-10. Frainer, A.	R11-04. Kleinwächter, M.	SS13-18. Radinger, J.	R05-04. Jenkins, G. B.	R14-04. Hupato, K.	
17:00–17:15	R04-11. Obertegger, U.	R11-05. Pander, J.	SS13-19. Schröder, M.	R05-05. Piscia, R.	R14-05. Rasmussen, J.	
17:15–17:30	R04-12. Kamenir, Y.	R11-06. Ilg, C.		R05-06. McKie, B.	R14-06. Maiolini, B.	
17:30–18:30						Poster Session (P2) R04, R05, R09, R11, R12, R13, R14, SS03, SS13
18:30–19:30				EFYR Meeting		
20:00–23:00				Dinner		

## MORNING SESSIONS

**SS03 | Biodiversity of Freshwater Ecosystems: Status, Trends, Pressures, and Conservation Priorities****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Salon 1****Chairs: Tockner, K.; Hering, D.; Freyhof, J.**

- 10:45 **SS03-01 European Freshwater Biodiversity: Trends, Pressures, and Conservation Priorities (#320)**  
Tockner, K.
- 11:00 **SS03-02 Biodiversity data publishing in freshwater sciences (#225)**  
de Wever, A., Schmidt-Kloiber, A.
- 11:15 **SS03-03 The Global Freshwater Biodiversity Atlas – towards a unifying online infrastructure for freshwater biodiversity policy and research (#550)**  
Bremerich, V., Schmidt-Kloiber, A., Freyhof, J.
- 11:30 **SS03-04 Fish-SPRICH, an open access database of freshwater fish species richness across the World: recent achievements and future directions (#29)**  
Brosse, S., Beauchard, O., Blanchet, S., Durr, H. H., Grenouillet, G., Hugueny, B., Lauzeral, C., Leprieur, F., Tedesco, P. A., Villeger, S., Oberdorff, T.
- 11:45 **SS03-05 A European database on caddisflies (Trichoptera) (#117)**  
Schmidt-Kloiber, A., Graf, W., Neu, P.
- 12:00 **SS03-06 Freshwater biodiversity response to multiple stressors: a comparison of patterns in lakes, rivers, wetlands and groundwater ecosystems (#91)**  
Feld, C. K., Birk, S., Eme, D., Gerisch, M., Kernan, M., Malard, F., Pletterbauer, F., Salgado Bonnet, J., Stendera, S., Hering, D.
- 12:15 **SS03-07 Identification of Key Biodiversity Areas in freshwater ecosystems: a case study on the application of biodiversity data in the Balkans. (#69)**  
Darwall, W., Carrizo, S.
- 12:30 **SS03-08 When biodiversity is a pressure: combining BioFresh and the European Alien Species Information Network (EASIN) to evaluate Freshwater Biodiversity in Europe (#409)**  
Cid Puey, N., Cardoso, A. C., Katsanevakis, S., Nunes, A. L., Bogucarskis, K., Deriu, I., de Wever, A., Brosse, S., Darwall, W.

**R09 | Ecological quality assessment (Part I)****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Salon 2****Chairs: Young, R.; Morabito, G.; Albay, M.**

- 10:45 **R09-01 Extrapolation and diagnostics models: how to predict ecological status of unsurveyed water bodies of European rivers. (#221)**  
Villeneuve, B., Valette, L., Ferréol, M., Souchon, Y.
- 11:00 **R09-02 Using benthic algae (excl. diatoms and Charophyceae) for assessing the ecological status of running waters in Germany (#246)**  
Gutowski, A., Foerster, J., Schaumburg, J., Schranz, C.
- 11:15 **R09-03 Biomarkers and bio-indicators: combining the best of two worlds in river quality assessment (#86)**  
Cortes, R., Hughes, S. J., Varandas, S., Pereira, V., Pereira, S., Coimbra, A., Monteiro, M., Pinto, A., Jesus, J.
- 11:30 **R09-04 Evaluation of limnological characteristics of lagoon type birdlake Engure, Latvia (#76)**  
Šiliņš, R., Druvietis, I., Poppels, A.
- 11:45 **R09-05 Macrophytes: limitations of using them to assess reservoir status according to the Water Framework Directive (#314)**  
Sossey, A. K., Rosillon, F.
- 12:00 **R09-06 Greater temporal variability in stream metabolism indicates land-use disturbance (#41)**  
Young, R., Clapcott, J., Neale, M., Doehring, K.
- 12:15 **R09-07 Thresholds for recovery from cyanobacterial blooms (#595)**  
Chorus, I.
- 12:30 **R09-08 Efficiency of the monitoring indicators in assessing the ecological state of water bodies: river basins Arges and Vedea (Romania) (#542)**  
Moldoveanu, M., Risnoveanu, G.

**SS13 | Models of Freshwater Ecosystems: advances, challenges and new applications (Part I)****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Salon 3****Chairs: Mooij, W.; Kattwinkel, M.; Kail, J.; Kuemmerlen, M.; Schuwirth, N.; Petzoldt, T.; Frassl, M.**

- 10:45 **SS13-01** **Serving many at once: how a database of components and processes can create generality in ecosystem modeling** (#396)  
Mooij, W. M., Brederveld, B., de Klein, J. J. M., Faber, M., Janssen, A. B. G., Kuiper, J. J., Lischke, B., Schep, S., van Gerven, L., Janse, J. H.
- 11:00 **SS13-02** **Energetic organization, food web stability and critical transitions in the ecosystem model PCLake** (#444)  
Kuiper, J. J., van Altena, C., van Gerven, L., de Klein, J. J. M., Janse, J. H., Mooij, W. M.
- 11:15 **SS13-03** **Streambugs: A mechanistic model for the community composition of macroinvertebrates in streams** (#126)  
Schuwirth, N., Dietzel, A., Reichert, P.
- 11:30 **SS13-04** **Assessing the impact of parameter uncertainty on lake management scenario results** (#46)  
Gal, G., Makler-Pick, V., Shachar, N.
- 11:45 **SS13-05** **Modelling the impact of invasive dreissenid mussels in a large lake (Lake Erie, USA-Canada)** (#220)  
Bocaniov, S., Spillman, C., Hipsey, M., Smith, R.
- 12:00 **SS13-06** **Analysis of lake response to reduction of nitrogen loads according to trophic state and sediment storage capacity** (#474)  
Moreira, S., Sachse, R., Petzoldt, T., Grüneberg, B., Nixdorf, B.
- 12:15 **SS13-07** **Hydrophysics, plankton, macrophytes: coupling of models helps to understand regime shifts in lakes** (#263)  
Petzoldt, T., Sachse, R., Rolinski, S., Moreira Martinez, S., Pätzig, M., Rücker, J., Hilt, S.
- 12:30 **SS13-08** **More than the mean: Studying climate effects on a lake ecosystem with a statistical weather generator** (#552)  
Frassl, M. A., Schlabing, D., Eder, M. M., Rothhaupt, K. - O., Rinke, K.

**SS12 | LIFE for freshwater ecosystems: challenges and achievements of an EU funding instrument (Part IV)****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Pavillon I****Chairs: Klingenstein, F.; Brauner, R.; Beck, P.; Sommerhäuser, M.M.**

- 10:45 **SS12-21** **Control of Aquatic Invasive Species and Restoration of Natural Communities in Ireland (CAISIE)** (#495)  
Caffrey, J. M., Millane, M.
- 11:00 **SS12-22** **How to restore efficiently the habitat of the pearl mussel *Margaritifera margaritifera* and the thick shelled river mussel *Unio crassus* - Lessons learned by LIFE** (#274)  
Arendt, A., Thielen, F., Heumann, S., Klein, L.
- 11:15 **SS12-23** **Floodplain restoration from the fish perspective: Efficiency control at the river Lippe** (#215)  
Bunzel-Drüke, M., Zimball, O., Scharf, M.
- 11:30 **SS12-24** **The way around the obstacle: How fish species make use of new fish passes** (#216)  
Zimball, O., Bunzel-Drüke, M., Scharf, M.
- 11:45 **SS12-25** **LIFE BaltCoast - Experiences of an international project** (#446)  
Altemüller, M., Drews, H.
- 12:00 **SS12-26** **Maintaining Quality Urban Environments for River Corridor Users and Stakeholders. The EU LIFE's QUERCUS project results in transforming an inner city river corridor park by applying the principles of designing out crime.** (#80)  
Chapman, P., Cooper, S.
- 12:15 **SS12-27** **ERCIP - European River Corridor Improvement Plans - a joint agency approach to managing river corridors.** (#81)  
Gimmler, V., Chapman, P.

**R12 | Novel tools and methods****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Pavillon III****Chair: Heege, T.**

- 10:45    **R12-01**    **Operational Pan European Freshwater Monitoring using Earth Observation Technologies (#594)**  
Heege, T., Schenk, K., Knut, H.
- 11:00    **R12-02**    **Applications of Remote Sensing for Freshwater – an Overview (#471)**  
Stelzer, K., Geissler, J.
- 11:15    **R12-03**    **Use of satellite images for monitoring river systems (#547)**  
Winterscheid, A., König, F.
- 11:30    **R12-04**    **Feedbacks on data collection, data modeling and data integration of large datasets: application to Rhine-Meuse and Rhone-Mediterranean districts (France). (#472)**  
Lalande, N., Berrahou, L., Molla, G., Serrano, E., Boullil, K., Cernesson, F., Grac, C., Hermann, A., Le Ber, F., Teisseire, M., Trémolières, M.
- 11:45    **R12-05**    **Monitoring the ecological status of Lake IJssel using close range spectrometer (WISP-3) and remote sensing (MERIS) (#515)**  
Peters, S., Hommersom, A., Ghebrehiwot, S., Poser, K., de Reus, N., Laanen, M.
- 12:00    **R12-06**    **Aquatic macrophyte diversity assessment: validation of a new sampling method for circular-shaped lakes. (#367)**  
Azzella, M. M., Ricotta, C., Blasi, C.
- 12:15    **R12-07**    **Assessing the contribution of in-situ fluorometry to understanding headwater periphyton structure and function. (#269)**  
Snell, M., Barker, P., Surridge, B., Large, A.
- 12:30    **R12-08**    **Real-time acquisition of lacustrine groundwater discharge in Lake Arendsee (#22)**  
Lewandowski, J., Meinikmann, K., Pöschke, F., Ruthz, T., Kirillin, G.

**AFTERNOON SESSIONS****R04 | Structural and functional biodiversity (Part I)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Salon 1****Chairs: Camacho, A.; Richardson, J.S.**

- 14:00    **R04-01**    **Towards a global picture of aquatic biodiversity by the integration of meta-analyses of biodiversity data into a land-use and climate model (#170)**  
Janse, J. H., Jeuken, M., Kuiper, J. J., Beusen, A., Alkemade, R., Verhoeven, J., Mooij, W. M.
- 14:15    **R04-02**    **Biodiversity of South American lowland streams - natural scenery and anthropogenic facts (#598)**  
Ovalle, H., Plata, Y., Reyes, F., Pimienta, A., Riss, H. W.
- 14:30    **R04-03**    **Effects of riparian forest harvest on streams: a meta-analysis (#42)**  
Richardson, J., Beraud, S.
- 14:45    **R04-04**    **The macroinvertebrate river of life: understanding species richness and trait variability through evolutionary history (#351)**  
Bonada, N., Múrria, C., Vogler, A. P., Papadopoulou, A., Dolédec, S.
- 15:00    **R04-05**    **Functional richness is more sensitive to human impact than functional redundancy of stream invertebrates (#271)**  
Schmera, D., Baur, B., Erős, T.
- 15:15    **R04-06**    **Influence of flow regime on invertebrate community structure in managed rivers (#26)**  
Hladyz, S., Grace, M., Kopf, R., Watts, R., Thompson, R.

**R09 | Ecological quality assessment (Part II)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Salon 2****Chairs: Young, R.; Morabito, G.; Albay, M.**

- 14:00 **R09-09 Preliminary Assessment of Chironomid Pupal Exuviae (Diptera: Nematocera) as Bioindicators in the Rivers of northern Portugal (#403)**  
Hughes, S. J., Oliveira, B., Cortes, R.
- 14:15 **R09-10 Development of a preliminary fish-based Index of Biotic Integrity (IBI) for coldwater streams of selected ecoregions in Iran (#289)**  
Mostafavi, H., Schinegger, R., Melcher, A., Trautwein, C., Pletterbauer, F., Schmutz, S.
- 14:30 **R09-11 Climate change and the implementation of the EU Water Framework Directive (#113)**  
Frisk, T.
- 14:45 **R09-12 It is not necessary to kill invertebrates for bioassessment: NOMBSI – a new method of benthos sampling and identification (#166)**  
Karasek, T., Koperski, P.
- 15:00 **R09-13 Delayed Fluorescence: a rapid and sensitive tool to investigate adverse effects on algae (#440)**  
Leunert, E., Paul, A., Eckert, W., Grossart, H. - P.
- 15:15 **R09-14 Taxonomic structure and diversity are determined mostly by the geographical parameters not by an „environmental quality“ - something is wrong with the assumptions of STAR/AQEM procedure (#169)**  
Koperski, P.

**SS13 | Models of Freshwater Ecosystems: advances, challenges and new applications (Part II)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Salon 3****Chairs: Mooij, W.; Kattwinkel, M.; Kail, J.; Kuemmerlen, M.; Schuwirth, N.; Petzoldt, T.; Frassl, M.**

- 14:00 **SS13-09 Combining paleolimnology and modelling to study the effect of local forcings on lake food webs vulnerability and response to climate warming (#567)**  
Alric, B., Arnaud, F., Berthon, V., Jenny, J. - P., Reyss, J. - L., Perga, M. - E.
- 14:15 **SS13-10 Enhanced input of allochthonous matter reduces the resilience of the clear state of shallow lakes - a model study (#214)**  
Lischke, B., Hilt, S., Janse, J. H., Kuiper, J. J., Mehner, T., Mooij, W. M., Gaedke, U.
- 14:30 **SS13-11 Modelling resource competition between water plants: the importance of light over nutrients (#354)**  
van Gerven, L., Mooij, W. M., de Klein, J. J. M., Kuiper, J. J., Janse, J. H.
- 14:45 **SS13-12 Modelling macroinvertebrate communities under toxicant stress (#358)**  
Kattwinkel, M., Reichert, P.
- 15:00 **SS13-13 Using mechanistic effect modelling for capturing individual-level effects of chemical stress and assessing their risk on populations in *Daphnia magna* (#534)**  
Gabsi, E., Hammers-Wirtz, M., Grimm, V., Schäffer, A., Preuss, T. G.
- 15:15 **SS13-14 Population modelling for an ecologically more relevant pesticide risk assessment for fish (#536)**  
Ibrahim, L., Preuss, T. G., Schaeffer, A., Schaeffers, C., Hommen, U.

**SS12 | LIFE for freshwater ecosystems: challenges and achievements of an EU funding instrument (Part V)****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Pavillon I****Chairs: Klingenstein, F.; Brauner, R.; Beck, P.; Sommerhäuser, M.M.**

- 14:00 **SS12-29 LIFE+ „murerleben“ (#448)**  
Konradi, C., Raderbauer, H. - J.
- 14:15 **SS12-30 LIFE+ Flusslandschaft Enns (#449)**  
Raderbauer, H. - J., Konradi, C.
- 14:30 **SS12-31 The river contract: a consultation platform in Wallonia (Belgium) for integrated river management (#399)**  
Lambert, E., Mols, J.
- 14:45 **SS12-32 The river restoration of the “Geer”, a river of the Belgian loess belt (#548)**  
Mols, J.
- 15:00 **SS12-33 The importance of being natural: Role of wetland type on the maintenance of riverine vegetation (#556)**  
Bolpagni, R., Piotti, A.
- 15:15 **SS12-34 Development of a multi-faceted framework of diversity for the selection of priority areas for the conservation of stream fish assemblages. (#38)**  
Maire, A., Buisson, L., Laffaille, P.

**R13 | Invasive species****Type: Oral Presentation | Time: 14:00 – 15:30 | Room: Pavillon III****Chair: Weitere, M.**

- 14:00 **R13-01** Responses of epiphytic macroinvertebrates to changes in submerged macrophyte communities following the invasion of African oxygen weed *Lagarosiphon major* (#557)  
Keenan, E., Baars, J. - R., O' Callaghan, P., Caffrey, J. M.
- 14:15 **R13-02** What regulates different successes of the Asian freshwater clam *Corbicula fluminea* in Central European rivers? A case study from the Rivers Rhine and Elbe. (#310)  
Norf, H., Becker, G., Fink, P., Parlow, L., Weitere, M.
- 14:30 **R13-03** Effects of *Dikerogammarus villosus* on a River food web (#121)  
Winkelmann, C., Worischka, S., Becker, J., Hellmann, C.
- 14:45 **R13-04** Limiting factors for the distribution of the invasive *Echinogammarus berilloni* (Amphipoda) Catta, 1878 in a Central European catchment (#241)  
Schmidt-Formann, O., Riss, H. W., Meyer, E. I.
- 15:00 **R13-05** Who budges loses – the lazy invader amphipod *Echinogammarus berilloni* (#599)  
Riss, H. W., Meyer, E. I.
- 15:15 **R13-06** Historical assemblage distinctiveness and the introduction of widespread non-native species explain worldwide change in freshwater fish taxonomic dissimilarity (#18)  
Toussaint, A., Beauchard, O., Oberdorff, T., Brosse, S., Villéger, S.

**R04 | Structural and functional biodiversity (Part II)****Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Salon 1****Chairs: Camacho, A.; Richardson, J.S.**

- 16:00 **R04-07** Small-scale diversity patterns of aquatic macroinvertebrates in spring fens: the importance of species replacement and richness differences in various taxonomic groups (#252)  
Rádková, V., Kroupalová, V., Bojková, J., Schenková, J., Syrovátka, V., Horsák, M.
- 16:15 **R04-08** Patterns of inorganic carbon assimilation in the model Lake La Cruz: Isotopic <sup>14</sup>C vs active fluorescence methods. (#505)  
Camacho, A., Rochera, C., Miracle, M. R., Vicente, E., Picazo, A.
- 16:30 **R04-09** Characterization of microbial biodiversity in the pelagic zone of alpine lakes using high throughput sequencing (#316)  
Blank, S., Deng, L., Johannes, P., Niklas, N., Kurmayer, R.
- 16:45 **R04-10** No evidence for functional litter diversity effects on decomposition, fungal decomposers and nutrient dynamics (#539)  
Frainer, A., S. Moretti, M., Xu, W., Gessner, M. O.
- 17:00 **R04-11** Functional diversity of rotifers, new insights into community assembly (#292)  
Obertegger, U., Flaim, G.
- 17:15 **R04-12** Disturbance of Small-Celled Phytoplankton in Lake Kinneret (#93)  
Kamenir, Y., Dubinsky, Z.

**R11 | Restoration, conservation, sustainability (Part I)****Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Salon 2****Chairs: Cecchi, P.; Geist, J.**

- 16:00 **R11-01** Operationalising connectivity frameworks in freshwater conservation planning (#180)  
Linke, S., Bradford, L., Hermoso, V., Lehner, B.
- 16:15 **R11-02** Identifying optimal rehabilitation areas in river systems: an approach adapted from conservation planning (#107)  
Langhans, S., Hermoso, V., Linke, S., Bunn, S.
- 16:30 **R11-03** Rehabilitation planning for freshwater ecosystems: coping with multiple objectives in complex decision making scenarios (#256)  
Hermoso, V., Pantus, F., Olley, J. M., Linke, S., Mugodo, J., Lea, P.
- 16:45 **R11-04** Alternative river bank protections – an appropriate approach to improve river banks along waterways from an ecological point of view? (#441)  
Kleinwächter, M., Schilling, K.
- 17:00 **R11-05** Ecological functions of fish bypass channels in streams: Migration corridor and habitat for rheophilic species (#193)  
Pander, J., Mueller, M., Geist, J.
- 17:15 **R11-06** How can we conserve the threatened boreo-alpine species in alpine ponds faced with climate warming? (#467)  
Ilg, C., Crovadore, J., Angélibert, S., Bolliger, J., Finger-Stich, A., Frossard, P. - A., Julliard, C., Rosset, V., Lefort, F., Oertli, B.

**SS13 | Models of Freshwater Ecosystems: advances, challenges and new applications (Part III)****Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Salon 3****Chairs: Mooij, W.; Kattwinkel, M.; Kail, J.; Kuemmerlen, M.; Schuwirth, N.; Petzoldt, T.; Frassl, M.**

- 16:00 **SS13-15** **IMPACT – A modelling approach to assess the effect of pressures at different spatial scales on habitat conditions and river biota.** (#243)  
Wolter, C., Kail, J., Ben-Hamadou, R., Blanchet, S., Chicharo, L., Crosato, A., Fohrer, N., Grenouillet, G., Guse, B., Hering, D., Kiesel, J., Kleinhans, M., Paz-Vinas, I., Radinger, J., Pedro, R., Schröder, M., Schuurman, F.
- 16:15 **SS13-16** **Hydrological modelling for recent and future conditions to provide discharges as input of hydro-morphodynamic and habitat models** (#262)  
Guse, B., Kiesel, J., Kamugisha, S., Fohrer, N.
- 16:30 **SS13-17** **Modelling the effects of climate and land-use changes on the dynamics and ecological conditions of two river reaches** (#244)  
Kail, J., Schuurman, F., Crosato, A., Kleinhans, M.
- 16:45 **SS13-18** **Modelling the re-colonization potential of fish in a lowland sand-bed river** (#218)  
Radinger, J., Wolter, C., Kail, J.
- 17:00 **SS13-19** **The “Habitat Evaluation Tool” – A new habitat model to assess the presence and abundance of benthic invertebrates in rivers and its application in two contrasting river reaches** (#286)  
Schröder, M., Kiesel, J., Hering, D.

**R05 | Food web connections within and across habitats (Part I)****Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Pavillon I****Chairs: Winkelmann, C.; Kainz, M.**

- 16:00 **R05-01** **Estimating functional diversity of zooplankton taxa: comparison of C, N isotopic signatures of organisms along lake morpho-edaphic gradient.** (#240)  
Boggio, E., Bettinetti, R., Manca, M.
- 16:15 **R05-02** **Influence of riparian vegetation on temperate stream food web: seasonal variations along a shading gradient** (#211)  
Hette-Tronquart, N., Oberdorff, T., Belliard, J.
- 16:30 **R05-03** **A new carbon source within riverine food webs?** (#55)  
Sampson, A., Hildrew, A., Grey, J., Woodward, G.
- 16:45 **R05-04** **Impacts of pH and temperature change on predator-prey interactions in a well-characterised food web** (#48)  
Jenkins, G. B., Rall, B. C., Rodriguez Lozano, P., Woodward, G.
- 17:00 **R05-05** **Transfer of pollutants in lacustrine food webs: crustacean zooplankton as solely primary consumer?** (#237)  
Piscia, R., Boggio, E., Manca, M., Galassi, S., Quadroni, S., Bettinetti, R.
- 17:15 **R05-06** **Strong landuse effects on the dispersal of emerging stream insects: implications for transfers of aquatic subsidies to terrestrial consumers** (#522)  
McKie, B., Carlson, P., Sandin, L., Johnson, R.

**R14 | Acute and chronic effects of environmental stress (Part I)****Type: Oral Presentation | Time: 16:00 – 17:30 | Room: Pavillon III****Chairs: Zeis, B.; Weisse, T.**

- 16:00 **R14-01** **Functional characteristics of metabolic enzymes in *Daphnia* reveal adjustments to changes in temperature conditions** (#97)  
Zeis, B., Hoffschroer, N.
- 16:15 **R14-02** **Oxygen stress and low food quality: does *Daphnia* care?** (#331)  
Lukas, M., Wacker, A.
- 16:30 **R14-03** **Effects of fluoxetine on life history parameters of *Daphnia magna*** (#343)  
Grzesiuk, M., Lupińska, A.
- 16:45 **R14-04** **Towards estimating invasion potential: CSR (cellular stress response) in two populations of the killer shrimp, *Dikerogammarus villosus* (Crustacea, Amphipoda) from different invasion routes** (#596)  
Hupalo, K., Riss, H. W., Grabowski, M., Rewicz, T., Thiel, J., Meyer, E. I.
- 17:00 **R14-05** **Pesticide impacts on predator-prey interactions across two levels of organisation** (#511)  
Rasmussen, J., Nørum, U., Friberg, N.
- 17:15 **R14-06** **Short term behavioural responses of benthic communities to thermopeaking waves** (#155)  
Maiolini, B., Bruno, M. C.

POSTER SESSIONS

**P2 | Poster Session**

R04, R05, R09, R11, R12, R13, R14, SS03, SS13

Time: 17:30 – 18:30 | Room: Foyer

**R04 – Structural and functional biodiversity**

Chairs: Richardson, John S.; Camacho, Antonio

- P2-68 **Environmental stress on metabolism in decomposing leaves in mountain streams** (#523)  
Fleituch, T.
- P2-69 **The influence of tufa deposition on periphyton development** (#470)  
Matonićkin Kepčija, R., Primc, B., Miliša, M., Sertić Perić, M., Radanović, I., Habdija, I.
- P2-70 **Niche segregation and biotic interactions between two closely related gammarids (Crustacea: Amphipoda) – native vs. naturalized invader** (#346)  
Mauchart, P., Czirik, A., Horvai, V., Ortmann-Ajkai, A., Ildikó, S., Csabai, Z.
- P2-71 **Control of density on the growth of European eel population in three contrasting temperate systems** (#481)  
Boulenger, C., Crivelli, A., Feunteun, E., Acou, A.
- P2-72 **The role of macrophyte herbivory and periphyton shading in aquatic vegetation collapse in shallow lakes** (#614)  
Hidding, B., Bakker, L., Hilt, S.
- P2-73 **A New Method of Identifying Historical *Daphnia* Samples** (#427)  
Ayan, G., Rusek, J., Tellenbach, C., Theodosiou, L., Turko, P., Giessler, S., Spaak, P., Wolinska, J.

**R05 – Food web connections within and across habitats**

Chair: Kainz, Martin

- P2-74 **An inter-biome approach to assess the impacts of agricultural land use on stream ecosystem functioning** (#586)  
Wild, R., Parlow, L., Norf, H., Brauns, M.
- P2-75 **Benthic food webs under the influence of agricultural land-use and urbanization** (#195)  
Baumgartner, S., Robinson, C. T.
- P2-76 **Selective feeding of fishes in a detritus-based sandy lowland brook?** (#85)  
Göcke, C., Meyer, E. I.
- P2-77 **Data evaluation from long-term monitoring of a stratified lake** (#130)  
Keim, A.

**R09 – Ecological quality assessment**

Chair: Albay, Meric

- P2-78 **Ecosystem functioning in streams under human pressure: agricultural streams as an example** (#529)  
Truchy, A., Johnson, R., McKie, B.
- P2-79 **Applying the River Habitat Survey method for evaluating ecological status of small rivers** (#197)  
Musial, M., Fialkowski, W.
- P2-80 **Benthic algae in streams and rivers of North Rhine Westphalia, Germany: indicators of ecological quality** (#405)  
Foerster, J., Eckartz-Vreden, G.
- P2-81 **Benthic diatoms as a tool for water quality assessment of rivers and streams in Croatia - Implementation of Water Framework Directive** (#422)  
Kralj Borojević, K., Gligora Udovič, M., Žutinić, P., Varbiro, G., Coring, E., Plenković-Moraj, A.
- P2-82 **Benthic algae in Polish system of water quality assessment** (#65)  
Panek, P.
- P2-83 **Water framework directive implementation for ecological quality of Yesilirmak River** (#546)  
Kazancı, N., Türkmen, G., Başören, Ö., Ekingen, P., Bolat, H. A., Tugaytimur, T.
- P2-84 **Bottom- up typology based macroinvertebrate multimetric index for evaluation of Hungarian streams** (#381)  
Gabor, V., Csaba, D., Boda, P.
- P2-85 **The performance of benthic invertebrate indices to assess ecological status in Mediterranean streams** (#174)  
Mirra, C., Chaves, M. L., Chainho, P., Correia, M. J., Félix, P. M., Alves, A. S., Costa, J. L., Cancela da Fonseca, L.
- P2-86 **WFD and eutrophication assessment: the role of nitrogen as a driving nutrient in shaping phytoplankton assemblages in 13 Italian water bodies.** (#114)  
Morabito, G., Austoni, M., Rogora, M., Marchetto, A., Lugliè, A., Mariani, M. A., Padedda, B. M.
- P2-87 **Determination of Trophic State of Lake Manyas (Turkey)** (#308)  
Köker, L., Sağlam, O., Dorak, Z., Akçaalan, R., Albay, M.
- P2-88 **Preliminary study of 15 Corsican Lakes (France) Evaluation of the ecological state using multivariate analysis** (#563)  
Mori, C., Orsini, A., Faggianelli, J.
- P2-89 **Comparison of heavy metal concentration of fish in a shallow eutrophic lake** (#608)  
Albay, M., Köker, L., Dorak, Z., Sağlam, O., Akçaalan, R.

- P2-90**                    **Ecological potential of Czech manmade lakes based on fish community** (#62)  
Blabolil, P., Říha, M., Peterka, J., Prchalová, M., Vašek, M., Jůza, T., Čech, M., Draščík, V., Kratochvíl, M., Frouzová, J., Muška, M., Tušer, M., Ricard, D., Mrkvička, T., Boukal, D., Matěna, J., Kubečka, J.
- P2-91**                    **No-extreme concentrations of microcystin-LR affect charophytes inhabiting Mediterranean littoral wetlands (L'Albufera de València Natural Park, Spain)** (#370)  
Segura, M., Cortés, F., Rodrigo, M. A., Rojo, C.
- P2-92**                    **Monitoring for Low Level Contamination of Water with Shiga-Toxicogenic *E. coli*** (#437)  
Kavanagh, S., Morris, D., Cormican, M.

**R11 – Restoration, conservation, sustainability**

Chairs: Cecchi Philippe; Geist, Juergen; Gabel Friederike

- P2-93**                    **Does boulder density and flow discharge influence cyprinid fish performance in pool-type fishways?** (#540)  
 Santos, J. M., Branco, P., Silva, A., Katopodis, C., Pinheiro, A., Viseu, T., Ferreira, M. T.
- P2-94**                    **Mitigating pumping stations as major fish migration barriers in the lower Netherlands** (#456)  
Wanink, J. H., Kruitwagen, G., Meier, M., de Bijl, J., Chan, P. M.
- P2-95**                    **Habitat restoration in an urban channel – the Münstersche Aa – experiences from monitoring of a pilot action** (#609)  
Vosswinkel, N., Mohn, R., Buttschardt, T., Meyer, E. I., Bünning, I., Riss, H. W.
- P2-96**                    **The Penrith Lakes Scheme - Natural Heritage & Biodiversity Conservation Masterplan - Re-establishing Endangered Riparian Ecological Communities and In-Lake Biology.** (#129)  
Robinson, D.
- P2-97**                    **Emergence behaviour of the Balkan Goldenring (*Cordulegaster heros* Theischinger, 1979) in Hungarian upstreams** (#478)  
Boda, R., Bereczki, C., Mauchart, P., Pernecker, B., Csabai, Z.

**R12 – Novel tools and methods**

Chairs: Petzoldt, Thomas; Frassl, Marieke

- P2-98**                    **Satellite based monitoring of Swedish lakes** (#603)  
 Philipson, P., Stelzer, K., Geissler, J.
- P2-99**                    **Remote Sensing as a supplementary Tool for WFD monitoring** (#602)  
Geissler, J., Stelzer, K.
- P2-100**                  **Wavelet analyses as a novel tool for evaluating hydrological consequences of glacier melting** (#378)  
Cauvy Fraunié, S.

**R13 – Invasive species**

Chair: Norf, Helge

- P2-101**                  **Mediterranean rivers with low hydromorphological impacts constitute a refuge for native fish and amphibians, in front expansion of exotic aquatic species: the case of several basins in northeast Catalonia.** (#305)  
 Cruset, E., Pou-Rovira, Q., Llopart, X., Rot, M.
- P2-102**                  **The preliminary assessment of environmental plasticity and genetic diversification on the establishment success of a highly invasive freshwater fish, *Pseudorasbora parva* in Turkey** (#436)  
Ağdamar, S., Tarkan, A. S., Keskin, E.
- P2-103**                  **Growth of *Pseudorasbora parva* (Temminck&Schlegel,1846) Invaded Kocadere Reservoir in Thrace Region of Turkey.** (#249)  
Gürsoy Gaygusuz, Ç., Gaygusuz, Ö.
- P2-104**                  **Ecological effects caused by Chinese pond mussel (*Sinanodonta woodiana*) (*Bivalvia*, *Unionidae*)** (#571)  
 Arpad, B. - K., Arpad, B. - K.
- P2-105**                  **Variability and plasticity of growth rate of the invasive Zebra mussel in anthropogenic water-bodies** (#530)  
Vláčilová, A., Uvira, V.
- P2-106**                  **Distribution, threats and conservation of *A. pallipes* complex in Trentino (Italian Alps)** (#156)  
 Endrizzi, S., Bruno, M. C., Maiolini, B.
- P2-107**                  **Nature Locator: Geospatial Smartphone Apps and the use of Crowd Sourcing for the Recording of Invasive Species** (#549)  
Kilbey, D.
- P2-108**                  **Simple and cost-effective molecular technique for prey species identification in predator's stomach content** (#145)  
Pekárik, L., Kohout, J., Didenko, O., Ciampor, F., Čiamporová - Zaťovičová, Z.
- P2-109**                  **Invasion of *Pectinatella magnifica* in Trebonsko Protected Landscape Area and Biosphere Reserve (Czech Republic)** (#625)  
 Balounová, Z., Havlíčková, L., Musil, M., Rajchard, J., Šinko, J.

**R14 – Acute and chronic effects of environmental stress**

Chair: Norf, Helge

- P2-110**            **The effects of exposure to low dissolved oxygen on the fitness of incubating salmonid embryos; a field and laboratory investigation. (#92)**  
Bloomer, J., Sear, D., Kemp, P.
- P2-111**            **Phyto- and zooplankton response to the invasion of *Gonyostomum semen* in Lithuanian lakes (#359)**  
Kasperovicene, J., Koreiviene, J., Karosiene, J.

**SS03 – Biodiversity of Freshwater Ecosystems: Status, Trends, Pressures, and Conservation Priorities**

Chairs: Tockner, Klemens; Freyhof, Joerg

- P2-112**            **Effects of human disturbances on woody riparian richness and riparian quality at different spatial scales in a Mediterranean river basin. (#569)**  
Bruno, D., Belmar, Ó., Sánchez-Fernández, D., Velasco, J.
- P2-113**            **Diversity and distribution of stoneflies (Plecoptera) in the Czech Republic over five decades (#270)**  
Bojková, J., Soldán, T., Zahrádková, S.
- P2-114**            **Distribution and conservation status of endangered *Phoxinus phoxinus* Drensky, 1926 (#151)**  
Saç, G., Özuluğ, M.

**SS13 – Models of Freshwater Ecosystems: advances, challenges and new applications**

Chairs: Petzoldt, Thomas; Frassl, Marieke

- P2-115**            **Streambugs: application and validation of a stream invertebrates community model (#159)**  
Dietzel, A., Schuwirth, N., Reichert, P.
- P2-116**            **Limitations in transferring macroinvertebrate distribution models to adjacent catchments (#191)**  
Gies, M., Sondermann, M., Hering, D., Feld, C. K.
- P2-117**            **Dealing with noisy absences to optimize species distribution models: an iterative ensemble modelling approach (#30)**  
Lauzeral, C., Brosse, S., Grenouillet, G.

Friday July 5, 2013						
	Europasaal		Salon 3	Pavillon I	Pavillon III	Foyer + Lobby
	Salon 1	Salon 2				
08:30-08:45						
08:45-09:00	Bernhard, E. S. - Plenary 7					
09:00-09:15						
09:15-09:30						
09:30-09:45	Dziallas, C. - Plenary 8					
09:45-10:00						
10:00-10:45	Morning Break					
10:45-11:00	SS05-01. Elias, C. L.	R11-07. Alexandre, G.	SS13-20. Branco, P.	R05-07. Worischka, S.	R14-07. Weisse, T.	
11:00-11:15	SS05-02. Schitny, D. C.	R11-08. Januschke, K.	SS13-21. Ferreira, M.	R05-08. Hellmann, C.	R14-08. Thackeray, S.	
11:15-11:30	SS05-03. Pätzig, M.	R11-09. Mueller, M.	SS13-22. Sondermann, M.	R05-09. Ruhi, A.	R14-09. Keppel, M.	
11:30-11:45	SS05-04. Miler, O.	R11-10. Peterka, J.	SS13-23. Kuemmerlen, M.	R05-10. Brabender, M.	R14-10. De Castro-Català, N.	
11:45-12:00	SS05-05. Lorenz, S.	R11-11. Sychra, J.	SS13-24. Domisch, S.	R05-11. McMeans, B.	R14-11. Spann, N.	
12:00-12:15	SS05-06. Boromisza, Z.	R11-12. Kügel, B.	SS13-25. Wu, Y.	R05-12. Kainz, M. J.	R14-12. Salis, R.	
12:15-12:30	SS05-07. Schällicke, S.	R11-13. May, L.	SS13-26. Janssen, A. B. G.	R05-13. Foucreau, N.	R14-13. Lange, K.	
12:30-12:45	SS05-08. Gabel, F.	R11-14. Cecchi, P.		R05-14. Mölzner, J.	R14-14. Barabanova, L.	
12:45-13:00		R11-15. Schulz, U. H.				
13:00-14:00	Lunch					
14:00-14:30	Closing					

Posters & Exhibition

## MORNING SESSIONS

**SS05 | Ecology and management of littoral zones****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Salon 1****Chairs: Gabel, F.; Lorenz, S.; Miler, O.**

- 10:45 **SS05-01** **Reference conditions in highly disturbed areas: an attempt to redefine the typology of Portuguese littoral region based on diatoms** (#172)  
Elias, C. L., Calapez, A. R., Almeida, S. F. P., Feio, M. J.
- 11:00 **SS05-02** **Primary Succession of Pioneer Vegetation on Newly Formed Fresh-water Islands in Lake Wohlen (Switzerland)** (#177)  
Schittny, D. C.
- 11:15 **SS05-03** **Spatiotemporal relationships between macrophytes and macroinvertebrates at human modified lakeshores** (#192)  
Pätzig, M., Grüneberg, B., Brauns, M.
- 11:30 **SS05-04** **Multimetric assessment of hydromorphological shoreline degradation based on eu littoral macroinvertebrate communities** (#137)  
Miler, O., Porst, G., McGoff, E., Pilotto, F., Donohue, L., Jurca, T., Solimini, A., Sandin, L., Irvine, K., Aroviita, J., Clarke, R., Pusch, M.
- 11:45 **SS05-05** **Whole lake-assessment based on benthic invertebrates under the EU Water Framework Directive** (#234)  
Lorenz, S., Blaschke, U., Miler, O., Pusch, M.
- 12:00 **SS05-06** **Principles of lakeshore restoration: a case study of Lake Velence, Hungary** (#23)  
Boromisza, Z., Pádárné Török, É., Ács, T.
- 12:15 **SS05-07** **Factors affecting the littoral fish community in small artificial lakes in north-west Germany** (#502)  
Schällicke, S., Hühn, D., Arlinghaus, R.
- 12:30 **SS05-08** **Ship-induced waves favour neozoa and alter the community composition of benthic invertebrates** (#527)  
Gabel, E., Brauns, M., Pusch, M., Garcia, X. - F.

**R11 | Restoration, conservation, sustainability (Part II)****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Salon 2****Chairs: Cecchi, P.; Geist, J.**

- 10:45 **R11-07** **Population genetic structure of chub (*Squalius cephalus*) shaped by hydroelectric power plants in Rhine, Aar, Limmat and Reuss** (#236)  
Alexandre, G.
- 11:00 **R11-08** **Pioneer colonization and spatio-temporal processes in restored river sections** (#535)  
Januschke, K., Lorenz, A. W., Hering, D.
- 11:15 **R11-09** **The conservation value of stream restoration measures: an evaluation for target species and on ecosystem scale** (#184)  
Mueller, M., Pander, J., Geist, J.
- 11:30 **R11-10** **Fish community succession in three post-mining lakes in Czech Republic** (#230)  
Peterka, J., Čech, M., Draščík, V., Vejřík, L., Richta, J., Blabolil, P., Jůza, T., Frouzová, J., Prchalová, M., Kubečka, J.
- 11:45 **R11-11** **The impact of fish stock manipulation on aquatic macroinvertebrates and waterfowl in the Lednice Fishponds National Nature Reserve (Czech Republic)** (#415)  
Sychra, J.
- 12:00 **R11-12** **River and floodplain restoration on the upper Danube by reestablishing river continuum and ecological flooding** (#24)  
Kügel, B.
- 12:15 **R11-13** **Managing lakes to deliver multiple ecosystem services: A case study from Loch Leven, Scotland, UK.** (#561)  
May, L., Spears, B.
- 12:30 **R11-14** **Perverse effects of eutrophication's remediation operations in a Mediterranean coastal lagoon (Biguglia, Corsica).** (#454)  
Cecchi, P., Garrido, M., Collos, Y., Pasqualini, V.
- 12:45 **R11-15** **Stream walk surveys by volunteers in river basin management: an example from Brazil** (#520)  
Schulz, U. H., Nabinger, V.

**SS13 | Models of Freshwater Ecosystems: advances, challenges and new applications (Part IV)****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Salon 3****Chairs: Mooij, W.; Kattwinkel, M.; Kail, J.; Kuemmerlen, M.; Schuwirth, N.; Petzoldt, T.; Frassl, M.**

- 10:45 **SS13-20** **Longitudinal connectivity enhancement priorities for stream fishes: a spatial graph approach (#73)**  
Branco, P., Segurado, P., Santos, J. M., Ferreira, M. T.
- 11:00 **SS13-21** **Accounting for detectability in freshwater species distribution models: an approach based on time to first detection (#301)**  
Ferreira, M., Filipe, A. F., Magalhães, M. F., Beja, P. R.
- 11:15 **SS13-22** **Landscape filters influence the dispersal of aquatic macroinvertebrates: implications for river restoration management. (#268)**  
Sondermann, M., Gies, M., Schröder, M., Hering, D., Feld, C. K.
- 11:30 **SS13-23** **Small-scale stream macroinvertebrate distribution models: the catchment perspective (#205)**  
Kuemmerlen, M., Schmalz, B., Cai, Q., Fohrer, N., Sonja, J.
- 11:45 **SS13-24** **Assessing the influence of river flow regimes on the occurrence of benthic invertebrates (#144)**  
Domisch, S., Portmann, F., Haase, P., Döll, P., Jähnig, S.
- 12:00 **SS13-25** **A peatland carbon and nitrogen model for analyzing the long-term effects of atmospheric nitrogen deposition and climate change on northern peatlands (#171)**  
Wu, Y., Blodau, C.
- 12:15 **SS13-26** **Multiple states in Lake Taihu (China): spatial variability in the subtropics (#406)**  
Janssen, A. B. G., Mooij, W. M.

**R05 | Food web connections within and across habitats (Part II)****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Pavillon I****Chairs: Winkelmann, C.; Kainz, M.**

- 10:45 **R05-07** **Habitat-specific food web structures in small streams – Interactions between predators (#141)**  
Worischka, S., Hellmann, C., Benndorf, J., Winkelmann, C.
- 11:00 **R05-08** **How important are invertebrate predators in streams? A field study to compare the predation impact of fish and invertebrates (#143)**  
Hellmann, C., Worischka, S., Benndorf, J., Winkelmann, C.
- 11:15 **R05-09** **How does hydrological stability affect food chain length in Mediterranean streams? (#335)**  
Ruhí, A., Muñoz, I., Tornés, E., Batalla, R. J., Vericat, D., Ponsatí, L., Acuña, V., von Schiller, D., Bussi, G., Francés, F., Sabater, S.
- 11:30 **R05-10** **Trophic niche variability of the invasive amphipod *Dikerogammarus villosus* in the River Elbe (#68)**  
Brabender, M., Weitere, M., Brauns, M.
- 11:45 **R05-11** **Allochthonous dissolved organic matter pathways support somatic growth of *Daphnia magna* when algae are limiting (#483)**  
McMeans, B., Koussoroplis, A. - M., Arts, M. T., Kainz, M. J.
- 12:00 **R05-12** **Fatty acid biomarkers in zooplankton: influence of seasonal diet and temperature changes (#585)**  
Kainz, M. J., McMeans, B., Koussoroplis, A. - M., Striebel, M.
- 12:15 **R05-13** **Effect of global warming and vegetation change induced in ripisylves on litter breakdown by populations of *Gammarus pulex* (Amphipoda) from the Rhône River Valley. (#158)**  
Foucreau, N., Puijalon, S., Hervant, F., Piscart, C.
- 12:30 **R05-14** **The smell of high quality food: Volatile signal substances from benthic green algae serve as food-quality-indicators for a freshwater gastropod (#466)**  
Mölnzer, J., Fink, P.

**R14 | Acute and chronic effects of environmental stress (Part II)****Type: Oral Presentation | Time: 10:45 – 12:45 | Room: Pavillon III****Chairs: Zeis, B.; Weisse, T.**

- 10:45     **R14-07**     **Interactive effects of key environmental variables confine the ecological niche of planktonic microeukaryotes (#70)**  
Weisse, T.
- 11:00     **R14-08**     **Disentangling long-term responses of crustacean zooplankton populations to multiple stressors acting upon a mesotrophic lake ecosystem (#150)**  
Thackeray, S., Smyntek, P., Feuchtmayr, H., Winfield, I., Maberly, S.
- 11:15     **R14-09**     **Evolutionary aspects of host-parasite interactions between anguillicoloid swim bladder nematodes and their eel hosts (#134)**  
Keppel, M., Dangel, K. C., Grabner, D., Sures, B.
- 11:30     **R14-10**     **The effects of emerging pollutants in the reproduction of the snail *Physella acuta*: an *in situ* bioassay in Iberian basins. (#553)**  
De Castro-Català, N., López-Doval, J. C., Petrovic, M., Gorga, M., Muñoz, I.
- 11:45     **R14-11**     **Metabolomics as a tool in ecotoxicology: Size-dependent effects of cadmium and zinc on the Asian clam (*Corbicula fluminea*) (#212)**  
Spann, N., Jones, O. A. H., Traunspurger, W., Griffin, J. L., Aldridge, D. C.
- 12:00     **R14-12**     **Multi-stressor effects of nutrients and sediment on stream communities: changes in stressor importance with time (#488)**  
Salis, R., Blakemore, K., Matthaei, C.
- 12:15     **R14-13**     **Modelling the combined effects of agricultural stressors on stream benthic invertebrates (#480)**  
Lange, K., Chanut, P., Townsend, C., Matthaei, C.
- 12:30     **R14-14**     **Genetic changes in fresh water hydrobionts as important indicator of environmental stress (#35)**  
Barabanova, L., Daev, E., Dukelskaya, A.

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**Pre-Conference-Workshops**  
 Sunday, June 30, 2013  
 University of Münster  
 Institute for Evolution and Biodiversity  
 Hüfferstraße 1  
 48149 Münster

**Welcome Reception**  
 Sunday, June 30, 2013  
 A2 am Aasee  
 Annette-Allee 3  
 48149 Münster

**Conference Dinner**  
 Thursday, July 4, 2013  
 Mühlenhof-Freilichtmuseum Münster  
 Theo-Breider-Weg 1  
 48149 Münster

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**Travelling by train**

At the main station you can take the bus with the number 14. The busses drive from the bus platform B 1 in direction zoo. After 13 minutes you leave the bus at the stop „Franz Hitze Haus“. The hotel is situated on the opposite. The bus ticket costs about 2,60 €. Direct transport by taxi takes about 10 minutes and costs approx 10,-€.

**Travelling from the FMO airport Münster/Osnabrück**

From the airport to and fro Münster main station with the lines S50 (Express Bus), D50, and R51. Ride time is 30 to 50 minutes and the fare is 6,40 €. From the mainstation described above. Transport by taxi would take 15 minutes and cost about 35,-€.

