

HRWM NEWS

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International
Water Association

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WaterMicro 2011 Symposium

Summary of the 16th International Symposium on Health-Related Water Microbiology

The 16th International Symposium on Health-Related Water Microbiology (WaterMicro 2011) was held September 18-23, 2012 in Rotorua, New Zealand. The symposium was attended by approximately 180 delegates representing over 40 different countries. The event featured over 70 oral presentations and approximately 80 poster presentations on topics including viruses, microbial source tracking and technology, microbial risk assessment, catchment protection, recreational water and health, epidemiology of waterborne disease, novel ideas and emerging techniques, water and sanitation in developing countries, and a special session on climate change and natural disasters. The meeting also featured two workshops; International Catchment Microbial Modeling and Extreme Events.

A unique feature of the symposium was that it was held in conjunction with the Diffuse Pollution Specialist Group of the IWA. This was the first effort of IWA specialist groups conjoining their symposia. Joint features included an oral session for attendees of both groups, access to poster viewings for both groups, combined social opportunities during lunches and breaks, and evening social activities for members of both groups. Overall feedback garnered that it was a good experience for attendees to interact and learn from each other. Experiences in organizing joint symposia will be compiled for the future use of IWA specialist groups.

Symposium attendees had the opportunity to learn about New Zealand culture and politics in relation to diffuse pollution and health-related water microbiology from keynote speakers Dr. Jan Wright, Parliamentary Commissioner for the Environment and Dr. Russel Norman, co-leader of the Green Party of Aotearoa, New Zealand.

The New Zealand landscape provided a beautiful destination and many opportunities for sightseeing and travel adventures. In addition, the New Zealand and Maori cultures provided for fascinating entertainment including a welcome reception at the historic Blue Baths in the Government Gardens of Rotorua, a special Mihi (welcoming by the Maori people), a Maori dance and musical performance, and a special experience of the Maori culture at the Gala Dinner held at the Tamaki Maori Village where the new HRWM Chair, Gertjan Medema, led several of our male colleagues in the Haka (traditional war cry dance of the Maori people).

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Sunrise over Rotorua, New Zealand. Photo M. Verhougstraete.

Important Dates

May 13-18, 2012

World Congress on Water, Climate and Energy, Dublin, Ireland

July 1-5, 2012

Singapore International Water Week Water Convention, Singapore

July 10-13, 2012

International Young Water Professionals Conference, Budapest, Hungary

September 16-21, 2012

IWA World Water Congress & Exhibition, Busan, Korea

September 15-20, 2013

WaterMicro 2013 Symposium, Florianópolis, Brazil.

Business Meeting

Please see the 'HRWM Business Meeting Summary' section on page 3 for information regarding the 2011 Business Meeting.

HRWM will hold its next annual business meeting during the 2012 IWA World Water Congress and Exhibition in Busan, Korea. Date and location are to be determined. Please look to the HRWM website (www.iwa-microbiology.org) for further information.



Government Gardens in Rotorua, New Zealand. Photo P. Smeets.

WaterMicro 2011 Symposium (cont.)

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Some of the key findings reported at the WaterMicro 2011 Symposium were:

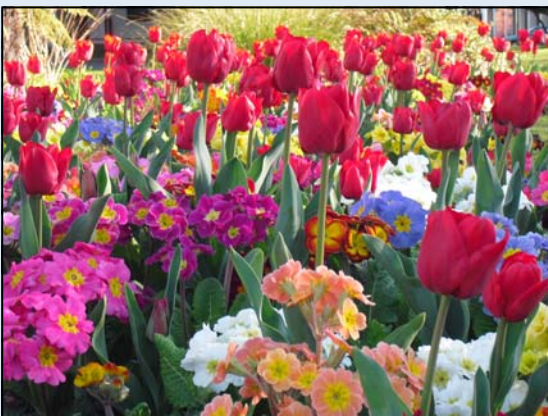
1. Methods can be identified for assisting countries suffering infrastructure damage and HRWM as a group can assist in ensuring 'safe' drinking water.
2. The combination of mathematical modeling and microbial monitoring in river catchments is a growing area of need for all countries.
3. Simplification of QMRA and its application (quick assessment of bacteria, viruses and protozoa) is a work in progress.
4. Online 'do it yourself' QMRA tools have been developed for use.

Extreme Events were identified as a hot topic and it is suggested that this topic be discussed amongst other IWA specialty groups. IWA and international agencies should be aware of what the HRWM group can offer in assistance for national disasters (pre, during and post) in terms of microbial levels in drinking water and the understanding of catchment modeling of microbes.

A special thank you to the conference chair Dr. Marion Savill, local organizing committee, planning committee, onCue Conference Services, presenters, session chairs, and all delegates for making the 16th International Symposium a success. Materials from the symposium are available online at www.hrwm2011.org.

Call to host WaterMicro 2015

Are you interested in hosting the 2015 HRWM Symposium? If so, please email your interest to the HRWM board at hrwm@msu.edu. You will then be sent details on submitting a full proposal and budget outline. The deadline for proposals is April 1, 2013.



Spring Flowers, Rotorua, New Zealand. Photo R. McNinch.

HRWM 2011 Business Meeting

Notes following the HRWM Business Meeting held on September 22, 2011 in Rotorua, New Zealand.

Elections

The 2011 HRWM business meeting opened with elections for Vice Chair and the 2013 Symposium destination. Please see the 'Elections' section to the right for further information.

Secretary Report

HRWM Secretary, Dr. Hiroyuki Katayama gave a brief overview of the HRWM finances and Bursary Award program. The group reported 21,000GBP in the account prior to the 2011 HRWM Symposium. The bursary program is funded through allocation of half of the total HRWM finances for the year of a Symposium. The program awarded 3 scientists and 2 students with Bursary Awards to attend the HRWM Symposium in Rotorua, New Zealand. The group foresees being able to continue the bursary program through the 2013 Symposium but additional funding will be needed to continue the program into the future. HRWM Symposia are not designed to make a profit, thus the group has no current means of generating funding. Further discussions will continue amongst the board regarding the future of the bursary program.

Vice Chair Report

Vice Chair, Dr. Gertjan Medema reported on the past business meeting in Montreal in September, 2010 and the IWA specialist group leaders meeting. Of note was the effort by IWA to better define the mission of the 'task groups', 'working groups' and 'clusters', the continued use of the IWA Waterwiki and the use of the global water platforms.

Chair Report

HRWM Chair, Dr. Joan Rose discussed the ongoing efforts to improve communication between the HRWM board and members while working within the constraints set by IWA. Dr. Rose also briefly discussed the processes for running for board and office. In her new role as Past Chair, Dr. Rose will head a new nominations committee to encourage members to run for board/office in the future.

Other Business

Assistant Secretary, Rachel McNinch announced the results of the ongoing logo contest which indicated further improvements were necessary. The group is working on another round of options and will hold another round of voting in the coming months.

Dr. Paul Hunter discussed the current state of the Journal of Water and Health detailed further in the 'Journal of Water and Health Update' on page 6. Ms. Bettina Genthe of the IWA-HRWM Willie Grabow Young Investigator Award committee reported on the success of the first round of the application process and appreciation to IDEXX Laboratories, Inc. for their continued support of the HRWM specialist group through this award.

Continued on page 4

Election Results

Congratulations to Dr. Marion Savill who was elected as the new Vice Chair of the HRWM specialist group. Dr. Savill will serve HRWM for 6 years total: 2 years as Vice Chair, followed by 2 years as Chair, and 2 years as Past Chair. Dr. Savill has served HRWM in the past as Secretary and as a board member. Dr. Joan Rose will shift from Chair to Past Chair for the next 2 years and Dr. Gertjan Medema will shift from Vice Chair to serve as Chair for the next 2 years. A thank you to Dr. Christobel Ferguson who also ran for the position of Vice Chair.

Brazil has been elected to host the WaterMicro 2013 Symposium. The Symposium will take place September 15-20, 2013 in Florianópolis, Brazil. Please view details regarding WaterMicro 2013 on page 10. Brazil was the only country vying to host the next Symposium.

Voting for Vice Chair and the WaterMicro 2013 destination took place online prior to the WaterMicro 2011 Symposium and in person voting took place at the business meeting held on Thursday September 22, 2011 in Rotorua, New Zealand in conjunction with the WaterMicro 2011 Symposium.



Marion Savill, PhD

Catchment Microbial Modeling Workshop: The “Rotorua Declaration”

Summary of the Catchment Microbial Modeling Workshop held at WaterMicro 2011

Contributing Authors: Graham McBride, NIWA, New Zealand and David Roser, Water Research Centre, Australia

Mathematical modeling techniques have been used for many years to estimate water quality changes with respect to nutrients and sediments. The gradual application of these techniques to microbial variables has led to the use of catchment microbial models to compare predicted aquatic concentrations of fecal indicator microorganisms and pathogens with water quality criteria and standards. More recently these techniques have begun to support the emergence of quantitative microbial risk assessment (QMRA) as a process that uses predicted pathogen concentrations in recreational waters, drinking water supplies and shellfish production areas. However the application of these modeling frameworks to environmental systems is far from straightforward, and constrained in many cases by the lack of quantitative microbiological data. More importantly, the acceptance of the approach by regulatory agencies, while growing, is far from assured.

The “Rotorua Declaration” seeks to identify some structure and direction for this increasingly important topic – catchment microbial modeling – so that its results can better inform development and implementation of public policy. That includes dialogue between modelers and policy-makers to determine how best to meet the policy need. The Declaration highlights the need for: (i) real-time predictions at key water-use sites, (ii) characterisation and prediction of the effects of BMPs (Best Management Practices); (iii) enhanced understanding of complex indicator-pathogen relationships in both developing and developed nations waters; (iv) integration with other catchment and near-shore models and human health models. Some parameterization requirements were also identified. The “Rotorua Declaration” was endorsed unanimously by some 60 delegates at the Workshop and can be viewed at <http://www.on-cue.co.nz/hrwm2011/>.



HRWM 2011 Business Meeting (cont.)

(continued from page 3)

The high quality of the bi-annual HRWM Newsletter compiled and edited by the HRWM Assistant Secretary, Rachel McNinch was noted. Appreciation was also given to Vice Chair, Dr. Gertjan Medema and KWR Watercycle Research Center for hosting the HRWM website and making the recent updates to the website to match the IWA theme and format.

Upon conclusion of the meeting, Dr. Medema recognized Dr. Rose for her many contributions and service to the HRWM specialist group as Chairperson from 2003-2011 where in she helped to establish the current structure of the group and its leadership. The group presented her with two gifts; a special coffee mug marking her years of service as chair and a toilet seat featuring her collection of sanitation covers from around the world. Dr. Medema encourages members to contribute to Dr. Rose’s collection.

Top: Dr. Gertjan Medema presents Dr. Joan B. Rose with a mug indicating her years of service as HRWM Chair from 2003-2011. Photo P. Smeets. Bottom: Dr. Rose poses with her toilet seat featuring her collection of sanitation covers from around the world. Photo R. McNinch.

Extreme Events Workshop

Summary of the Extreme Events Workshop held at WaterMicro 2011

Contributing Authors: Rachel M. McNinch and Marion Savill

The Extreme Events Workshop focused on how such disasters affect water quality and aimed to identify how the international expertise of the HRWM members could assist communities and countries protect public health. The idea for the workshop came following several recent natural disasters, specifically the 2011 earthquakes in Christchurch, New Zealand and the 2011 earthquake and resulting tsunami that struck Japan. Presentations were given on several natural disasters from different countries including Hurricane Katrina (United States), the Haitian earthquake and subsequent cholera outbreak, the Chinese earthquake, the Christchurch earthquake (New Zealand), the Japanese earthquake, Tsunami and radio-active leaks, the Spanish earthquake and the Queensland floods (Australia). Presenters discussed what happened, how the water was affected (waste and drinking) and what assistance would have helped them to prepare and cope with assessment and restoration.

Following the presentations approximately 50 delegates participated in an open discussion to develop a strategy of how the HRWM group could assist countries in the future pre, during, and post natural disasters. Some of the key needs identified were: (i) to better ensure that international groups are aware of the expertise within HRWM and how to contact the group for assistance; (ii) fact sheets, checklists, reports, and emergency plans to aid in natural disaster preparedness; (iii) further development of (affordable) mobile labs; (iv) training opportunities, and; (v) developing response measures in addition to preparedness and recovery measures.



HRWM members work together to brain storm potential strategies for aiding in natural disasters in the future. Photo P. Smeets.



HRWM members present their ideas for aiding in future natural disaster response, preparedness, and recovery efforts. Photo R. McNinch.

Two key questions that were brought up by the group were: How do you know when a system has returned to its normal state? and Do you assume the water is unsafe until told otherwise? These questions raised the need for increased monitoring to establish a knowledge of baseline or 'normal' levels as well as the need for continuous monitoring following extreme events.

The group is working on a brief strategy report for submission to IWA and has recommended that other IWA specialist groups hold similar workshops to identify their role in natural disaster preparedness and relief as well.

If you are interested in taking a leadership role in the HRWM extreme events report please contact Marion Savill at marionsavill@xtra.co.nz.

Journal of Water and Health

Summary of the current state of the Journal of Water and Health

Dr. Paul Hunter (UK) presented a brief overview of the Journal of Water and Health during the HRWM business meeting. In addition to Paul, current editors of the Journal are Morteza Abbaszadegan (USA), Maria A. Efstratiou (Greece), In S. Kim (Korea), Mark J Nieuwenhuijsen (Spain), and Steve Pedley (UK).

The current impact factor of the journal (2010) is 1.625 (up from 1.469 in 2009) and it ranks 7th out of 30 journals with 'water' in the title. In 2010 276 papers were submitted (up from 203 in 2009) and 76 papers were published (compared to 64 in 2009). The acceptance rate for 2010 was 28.5%. This is a 6% decrease from 2009 and the lowest acceptance rate in the journals history. This decrease is expected though with the increase in submissions.

A primary issue with the journal is the current lag time between submission, acceptance, and publication. In 2011 the average time to acceptance was 6 months and the average time to publication post acceptance was 3 months to print and 4 months to online. To more efficiently manage the review process of submissions, the HRWM board has proposed the addition of a role of Editor in Chief for the Journal and nominated Dr. Hunter for this position. The HRWM board foresees that with improved organization of the Journal's editorial staff the average time to acceptance will decrease in the coming year.

Those who presented at the HRWM Symposium in Rotorua are encouraged, if they have not yet done so, to submit full manuscripts of their presentation topics to either the Journal of Water and Health or the Journal of Water Science and Technology's publications (Water Science & Technology, Water Science & Technology: Water Supply, and Water Practice & Technology). Please note all submissions will undergo normal review procedures.

Recommended Reading

Water Quality Set

B Escher and F Leusch; B Breach; WHO; S Ahuja. 2012.
ISBN: 9781780401201

Valuing Water, Valuing Livelihoods: *Guidance on Social Cost-benefit Analysis of Drinking-water Interventions, with Special Reference to Small Community Water Supplies*

J Cameron, P Hunter, P Jagals, K Pond (Eds.) 2011. ISBN: 9781843393108

KWR Drinking Water Treatment Set

W Hijnen, GJ Medema, PWMH Smeets, J Vreeburg, B Wols. 2011.
ISBN: 9781780400488

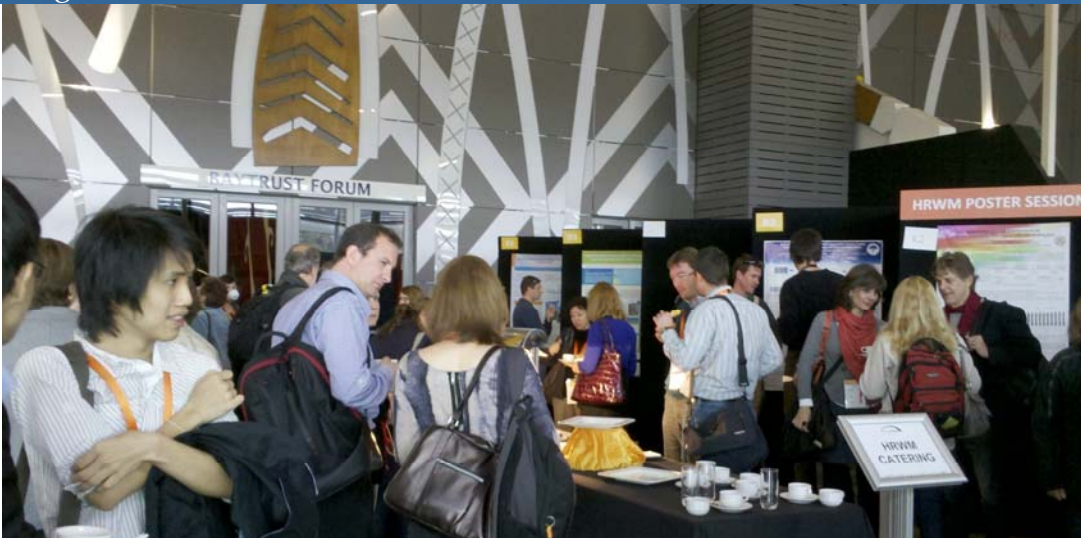
Bursary Awards

Congratulations to our 2011 Bursary Award recipients who were featured at the WaterMicro 2011 Symposium in Rotorua, New Zealand: Celia Berardi and Vanessa Moresco (student-scientist team, Brazil), Cornelius Carlos Bezuidenhout (scientist, South Africa), Nicholas Kiulia (student, Kenya), and Mayuna Srisuphanunt (scientist, Thailand). Bursary awards are given to students and scientist going to school and/or working in developing countries/regions.

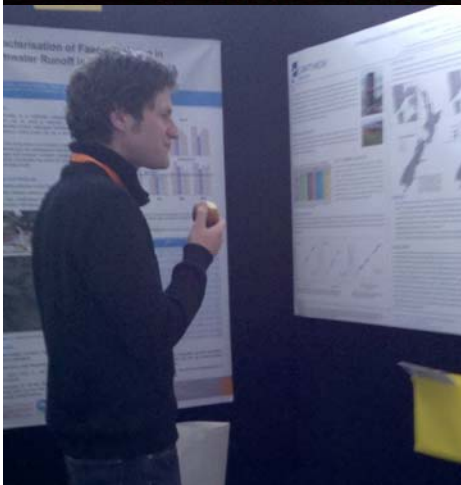
Young Investigator Award

Dr. Masaaki Kitajima was the first recipient of the IWA-HRWM Willie Grabow Young Investigator Award. Dr. Kitajima received the award in recognition of outstanding research in the HRWM field. He received his Ph.D. in urban environmental engineering from the University of Tokyo in March 2011 and is currently a postdoctoral fellow working with Dr. Charles Gerba at the University of Arizona. Dr. Kitajima presented his work on "Molecular Epidemiological Analysis of Noroviruses, Sapoviruses, Aichi Viruses in Wastewater and River Water in Japan" during the WaterMicro 2011 Symposium.

The HRWM group was honored to have Dr. Willie Grabow attend the Symposium in Rotorua, New Zealand and present Dr. Kitajima with a plaque honoring his achievements at the Gala dinner. Professor Grabow and Dr. Kitajima were accompanied by Dr. Manja Blazer representing IDEXX Laboratories, Inc. which generously sponsors the award.



P. Smeets





P. Smeets

P. Smeets





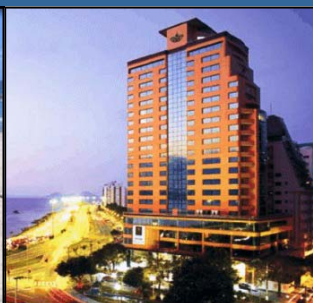
Rap, Raft 'n' Rock



Rap, Raft 'n' Rock

P. Smeets





WaterMicro 2013

Florianópolis, Brazil

Venue:

Majestic Palace Hotel

Dates:

September 15-20, 2013

Organizers:

CETESB, University of São Paulo, FIOCRUZ, Federal University of Santa Catarina, and AIDIS

Topics:

Water pollution and diseases; Microbial source tracking; Catchment protection; Water reuse and health concerns; Biofilms studies; Water and sanitation in developing country; Climate change and water quality; Recreational water and health; Epidemiology of waterborne diseases; Microbial risk assessment; Microbial quality of shellfish growing areas.

Technical Tour:

Oyster marine farms:

Florianopolis provides the Brazilian economy with approximately 80 percent of its oyster production. Aid programs for the creation and maintenance of a healthy seafood culture are developed at Federal University of Santa Catarina. Sea food is the base for most of the typical dishes and follows the traditions of the Portuguese Azorean people who colonized the island.

Entertainment:

Florianópolis is the island of one thousand charms, featuring gorgeous beaches, islands, lagoons, dunes, historic buildings, and nature sports – a true entertainment park at open sky. Sea food is part of the local gastronomic culture, from the most exotic options to the refinement of the best international cuisines.



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(The Netherlands)

Vice Chair:

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