

# Programme



**"First for Africa and South Arica"**

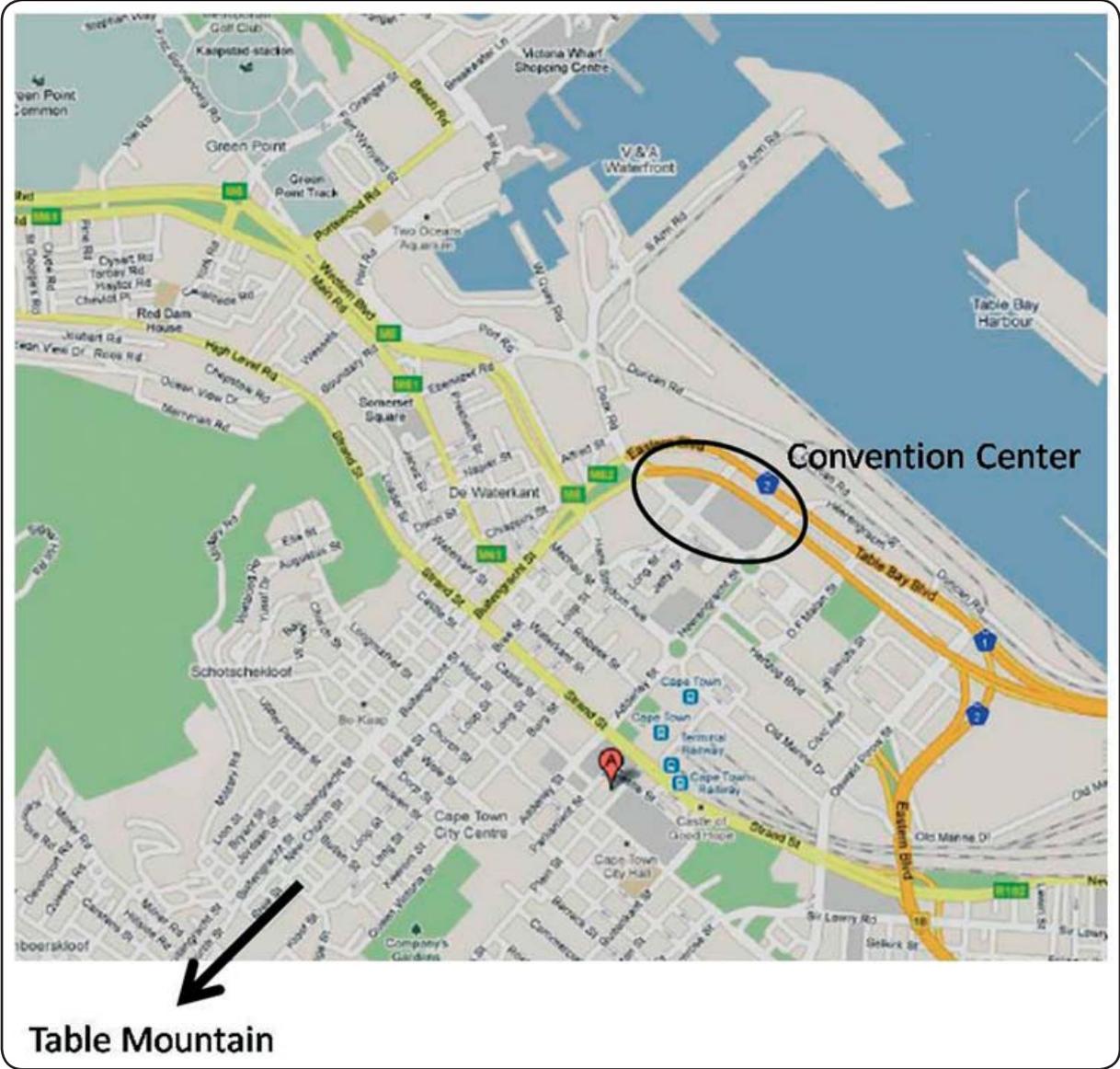
## **31<sup>st</sup> Congress of the International Limnological Society**

**Cape Town**  
15 – 20 August 2010





# Location of the Cape Town Convention Centre



The Cape Town International Convention Centre (CTICC) is situated in the CBD of Cape town, within walking distance from e.g. the V&A Waterfront, Parliament Buildings and many businesses, cafés and restaurants.

**TIP:** Use Table Mountain as your orientation point!

We Thank our Sponsors, without whose generous contributions the hosting of this Congress would not have been possible.

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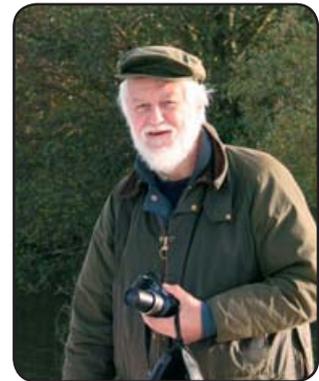
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## Message from Brian Moss, President of SIL

Welcome to the first ever SIL Congress in Africa. Cape Town is a delightful city and South Africa is a beautiful land, where freshwater is a scarce resource, now protected in revolutionary water law. The local organisers have worked extremely hard, not least because there are comparatively few freshwater ecologists in the country, to make this Congress a success. It is now up to the rest of us to support that effort. SIL Congresses offer a unique camaraderie and an opportunity to widen knowledge from the heavily studied waters of the north-temperate world to the equally important, indeed perhaps more crucial, waters of arid lands. We shall also launch our new journal, *Inland Waters*, at this Congress. I hope everyone will have a rewarding and enjoyable time and will take back happy memories of their stay.



**Brian Moss, President, SIL**

## From the LOC

Twelve years since the idea of having a SIL congress in South Africa and finally we meet in the Mother City, Cape Town. We sincerely hope that you will be rewarded scientifically, experience something of South Africa, its people, natural heritage and amazing beauty. We appreciate your efforts to travel to South Africa and share your experiences and expertise with us. World-wide there are unprecedented scientific challenges that face us and it is through the sharing of knowledge that we will be able to understand and develop new strategies, hypotheses and advance our science, Limnology. Enjoy the five days of scientific exchange with us!



**Johan Grobbelaar, LOC Chair**

## From the Scientific Committee

The Scientific Organising Committee for SIL 2010 in Cape Town extends a warm welcome to the Executive of SIL and the delegates, many of whom have travelled from far and wide, to attend Congress in our Mother City.

Organising the scientific component has been a challenging and stimulating episode in the lives of South African limnologists – and more so as we follow an eminently successful World Cup!. The challenge came from the application of modern IT technology that allowed instant communication between members of the committee, and stimulating because of the rich diversity of contributions both oral and poster that arrived via e-mail. Committee members have read the abstracts and if authors note small editorial changes, we hope you will accept them.

And above all - enjoy the Congress and all its activities! (clock-wise: Brian Allanson, Jenny Day, Mike Silberbauer and Carin van Ginkel)

**Brian Allanson, Convenor**



# Important Congress Information

## Congress Venue

The Congress will take place in the Cape Town International Convention Centre (CTICC), Convention Square, 1 Lower Long Street, Cape Town, Tel: 021 410 5000. We will occupy only a section of this Centre, including Ball Room East and West, Break-Away Rooms 1.6 and 1.4, as well as three offices (President/Secretary General, Editors Office and the Presentation Pre-View Room). The venues will be clearly signposted. Ample parking is available at the CTICC and P3 is below the lecture halls.

## Registration

The registration desk will be in Ball Room West. Opening times will be on Sunday 15<sup>th</sup> from 14:00 to 18:00, Monday 16<sup>th</sup> from 08:00 to 13:00, Tuesday 17<sup>th</sup> from 08:00 to 11:00, Wednesday 18<sup>th</sup> through to Friday 20<sup>th</sup> from 08:00 to 10:00. Please note that Denise Johnson (SIL Secretary) will be at the registration booth.

## Name Tags

Delegates and accompanying persons are requested to wear their name whenever they are in the Conference Centre. This is important because it will allow access to all the venues, as well as for catering staff to serve you with coffee, tea and the buffet lunches. Name tags must also be worn the evening with the dinner at Moyo. This will be your entrance ticket.

The colour coding of the name tags are as follows:

- White = Delegates
- Orange = Local Organizing Committee
- Green = Accompanying Persons
- Pink = Student Volunteers
- Blue = Secretariat

## Medical Help

Situated on ground level of the CTICC is Medi-Clinic where you will find trained medical staff.

## Speakers Preparation, Preview and Presentation Uploading

Delegates must use this facility to check their presentations and upload their data. This must be done at least 2 hours prior to a presentation. An IT engineer will be at hand to assist delegates.

## Oral Presentations

Each day starts with keynote plenary lectures of about 45 minutes and 15 minutes discussion. This will be followed with parallel sessions where each presentation is allowed 20 minutes in total, made up of 15 minutes presentation and 5 minutes discussion. It is important to keep strictly with the time in order to allow delegates to move from one session to another. Although not recommended, delegates may use their own laptops for their presentations. Please indicate this to the IT consultant present at the back of the lecture rooms.

## Poster Presentations

Poster boards will be available in Ball Room West and they will be numbered. There will be three poster sessions and authors are requested to be at their posters during these times (see the programme overview for session times). Poster will be displayed for the duration of the congress and authors must remove them by 14:00 on Friday 20 August 2010.

## Workshops

SIL has several working groups and some of them will meet during the congress. Monday 16 August and Tuesday 17 August 2010 after 18:00 are available for these meetings. Please consult the notice board at reception for announcements.

## Teas, Coffee and Meals

Tea and Coffee will be available in Ball Room West. Lunch will be served in Ball Room West on Monday, Tuesday, Thursday and Friday. It will be a self-serve buffet. On Wednesday a box-lunch will be provided that should be enjoyed on the buses *en route* to the various sites that will be visited. Teas, Coffee and Lunches are included in your registration fees. Should you want to enjoy something in-between, please visit the Coffee Shop on the Ground floor.

## Social Programme and Banquet

- ❖ The Honorable Dan Plato, Executive Mayor of Cape Town will host a Meet-and-Greet function in Ball Room West on Sunday Afternoon at 18:00. This will be an opportunity to meet old friends and acquaint new one's.
- ❖ The Banquet will be held at Moyo on the Spier Wine Estate near the town of Stellenbosch and the cost is included in your registration fee. Buses transporting delegates will leave the CTICC at 18:00 on Thursday 19 August 2010. This will be an informal function and delegates are advised to dress casually but warm. This will be an evening with lots to eat, drink and to experience something of Africa. Please consult the information brochure in your documentation. Buses will leave Moyo for the CTICC starting at 21:00 and then every 20 minutes. The last bus will leave at 23:00

## Mid-Week excursions

This is included in your registration fee, except where entrance fees are required. The buses will depart from the CTICC at 13:00 and will return to the CTICC at about 18:00. The various options will be displayed on the notice board at Registration. Please make your choice and it will be on a first-come-first serve basis.

## SIL International Committee Meetings

Two meetings will be held in the Break-Away Room 1.4. The 1<sup>st</sup> will take place at 15:00 on Sunday 15 August 2010 and the 2<sup>nd</sup> one on Wednesday 18 August 2010 at 18:30.

## SIL General Assemblies

Two meetings will be held in the Break-Away Room 1.4. The 1<sup>st</sup> will take place at 15:00 on Sunday 15 August 2010 and the 2<sup>nd</sup> one on Wednesday 18 August 2010 at 18:30.

## **Inland Water – Scientific Journal of SIL**

SIL discontinued publishing the *Verhandlungen* and the peer review journal *Inland Waters* replaces it. Instructions for submissions were placed on the SIL web as well as the congress website. Jack Jones the Editor-in-Chief of this new journal will be available in his office for discussions and submissions of papers.

## **Auto Banking/Money Exchange**

There are two auto-banks in the Convention Centre and foreign money exchange is available at the Coffee Shop on the ground floor.

## **Transport**

Most car rental companies have outlets at Cape Town International airport. There are several taxi and shuttle services available between the airport and the CBD. An example is [www.rikkis.co.za](http://www.rikkis.co.za), where trips can be booked.

## **Weather**

The Western Cape is situated in a winter rainfall region and being in the southern hemisphere means that this is winter time. Be prepared and bring something warm and for the rain. Average temperatures for this time of the year are about 15 °C and rainy days are one to two followed by sunny days. This may influence the mid-week excursions.

## **Accompanying Persons**

A tourist office is situated on the ground floor of the CTICC where information is available and day tours could be booked.

## **Road Safety**

In South Africa we drive on the left hand side. When crossing a street, first look left, then right and again left, before crossing the street.

## **Exhibits**

Please visit the exhibitors in Ball Room West.

- Department of Water and Environmental Affairs, South Africa
- Water Research Commission, South Africa
- Fluid Imaging Technologies, USA
- DHI, Denmark
- UNISA, South Africa
- Harties Metsi a Me
- Fisheries Resource Surveys
- Kwazinto Crafts

## **V&A Waterfront**

This is a must for visitors and it is within walking distance from the Convention Centre

## **Emergency Numbers**

- Police – 10 111 or from a mobile 112
- Medical – 10 177
- Tourist Assistance – 021 418 2852
- Johan Grobbelaar – 082 781 6476

## **Student Prizes**

There are a number of prizes for students. An adjudication panel will do the evaluations and the prizes will be awarded during the Closing Ceremony on Friday 20 August 2010.

## **Student Social Activities**

Please visit the notice board for student activities. Students from the University of Cape Town will arrange these “social” events.



# Scientific Programme

## Please note:

- Chairpersons should please keep to the time
- All the abstracts are on the CD in your conference bag
- Speakers must upload their presentations at least 2 hours prior to their time slots.
- At times there are up to five parallel sessions, please plan your attendance to limit disturbing the speakers.

## Baldi Lecture:

Bill Lewis, *Global production of lakes* – Monday 16 August 2010, 11:30

## Kilham Lecture:

Robert W. Sterner, *Lake Superior -- stoichiometry and other mysteries of low productivity* – Tuesday 17 August 2010, 09:00

**Plenary 1:** Rob Hart, *Plankton, fish and man- biotic structures and functional interactions in South African man-made lakes* - implications for water quality, Tuesday 17 August 2010, 10:00

**Plenary 2:** Renzo Perissinoto, *Effects of freshwater deprivation on the ecosystem functioning of the St Lucia estuary (South Africa)*, Wednesday 18 August 2010, 09:00

**Plenary 3:** Tamar Zohary, *Why water level fluctuations matter?*, Wednesday 18 August 2010, 10:00

**Plenary 4:** Bill Harding, *Water as an equalizer: the science and management of South African reservoirs and the implications for social and economic development*, Thursday 19 August 2010, 09:00

**Plenary 5:** Friedrich Recknagel, *Learning from limnological data patterns: Hit or myth of ecological informatics?*, Thursday 19 August 2010, 10:00

**Plenary 6:** Pete Ashton, *The water crisis facing South Africa and the role of limnology*, Friday 20 August 2010, 09:00

## Sunday 15 August 2010

14:00	Registration open's, put up posters
15:00	1 <sup>st</sup> Meeting of the International Committee, venue 1.41
18:00	Meet-and-Greet in Ball Room West, hosted by the City of Cape Town

**Session 1:** Either Ballroom East or rooms 1.61 – 1.64

**Session 2:** Room 1.41                      **Session 3:** Room 1.42

**Session 4:** Room 1.43                      **Session 5:** Room 1.44

# Monday 16 August 2010

08:00	<b>Registration</b>
09:00	<b>Opening Ceremony, Presidential address, 1st General assembly - Chair: Johan Grobelaar</b>
11:00	Tea
11:30	<b>Baldi lecture</b> <b>Bill Lewis</b> Global production of lakes <b>Chair: Brian Moss</b>

13:10      Lunch - Buffet Service in Hall with Posters and Exhibits

	Session 1		Session 2		Session 3		Session 4		Session 5		Climate change	
	Chair	Lakes	Chair	Rivers	Chair	Microbiology	Chair	Plankton	Chair	Session 5	Climate change	
14:00	Ozkundakci	Temporal variations in nitrogen and phosphorus concentrations in 11 volcanic lakes in New Zealand: the role of trophic state, lake morphology and catchment connectivity	Bal	The amorphous silica, nitrogen and phosphorus content of vegetation in and around the Berg River (South Africa) in function of structural strength	Homak	Bacterial single-cell activities along the nutrient availability gradient in a canyon-shaped reservoir – a seasonal study	Christoffersen	Winter ecology of plankton populations in High Arctic, shallow lakes	de Moor	Caddisflies (trichoptera) as indicators of climate change: some preliminary data from the southern cape, South Africa		
14:20	Smol	The growing threat of declining calcium in softwater lakes- a paleolimnological perspective	Muñoz	Nutrient effects on stoichiometry in streams: an interbiome experiment	Jezbera	Ubiquity of Polynucleobacter necessarius subspecies asymbioticus results from ecological diversification	Abdar	Biodiversity of freshwater zooplankton in Western Ghat India	Hampton	Rotifer dynamics across a half century of warming in Lake Baikal, Siberia		
14:40	Agasid	Ciliate and metazooplankton trophic link in shallow and turbid eutrophic Lake Võrtsjarv (Estonia, North-East Europe)	Gislason	Animal communities in cold and hot arctic streams	Rogozin	Limnological conditions and seasonal dynamics of anoxic phototrophic bacteria in two Siberian meromictic lakes	Woelfl	Importance and trophic interactions of the pelagic ciliate Stentor spp. in North Patagonian lakes: first results	Jeppesen	Warming effects on primary producers and oxygen metabolism in lakes with contrasting nutrient concentrations: a long term mesocosm study		
15:00	Bakker	Herbivory in aquatic omnivores: is grazing important in structuring macrophyte communities?	Anishchenko	Estimation of periphytic microalgae gross primary production with DCMU-fluorescence method in Yenisei River (Siberia, Russia)	Salcher	Longitudinal and vertical niche separation of different bacterioplankton populations in Lake Zurich, Switzerland	Trigal	Predicting distribution patterns of the invasive rotifer Kellicottia bostoniensis (Rousselet) in Swedish boreal lakes	Moore	Spatial trends in crustacean zooplankton abundance in Lake Baikal, Siberia across 26 years of warming		

# Monday 16 August 2010 - continued

15:20	Brendonck	Pools on the rocks- freshwater rock pools as model system in ecological and evolutionary research	Baudoin	Linking hydromorphology and aquatic communities: lessons from French rivers survey	Trusova	Amino acids consumption by uncultured bacterioplankton in experimental microecosystems	Arndt	Groundwater protists in African and European aquifers: abundances, diversity and food web functioning	Oertli	Freshwater biodiversity under climate warming pressure- identifying the winners and losers in temperate small waterbodies	
15:40	Tea										
16:10	Low	Impact of 'NE Water' on lake phytoplankton community in a manmade reservoir: unexpected benefits	Bondar-Kunze	Microphytobenthos development in a large regulated river- effect of water level fluctuations, light and fine sediment accumulation	Franco	From oil refinery to microalgal biorefinery	Dubovskaya	Non-predatory mortality of crustacean zooplankton, its possible causes (case study of a small Siberian reservoir)	Rosset	Climate change and freshwater biodiversity- forecasting future changes in small temperate waterbodies	
16:30	Haffner	Limnological factors regulating the dispersal and distribution of endemic species of the Malili Lakes, Sulawesi Island, Indonesia	Davie	Comparison of periphyton in regulated and unregulated rivers of northern inland NSW, Australia	Barry	Spatial and temporal variation in cyanobacterial diversity and nitrogen fixation rates in an Omani wadi	Gliwicz	Daphnia reduced growth at high density levels - crowding effects or inaccessibility of low-density anti-predation refuge	Sadro	Foreshadowing climate change- the impact of an extreme rain event on the ecosystem function of an oligotrophic high-elevation Sierra-Nevada (California, USA) lake	
16:50	Johansson	Food web effects of the bloom-forming flagellate <i>Gonyostomum</i> semen	Drees	Metapopulation analyses by microsatellites of three amphipod species in a central European karst area	Kravchuk	Spatial distribution and seasonal dynamics of akinetes of <i>Anabaena</i> flos-aquae in littoral of small Siberian reservoir	Knillmann	Effect and recovery of <i>Daphnia</i> sp. populations from pesticide stress depends on the competition strength	Schlieff	Leaf decay in drought affected temperate lowland streams - a climate change scenario	
17:10	Yacobi	Phytoplankton sedimentation patterns in a warm stratified lake- deposition and degradation	Eisaholi	Nutrient and light limitation of algal biomass in selected streams in Ireland	Ramm	Application of CARD-FISH technique for identification and enumeration of cyanobacteria akinetes in lake sediments	Macháček	Over-wintering <i>Daphnia</i> - the effect of low temperature on the filtering structures	Ventelä	Climate change will challenge the long term lake restoration – case Sakylan Pyhajarvi (SW Finland)	
17:30	Santos	Time effect and variability of methane bubbling fluxes in tropical hydroelectric reservoirs	Baulch	Isotopic character of nitrous oxide emitted from streams	Muthukumaraswami	Potential impact of cyanotoxins on the survival and growth responses of <i>Heliodiaptomus</i> viduus	De Meester	Microcystis and daphnia- genotype-genotype interactions and the geographic mosaic of coevolution between toxic algae and their grazer			

17:50

Poster session 1

# Tuesday 17 August 2010

08:00	<b>Registration</b>										
09:00	<b>Chair for Kilham Lecture and Plenary 1: Gene Likens</b>										
	<b>Kilham Lecture</b>	<b>Robert Sterner</b>	Lake Superior – stoichiometry and other mysteries of low productivity								
10:00	<b>Plenary 1</b>										
	<b>Plenary 1</b>	<b>Rob Hart</b>	Plankton, fish and man- biotic structures and functional interactions in South African man-made lakes - implications for water quality management								
11:00	Tea										
	<b>Session 1</b>	<b>Session 2</b>	<b>Session 3</b>	<b>Session 4</b>	<b>Session 5</b>	<b>Session 6</b>	<b>Session 7</b>	<b>Session 8</b>	<b>Session 9</b>	<b>Session 10</b>	
	<b>Chair</b>	<b>Chair</b>	<b>Chair</b>	<b>Chair</b>	<b>Chair</b>	<b>Chair</b>	<b>Chair</b>	<b>Chair</b>	<b>Chair</b>	<b>Chair</b>	
	<b>Kamenir</b>	<b>Jesus</b>	<b>Petrucio</b>	<b>Maszczyk</b>	<b>Whitfield</b>	<b>Müller</b>	<b>Rabus</b>	<b>Maszczyk</b>	<b>Whitfield</b>	<b>Beat Oertli</b>	
11:40	Two faces of one community: predictable patterns born from chaotic dynamics	Study of an ecological succession on a small water course in the north of Portugal (Rio Negro creek) after a period of drought	Spatial and temporal water quality dynamics in an oligotrophic and cyanobacteria dominated coastal lagoon, South Brazil	Ideal free distribution of Daphnia modified by predation	Effects of microcystin-RR and Planktothrix agardhii extracts on Daphnia magna population dynamics characteristics	Growing large and bulky in the presence of the enemy: Daphnia magna switches the mode of inducible defences in response to the predatory tadpole shrimp Triops cancriformis	Revealing diversification of zooplankton in two South Australian drinking water reservoirs through integrated taxonomy	Irish headwater lake greenhouse gas concentrations and efflux	Global warming and effects of prolonged stratification in a tropical reservoir	Climate change	
12:00	Autotrophic picoplankton before and after artificial mixing of an ice-covered lake	Isotope niches of predatory macroinvertebrates in a neotropical stream in Panama	A preliminary assessment of the longitudinal extent of acidification impact on macroinvertebrate communities in streams draining conifer forest catchments in Ireland	Effects of microcystin-RR and Planktothrix agardhii extracts on Daphnia magna population dynamics characteristics	Growing large and bulky in the presence of the enemy: Daphnia magna switches the mode of inducible defences in response to the predatory tadpole shrimp Triops cancriformis	Revealing diversification of zooplankton in two South Australian drinking water reservoirs through integrated taxonomy	Development of a pilot biotic index for water quality assessment in urban tropical reservoirs	Global warming and effects of prolonged stratification in a tropical reservoir	Global warming and effects of prolonged stratification in a tropical reservoir	Climate change	
12:20	Aquatic macroinvertebrate communities of acid pit lakes	The mobilisation of dissolved organic carbon during floods in a lowland river and diel variation	Physicochemical and biological properties of the most acidic Austrian lake and an adjacent neutralized lake	Effects of microcystin-RR and Planktothrix agardhii extracts on Daphnia magna population dynamics characteristics	Growing large and bulky in the presence of the enemy: Daphnia magna switches the mode of inducible defences in response to the predatory tadpole shrimp Triops cancriformis	Revealing diversification of zooplankton in two South Australian drinking water reservoirs through integrated taxonomy	Development of a pilot biotic index for water quality assessment in urban tropical reservoirs	Global warming and effects of prolonged stratification in a tropical reservoir	Global warming and effects of prolonged stratification in a tropical reservoir	Climate change	
12:40	Vertical space partitioning by phytoplankton of a small pond under different zooplankton grazing pressures	Ice and fire: the ecology of algae and plants in Icelandic streams	Development of a pilot biotic index for water quality assessment in urban tropical reservoirs	Effects of microcystin-RR and Planktothrix agardhii extracts on Daphnia magna population dynamics characteristics	Growing large and bulky in the presence of the enemy: Daphnia magna switches the mode of inducible defences in response to the predatory tadpole shrimp Triops cancriformis	Revealing diversification of zooplankton in two South Australian drinking water reservoirs through integrated taxonomy	Development of a pilot biotic index for water quality assessment in urban tropical reservoirs	Global warming and effects of prolonged stratification in a tropical reservoir	Global warming and effects of prolonged stratification in a tropical reservoir	Climate change	
13:00	Lunch										

## Tuesday 17 August 2010 - continued

Chair	Lakes		Rivers		Water quality		Fish		Climate change	
	Santiago Larranga	Chair	Susan Kilham	Chair	Pete Ashton	Chair	Ryszard Kornijow	Chair	Beat Oertli	
Lund	Ecological consequences and opportunities of an engineered lake district in a dry landscape	Dobson	Detritivore response to leaf litter derived from African and European tree species- a field study in both continents	Colas	Comparison and relationship between functional changes of macroinvertebrates and microbial communities in response to resuspension of contaminated sediment	O'Brien	Use of fish as indicators of ecological health in the assessment of the ecological state of lentic, still standing impoundments in Southern Africa. Case study: Letsibogo Dam, Botswana	McDowell	Impacts of hurricanes on elemental cycles: separating short-term and long-term effects on stream chemistry	
14:00										
Matvienko	Carbon budget at four tropical reservoirs	Maazouzi	Effects of experimental spates on organic matter and microbial activity in gravel bars of a subtropical river	Cremer	Monitoring water quality with DNA- a new molecular tool	Husted	Use of bio-telemetry to evaluate the advantages and disadvantages of using Tigerfish ( <i>Hydrocynis vittatus</i> ) as a management option for the control of alien invasive fish species in Southern African impoundments. Case study: Letsibogo Dam, Botswana	Noges	Climate change and water: potential cross-sectorial trade-offs between adaptation, mitigation and restoration measures in river basin management	
14:20										
Michelutti	Trophic position influences the efficacy of seabirds as metal biovectors	Meyer	Response of stream DOC to changes in quantity and quality of riparian leaf litter	Kelly-Quinn	Evaluation of the performance of selected metrics as water quality indicators for the rivers draining the Merendon Mountains region of Honduras	Herrmann	Tench ( <i>Tinca tinca</i> ) reduction as a management tool favouring birds and bugs	Psenner	The warm early Holocene - a clue for future global change effects in high elevation lakes	
15:00										
Muhid	Factors influencing phytoplankton biomass and composition under drought conditions in a south-east Queensland reservoir	Woods	The macroinvertebrate communities of arid rivers- assessing assemblage response to flow variability	Odupe	Mentum and ligula deformities in chironomidae (diptera) larvae as indicators of anthropogenic impacts in the Swartkops River, South Africa	Daswani	Golomyanka ( <i>Comephorus</i> spp.) onshore and offshore in Lake Baikal, Siberia- abundance, diet, and size distributions			
15:20										
Noges	The role of a large and shallow lake in the carbon budget of north-temperate catchment	Townsend	Interactions between velocity and nutrients in an Australian tropical river- periphyton and invertebrates	Pulido	Short term responses of <i>Lobelia dortmanna</i> to increased alkalinity and sulphate concentrations in surface water	Galeotti	Can meta-population theory explain survival of an aestivating fish species in a seasonal wetland complex?			

## Tuesday 17 August 2010 - continued

Tea		Taxonomy			
Chair	Mark Lund	Carin van Ginkel	Pete Ashton	Jan Herrmann	H Barber-James
Chair	Chair	Chair	Chair	Chair	Chair
15:40	Nykanen	Schletterer	Molversmyr	Nurminen	Barber-James
	Sedimentary zooplankton remains as indicators of ecological quality	The headwaters of the Volga River – a reference system of European importance	The waters of Jæren, Norway - challenges and opportunities	Water quality and density-dependent effects on the feeding efficiency of Eurasian perch - a novel approach on the occurrence of diet shifts	How well are Afrotropical mayflies known? Practical applications of well identified mayflies
16:10	Poikane	Schoelnyck	Mensah	Stenroth	Vuataz
	How good is good ? European approaches to lake ecological assessment	The role of aquatic plant morphology for ecosystem engineering in contrasting environments	A preliminary water quality guideline for the herbicide Roundup in South Africa- assessment factor approach	Spawning migration of Baltic Sea northern pike (Esox lucius), insights from pit-tag and otolith studies	Diversity of heptageniidae (ephemeroptera) in Madagascar using phylogenetic and coalescent-based analyses of DNA sequences
16:50	Rott	Sandin	Stampfli	Impson	Nemcova
	Phytoplankton taxonomy and spatial variation in Nyanza Gulf of Lake Victoria, Africa	Landuse dynamics at the regional and local scale and its consequences for stream biodiversity	Environmental conditions strongly influence the response of zooplankton communities to pesticides	Management of alien fishes in the Western Cape Province of South Africa	When shape is different – distribution of variation in and among populations, local adaptations and silica scale plasticity in Synurophytes (Stramenopiles)
17:10	Riise	Coetzee	Weyhenmeyer	Kornijów	
	Accumulation of nutrients and trace metals in eutrophic lake sediments - spatial variation within a lake basin	Habitat disturbance for the prevention of harmful algal blooms	Pharmaceuticals in surface waters - how persistent are they	Chironomid subfossil remains as a tool for estimation of invertebrate forage base for benthivorous fish	
17:30	Liu	Ivanova	Griffiths	Peter	
	Five years of changes in the water quality of a shallow eutrophic tropical lake in China, following restoration of the area	Seasonal distribution and fatty acid composition of littoral periphytic microalgae in the Yenisei River	Does watershed land use affect the relationship between water quality and riparian land use	Spatial effort allocation of gillnet fishers in Lake Victoria (Tanzania)	

17:50 Poster session 2

18:30 Workshops: Plankton Ecology - Biomonitoring - etc. Please see the notice board at registration for more information

# Wednesday 18 August 2010

Registration											
Chair for Plenaries 2 & 3: Brian Allanson											
Effects of freshwater deprivation on the ecosystem functioning of the St Lucia estuary (South Africa)											
Why water level fluctuations matter?											
Tea											
Session 1		Session 2		Session 3		Session 4		Session 5		Wetlands	
Chair	Lakes	Chair	Rivers	Chair	Water level fluctuations	Chair	Fish	Chair	Chair	Chair	David Livingstone
08:00											
09:00	Plenary 2	Renzo Perissinotto									
10:00	Plenary 3	Tamar Zohary									
11:00											
11:20	Somogyi	Unknown winter algae of turbid soda lakes in Hungary	Simon Mitrovic	Hydrological controls of riverine ecosystems of the Napo River (Amazon Basin): implications for the management and conservation of biodiversity	Asaeda	Effects of water level fluctuation on spatial recruitment pattern and morphology of riparian tree species	John Colman	Recruitment and size-structure dynamics of a lacustrine Arctic chair (Salvelinus alpinus) population revealed by hydroacoustics	Melack	Amazon wetlands-vegetation, inundation and methane evasion	
11:40	Song	Cyanobacterial blooms in three large shallow lakes in China: a comparative study on the dynamic of cyanobacterial bloom in lakes Taihu, Chaohu and Dianchi		Discharge-temperature coupling in a regulated floodplain river relative to the flood-pulse concept	O'Farrell	State shifts in a shallow lake subject to marked water level changes		Changes in fish community structure in European lakes along eutrophication and hydromorphological pressure gradients	Mehner	Aquatic macrophytes enhance terrestrial carbon subsidy to shallow lakes	
12:00	Vakkilainen	Long-term monitoring and ecological regime shifts in Lake Vesijärvi, southern Finland		Effects of shallow and deep sediment disturbance on whole-stream metabolism in a sand-bed channel experiment	Voros	The effect of water level decline on the algal production in a large shallow lake		Examining the impacts of recent culvert construction on trout (Salmo trutta) egg survival in Irish rivers	Szozskiewicz	Macrophyte differentiation of in the river-lake system in the lowland catchment	

## Wednesday 18 August 2010 - continued

12:20	Wang	Thresholds of regime shifts in the Yangtze shallow lakes, evidenced by multi-lake comparison and long-term monitoring	Koehler	Alternative stable states in a lowland river: preconditions, mechanisms, consequences	Rumes	A four thousand year history of crater lakes in western Uganda: response of the aquatic invertebrate fauna to climatic and anthropogenic impacts	Colman	Mercury in atmospheric deposition, sediment cores, and fish on the east and west coasts of North America, and in the southern hemisphere: effects of regional and global atmospheric emissions	Ollis	The development of a national wetland classification system for South Africa
12:40	Jones	Algal biomass and transparency in Missouri reservoirs- influence of non-algal seston measured by mass concentration and laser-scattering detection of particle size classes	Anishchenko	Seasonal variations of metal concentrations in periphyton and taxonomic composition of the algal community at a Yenisei River littoral site	Ubeda Sanchez	Effect of climate-driven water level fluctuations on a large neotropical wetland (Esteros del Iberá, Argentina)	de Mérona	Gold mining impact on fish communities in French Guianas rivers- Preliminary results	Somesan	Sampling effort in seasonal wetlands: how much is enough?

13:00

Mid-Week Excursions - Please Collect your lunch boxes and board the busses outside the Convention Centre

18:30

International Committee Meeting

# Thursday 19 August 2010

Registration	
08:00	
09:00	<b>Plenary 4</b> Water as an equalizer: the science and management of South African reservoirs and the implications for social and economic development <b>Bill Harding</b>
10:00	<b>Plenary 5</b> Learning from limnological data patterns: Hit or myth of ecological informatics? <b>Friedrich Recknagel</b>
11:00	Tea
	<b>Chair for Plenaries 4 and 5: Martin Sondergaard</b>
	Water as an equalizer: the science and management of South African reservoirs and the implications for social and economic development <b>Bill Harding</b>
	Learning from limnological data patterns: Hit or myth of ecological informatics? <b>Friedrich Recknagel</b>
	<b>Session 1</b> Chair
	<b>Session 2</b> Chair
	<b>Session 3</b> Chair
	<b>Session 4</b> Chair
	<b>Session 5</b> Chair
	<b>Eutrophication</b> Chair
11:30	<b>Session 1</b> Chair Munawar Developing ecological indicators of stress and recovery for large lake ecosystems: lessons from the North American great lakes
11:30	<b>Session 2</b> Chair Barnard The relationship between environmental parameters and growth and dynamics of toxic and non-toxic microcystis strains in two South African reservoirs
11:30	<b>Session 3</b> Chair Van Ginkel Applicability of hybrid evolutionary algorithm development for the prediction of algal and cyanobacterial blooms in hypertrophic impoundments in South Africa
11:30	<b>Session 4</b> Chair Arts Midges to mice- how does intelligence make its way onto terrestrial landscapes?
11:30	<b>Session 5</b> Chair Sondergaard Phytoplankton as ecological indicator in lakes- chlorophyll a, cyanobacteria and the European water framework directive
11:50	<b>Session 1</b> Makarewicz Variability in coastal water quality of Lake Ontario
11:50	<b>Session 2</b> Bertoni Long-term trends of organic carbon and bacteria in the deep holo-oligomictic Lake Maggiore, northern Italy
11:50	<b>Session 3</b> Grøtenud A calculation method for estimating internal phosphorus loading in shallow lakes
11:50	<b>Session 4</b> Spertfeld Effects of temperature and dietary eicosapentaenoic acid (EPA) availability on fitness parameters and EPA allocation of Daphnia
11:50	<b>Session 5</b> Romarheim Seasonality of phytoplankton growth limitation in a eutrophic lake
12:10	<b>Session 1</b> MacIsaac Management of invasion vectors in the Laurentian Great Lakes
12:10	<b>Session 2</b> Blom Scent of danger- conspecific chemical cues induce aggregate formation in a freshwater bacterial strain
12:10	<b>Session 3</b> Degermen-dzhi To understanding the mechanisms of blooming of cyanobacteria: parametrical and structural
12:10	<b>Session 4</b> Lukas Simultaneous effects of phosphorus (P) and cholesterol availability on growth and P content of Daphnia magna
12:10	<b>Session 5</b> Poste Accumulation of microcystin in fish can pose risk to consumers
12:30	<b>Session 1</b> Langenberg Ecosystem-based approaches in support of science-based management for African great lakes
12:30	<b>Session 2</b> Li Biological origins and transfer of earthy-musty odorous compounds in the Xionghu Reservoir, China
12:30	<b>Session 3</b> De Wever BioFresh- integrating freshwater biodiversity data
12:30	<b>Session 4</b> Hartwich Food quality analysis in Lake Constance with focus on Daphnia galeata
12:30	<b>Session 5</b> Cecchi Impact of agricultural intensification around West African small reservoirs: a case study

# Thursday 19 August 2010 - continued

12:50	Gopfen	The limnology of Guanting Reservoir (China)	Schlüter	The use of phytoplankton pigments for identifying and quantifying phytoplankton groups in oligotrophic lakes using new pigment ratios derived from cultures	Zhou	Exploration on potential indicating parameters for the forecast of cyanobacteria (Microcystis) bloom in Lake Taihu, China	Hebert	Fatty acid tracers of multiple stressor impacts on aquatic birds	Chen	The measures of water quality improvement and ecological restoration and its effects in the water source area of Lake Chaohu, a large eutrophic shallow lake in China
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13:10 Lunch

	Lakes		Biochemistry		Informatics cont.		Lipids cont.		Eutrophication	
	Chair	Ramesh Gulati	Chair	L Kamp-Nielsen					Chair	Andrew Folkard
14:00	Downing	Modelling food-driven changes in Nile Perch population dynamics	Gumbo	Flow cytometry measurements on Microcystis cells after infection with a predatory bacteria	Nakano	Genotypic succession and early detection of artificial microcystis bloom occurred in outdoor experimental ponds	Richoux	Lipids in aquatic ecosystems- current status and future potential in South Africa	Morar	Harties Meisi a Me Programme
14:20	Cornelissen	Nile perch diet shifts in an ever-changing Lake Victoria	Sonntag	UV photoprotective strategies in freshwater ciliates from alpine lakes			Vermeulen	Spatial and temporal changes in the diet of rocky shore invertebrates along the coast of South Africa: a fatty acid perspective	Koekemoer	Foodweb restructuring management and monitoring Hartbeespoort Dam integrated biological remediation programme
14:40	Sitonen	Paleolimnological study of a holocene lake development in Finnish Lapland - hydrological coupling between the catchment and the lake	Vähätalo	The potential for the photochemical mineralization of dissolved organic carbon from five large rivers			Makhtova	Evaluation of different fish products as a source of essential pufa, and benefit-risk ratio of fish intake in human nutrition	Kumar	Controlled eutrophication a cure for acidic lakes?
15:00	Mackay	Spatial heterogeneity in sediment characteristics in a small lake- linking distribution and wind exposure	Welz	Soil column experiment to compare biotic and abiotic removal of plant phenolics in wetlands			Piepho	Fatty acid composition of phytoplankton species under the influence of different environmental conditions	van Oosterhout	Flock and lock regime shifts Lake Rauwbraken

## Thursday 19 August 2010 - continued

15:20	Stewart	"Snapshots" of sediment chemistries of many lakes in the USA and Germany	Lieberfinger	A model-based comparison of particulate organic matter dynamics in forest and open-canopy streams			Sushchik	High content of eicosapentaenoic acid in spring seston driven by low temperature and its seasonal shift through pelagic food chain of an eutrophic reservoir	
15:40	Tea Posters Session 3								
16:00							Kalachova	Acetylenic acids as highly specific biochemical markers of water moss in feeding of zoobenthos in the Yenisei River	
							Gladyshev	Efficiency of transfer of essential polyunsaturated fatty acids vs. organic carbon from producers to consumers in aquatic ecosystems	

17:45 **Departure of buses for banquet at Moyo on the Spier Wine Estate near the town of Stellenbosch. Buses will return to the Convention Centre at 20 minute intervals starting at 21:00. The last bus will leave Moyo at 23:00. Dress casual and warm!**



# Posters

Delegates may put up their posters any time from 14:00 on Sunday 15 August and should remove them by 14:00 on Friday 20 August

## Poster Session 1 - Monday 16 August 2010

1	Choi	Spring zooplankton community dynamics with respect to previous summer rainfall in the regulated Nakdong river	13	Sartori	Functional effects of deforestation on stream ecosystems in Madagascar based on growth and production of mayflies (Ephemeroptera)
2	Kovacevic	Morphological features and isoenzyme characterization of endosymbiotic algae from green hydra	14	Tanabe	Photophysiological responses and the structure are the key to the success of lush vegetation covering the lake beds in Antarctica
3	Krauss	Heavy metal induced ecobiochemical adaptations of freshwater aquatic hyphomycetes	15	González	Lake Valencia (Venezuela) 20 years after- is possible more eutrophication
4	Syal	Metabolic costs of predator-induced defences in the Arabian toad ( <i>Bufo arabicus</i> )	16	Jo	Long-term changes of fish community and current status of exotic species in Upo wetlands (South Korea)
5	Yagi	Manganese cycles associated with microbiological utilization and carbon cycle in oxic and anoxic boundary layers of Lake Fukami-ike	17	Saario	Changing management challenges of a shallow lake: cyanobacterial blooms, invasive plants, cyprinid fish, climate change - from aeration and submerged plant removal to biomanipulation
6	Addo-Bediako	Biomonitoring the Middle Catchment area of the Olifants River System in the Limpopo Province, South Africa. Part 2: Fish health and parasites at Flag Boshielo Dam	18	Wan	Simulation studies on the sediments affecting <i>Microcystis</i> recruitment in north bay of Lake Dianchi, China
7	Jooste	Biomonitoring the Middle Catchment area of the Olifants River System in the Limpopo Province, South Africa. Part 1: Water quality and sediment of Flag Boshielo Dam	19	Langenberg	Introduction of the African Great Lakes Observatory network: A new participatory approach for lake management
8	Oberholster	Benthic filamentous Chlorophyceae as indicator tool of water quality in two South African rivers	20	Masson	Human dimensions of aquatic resource governance and ecosystem health in large lakes
9	Quek	Freshwater biomonitoring in Singapore	21	Mwanja	Morphological differentiation and phylogeographical analysis of the Nile perch, <i>Lates niloticus</i> of East African Great lakes and their associated waters
10	Leeben	Future climate trends in north-eastern Europe based on results of the analysis of cyclic variations in a holocene organic matter record from Lake Peipsi	22	Sarvala	Pelagic catch fluctuations of zooplanktivorous clupeid fish in relation to the seasonal abundance variation of their copepod prey in Lake Tanganyika
11	Livingstone	The physical impact of the late 1980s climate regime shift on Swiss lakes and rivers	23	Ubeda Sanchez	Climate-driven trends in the bio-optical variability of Lake Victoria (Africa)
12	Korhone	A quantitative analysis of temporal turnover in aquatic species assemblages across ecosystems	24	van der Knaap	Great Lakes of the World (GLOW)- A journey from Victoria Falls to Lake Tahoe and beyond

Poster Session 2 - Tuesday 17 August 2010

25	Hodgson	Diet changes in pumpkinseed sunfish in response to increased piscivory	38	Grönroos	Regional and local effects on species richness in stream macroinvertebrates
26	Hong	Winter water quality affected by regulated flow in a large river basin	39	Harguinteguy	Myriophyllum aquaticum as aquatic pollution bioindicator of the River Ctalamochita basin: analysis of photosynthetic pigments and heavy metals in leaves
27	Lin	Breeding biology and geographical diversity of miniature peat swamp cyprinids	40	Heino	Spatial dynamics, environmental control and metacommunity structure in stream organisms
28	Paavola	Changes in fish biodiversity and community structure in a boreal headwater stream system- a 26 year perspective	41	Huttunen	Influence of temporal variability on taxonomic completeness of stream macroinvertebrate assemblages
29	Zingel	Protozoa as the food of larval fish in a shallow eutrophic lake	42	Ishida	Depth distribution and productivity of Spirogyra, a filamentous green alga, propagated at the upper littoral area in the north basin of Lake Biwa, Japan
30	Dubovskaya	Hydrobiological review of a lake system of Bol'shezemel'skaya tundra (Russia)	43	Mlambo	Effects of intensive forest biomass harvest on boreal stream ecosystems
31	Holm	The effect of recent climate warming on a high Arctic lake, Svalbard	44	Roblas	Study of macroinvertebrate communities associated with the leaf breakdown process in Mediterranean mountain streams
32	Liljendahl	The mystery of unusual algae blooms in oligotrophic, subarctic lakes - presentation of a multidisciplinary research project in 2010-2012 in eastern Lapland	45	Schletterer	Evaluation of ecological compensatory measures related to the run-of-river power plant Langkampfen (Austria)
33	Nogueira	Comparative study of large hydropower reservoirs in the river the La Plata basin (Brazil, Argentina, Paraguay and Uruguay)- a macro ecological approach	46	Terai	Comparison of humic substances in mountain streams among different watershed vegetations
34	Okogwu	Towards understanding factors regulating seasonal phytoplankton variability in two shallow tropical lakes, southeast Nigeria	47	Jurkiewicz-Karnkowska	Databases (GIS) in hydrobiology- communities of aquatic molluscs in floodplain water bodies of lowland Bug River, eastern Poland
35	Szeląg-Wasielewska	Variability of phototrophs community structure, light regime and water quality in a temperate lake during spring	48	Li	Use of principal component scores in stepwise linear regression models for the prediction of Chlorophyll-a and phytoplankton abundance in a subtropical reservoir in China
36	Wisniewski	Inactivation of phosphorus in three shallow lakes in Poland, using an innovative two-unit device	49	Oertli	Electronic multiple entry key for the identification of aquatic invertebrates- a new tool for nature managers in Switzerland
37	Yokoyama	Vertical distribution of iron and its speciation in lake Fukami-Ike	50	Virtanen	Is temporal occurrence of diatom related to species traits?

Poster Session 3 - Thursday 19 August 2010

51	Adrian	To bloom or not to bloom- Heat waves and contrasting cyanobacteria response	63	Haaland	Increased Hg accumulation in perch - linked to the decline in acid rain deposition
52	Degermendzhi	Structural-functional components of the bacterioplankton community of ecosystem of Siberian salt lake (Shira), Khakasia, Russia	64	Kairesalo	Water quality service for lakes: importance of quality control in automatic monitoring
53	Wenikajtys	The influence of fine sediment entry on physico-chemical characteristics of tributaries of the Our catchment area and their benthic communities	65	Leflaive	Effect of polyunsaturated aldehydes on the ecology of benthic diatoms in freshwaters
54	Bohman	Temperature effects on larval feeding rate and life cycle development in a widespread caddis fly (Trichoptera)	66	Silberbauer	Representing multiple water quality variables spatially-a comparison of groundwater and surface water in South Africa
55	Köhler	Responses of the planktonic lake food web on 90 % P reduction	67	V.-Balogh	Organic substances in turbid soda pans
56	Fujibayashi	Evaluation of food sources quality for pond snail, <i>Bellamya chinensis</i> based on essential fatty acids requirement	68	Harguinteguy	Analysis of <i>Stuckenia filiformis</i> native aquatic plant to assess gradients of heavy metals pollution in Suquia River in the province of Córdoba (Argentina)
57	Aarnos	Quality and dynamics of DOC in a boreal lake and its catchment	69	Morgana	Biferno valley project: a goal-oriented management approach in applying water framework directive and habitat directive in fluvial sites of community interest
58	Ahlgren	Cyanotoxin occurrence in seven Ethiopian rift valley lakes	70	Bird	Land use effects on local environmental conditions and zooplankton in temporary wetlands at Kenilworth, Cape Town, South Africa
59	Barnhoorn	Organochlorine pesticides in sharp-tooth catfish ( <i>Clarias gariepinus</i> ) from three urban impoundments- edibility and human health risk	71	Fukuhara	Invertebrates moving within red snow in the spring time at the Ozegahara Mire, central Japan
60	Barry	Effects of copper, zinc and dragonfly kairomones on growth and morphology of the Arabian toad ( <i>Bufo arabicus</i> )	72	Dole-Olivier	Hyporheic refuge hypothesis in situ flow manipulations for assessing the vertical migrations of invertebrates
61	Esteves	Application of an Index of Biotic Integrity (IBI) based on fish communities to assess rural and urban land uses on a stream in Southeastern Brazil	73	Lee	Eco-toxicological risk assessment of 1,4-Dioxane, Perchlorate using embryo of African Frog ( <i>Xenopus laevis</i> )
62	Goldyn	The influence of urban storm water on the water quality and macroinvertebrates in small river	74	Rocha	<i>In situ</i> monitoring of carbon dioxide flux at hydroelectric reservoirs in Brazil: the case of APM Manso
			75	Guan	The role of submerged macrophytes <i>Vallisneria spiralis</i> on phosphorus cycling between overlying water and sediment

We sincerely hope that you had a rewarding time and experienced something of this wonderful continent and country. We also wish you a safe return and till we meet again at the 32<sup>nd</sup> Congress in Hungary.

“Tsamaya ka Kghotso”





