Health-Related Water Microbiology IWA Specialist Group

HRWM News

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International Water Association

In this Issue

www.iwa-microbiology.org

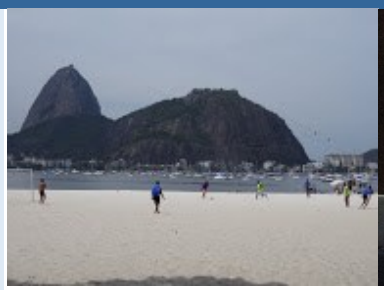
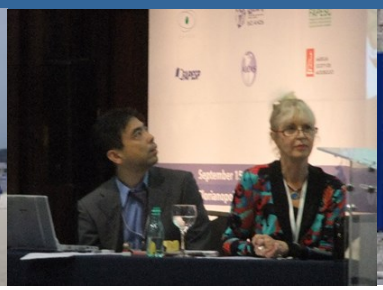
WaterMicro 2013

Florianópolis, Brazil

The WaterMicro 2013 took place at the Majestic Palace Hotel on September 15-20, 2013. The four days of sessions included updates on methods, viruses, parasites, risk assessment, source tracking, shellfish risks and drinking water safety. WHO ran two successful workshops on the fifth day.

WaterMicro 2013 in numbers	Number
Participants	233
South American	88
Students (South American)	77 (42)
Mini-Course: How to Get Your Research Published	26
Workshop: Impact of Climate Change on Health	29
Countries	36
Abstracts submitted	249
Oral presentations (Symposium Sessions + WHO Workshop)	90
Keynote Speaker Presentations	10
Poster Presentations	145

Congratulations to Dr. Maria Inês Sato and Dr. Célia Barardi and their organizing team!


Bursary winners

Three bursaries were awarded to students/researchers from a lower income country to support the presentation of their work at Watermicro 2013.

Aida Juliana Martínez
Universidad de los Andes, Colombia

Quantification of Bacillus cereus in biofilm- water of household drinking water network and its probably incidence on health.

Beatriz Casasola
Universidad Nacional Autónoma de México

Molecular monitoring of ozone disinfection efficacy using propidium monoazide in combination with quantitative PCR to evaluate the viability of the ozone disinfection process of water contaminated with H. pylori in the VNC state.

Camilo Venegas B Pontificia
Universidad Javeriana, Colombia

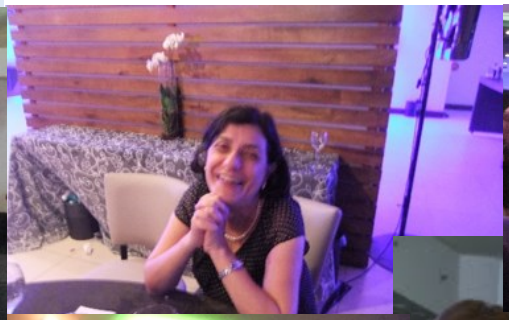
Evaluation of microbial source tracking in wastewater treatment plants and cattle slaughterhouses in Bogota – Colombia.

WaterMicro 2013 — Summary

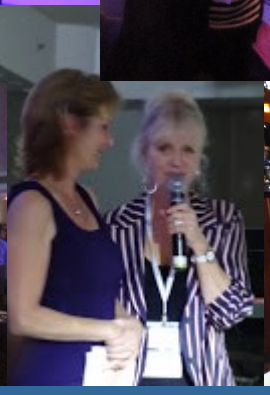
- The Symposium met the objective to improving the attendance of South American participants (academics, professionals and students) which reached 38%. This was very important to consolidate the researchers in water microbiology in the region and to improve the interchange and cooperation among these countries and also with other research teams from HRWM Group strengthening this Specialist Group from IWA.
- Microbial Source Tracking and Quantitative Microbial Risk Assessment were the two 'hot' topics in this meeting, showing their importance in research as well as for decision makers.
- The two workshops organized with the World Health Organization highlighted the important impact of the groups knowledge on microbial monitoring and QMRA.
- The financial support of Grant Agencies from Federal (CAPES and CNPq) and State (FAPESP) Government was essential for the organization and success of the Symposium.
- The venue for WaterMicro 2015 was elected: Lisbon, Portugal.
- Our new Vice Chair is Dr. Gary Toranzos and new Secretary is Dr. Rosina Girones.
- Dr. Marion Savill took over as Chair and Dr. Gertjan Medema has become Past Chair

Maria Inês Sato and Célia Barardi (Symposium Chairs)

Bursaries awarded by Hiroyuki Katayama to Aida, Beactrice and Camilo








Message from the Chair

Firstly I would like to thank those of you who sent me messages of support for this new role (for me) of Chair of the Health Related Water Microbiology. It is a vibrant group which is one of the lively Specialty Groups of IWA.

The HRWM Board and I will work together and develop a strategic plan for the next 5 years where all members can have an influence. IWA has been developing three tools which we can join into if we see value and work together on a problem. They are Task groups, Working groups and Clusters. The Clusters particularly focus on different themes where different Specialty Groups add their specialty and jointly produce a multidisciplinary approach to a problem. Benefits can be the subsequent opportunity to bid for new sources of funds and the development of multifaceted solutions to problems which previously went unrecognized. The Board will be working with members to decide where and how we should contribute. The HRWM group has always had an excellent networking approach. This will now allow HRWM to tap into the network strength offered by the whole of IWA in a formal manner. Our Secretary, Rosina Girones is reporting on all three IWA tools in this issue.

I have just returned from a combined IWA- Public Utilities Board (PUB of Singapore) meeting where all the disciplines of IWA are represented and in most of the 5 tracks covered by this meeting, Health (our group's focus) was important. We have links into many IWA groups and need to find the paths to work together assisting in both our resolution of issues and access to funding. We (HRWM group) need to classify our main core strengths, identify where we see the future, determine our next challenges for the future, find ways of resolving them, pinpoint other skill bases we need and how we will obtain them.

We, the Board, are looking forward to working with you to achieve these goals.

Marion Savill

Grabow Young Investigator Award Recipient

The 2013 IWA-HRWM Grabow Young Investigator Award recipient is Tobias G. Barnard from the University of Johannesburg, SA.

Mr. Barnard was selected for the award based on his outstanding research in the field of health-related water microbiology, specifically in developing countries. The award, generously sponsored by IDEXX Laboratories, Inc. was awarded at Watermicro 2013 and consists of a stipend for travel, lodging and registration costs to attend WaterMicro 2013.

The Young Investigator Award was established in honor of Professor Willie Grabow, a brilliant environmental virologist whom has dedicated part of his professional life to implementing the IWA and specialist group concept, and giving technical / scientific support to developing countries in the environmental microbiology field and continues to inspire emerging scientists.

The Award committee members are Dr. Bettina Genthe (S. Africa), Dr. Andreas Farnleitner (Austria) and Dr. Alexandria Boehm (USA).

Dr. Tobias Barnard receives the award from Manja Blazer (IDEXX) and award committee chair Bettina Genthe

WaterMicro 2015

Lisbon, Portugal

Proposed Dates:
September 20-25, 2015

Location:
'Lisbon has a different light'. Millions of tourists visiting Lisbon each year affirm that 'Lisbon has a different light'. Sunshine is present during almost the entire year, which combined with the beautiful Tejo River transform the city into a thousand colors pallet - making the city memorable for its unique beauty and architecture.

Venue:
The venue would be at the congress center at Instituto Superior Técnico which offers an Auditorium with 300 seats fully equipped with the most modern sound and image technologies and also four congress rooms with variable capacity from 20 to 80 people. There will be free wi-fi available in all areas of the university.

Travel/Entertainment:
So many things can be seen and done in Lisbon, that visitors have a broad array of experiences. Walking through Lisbon - whose history dates back a thousand of years - one can see its quintessential neighborhoods where the city was born and from where it has developed and which can still be experienced at its most genuine level. Cross the streets replete with heritage monuments that transports you into the Discovery Era. Visiting Lisbon with the Tejo riverfront connecting the old part of city, Belem, to the newest part, Parque das Nações where the visitors can enjoy of several leisure activities. Practice sports and be delighted with some of the most beautiful beaches of the world.
Experience bucolic moments in Lisbon's city parks, gardens, belvedere, esplanades and cafes during the day and by night explore the amazing nightlife which continues till dawn. Or just savor the pure pleasure of being in Lisbon, through its well-renown gastronomy. Lisbon. An intimate experience.

Themes:
The Symposium would focus the most up-to-date and relevant themes in the health related water microbiology area. The themes include Microbial Source Tracking, Microbial Risk Assessment, Emerging Issues, Epidemiology of waterborne diseases, and Microbial Quality of shellfish growing areas, among others.

Local Organizing Committee:
Ricardo Santos , Silvia Patricia Nunes Monteiro

HRWM and digital/social media

HRWM website: www.iwa-microbiology.org

The HRWM groups website has been remodeled and upgraded to match the design of the IWA website. The news from the group is now put center stage on the home page. The website is visited by 10-30 visitors daily. The weeks prior to the Florianopolis symposium more visitors visited the website.

HRWM Facebook

After the Watermicro2011 conference in Rotorua, a HRWM facebook page was initiated by Jessica Boricua of Gary Toranzos' research team. You can find it on Facebook by searching for the Health-Related Water Microbiology page. Members are posting group and science information. You are invited to join!

HRWM LinkedIn

Prior to the Watermicro2013 conference in Florianopolis the group has also started a LinkedIn group to share news and ideas between the HRWM group members and provide a platform for interaction between group members. Please join the LinkedIn group and share your news and ideas here.

The rise of the social media and the different platforms ask for a clear strategy for the group: what media do we use in our group for which type of communication? The steering committee is developing such a strategy and will communicate that to the members (via all available media).

Communicable diseases?

Journal News

Submission to the Journal of Water and Health is increasing, the rejection rate is 75 %.

Impact Factor remains stable, and ranking is going up. Since open-access journals tend to increase IF, JWH has some difficulty in this regard.

Time to publication online is a month after acceptance

JWH recently recruited a new editor: Susan Peterson.

A new policy was proposed at WaterMicro2013 by Paul Hunter and agreed to by members: paper research in developing country should include at least one author from the country.

www.iwaponline.com/jwh/

Conferences

31 March - 2 April 2014
Rapid Methods Europe 2014 Food Feed Water Analysis
The Netherlands
www.bastiaanse-communication.com/RME2014/

5 - 9 May 2014
Water Microbiology Conference
Chapel Hill, USA
watermicroconference.web.unc.edu/

11 - 13 May 2014
The 6th international biofilm congress
Vienna, Austria
biofilm6.univie.ac.at/home/

26 - 30 May 2014
11th IWA Leading Edge Conference on Water and Wastewater Technologies, LET 2014
Abu Dhabi, UAE
www.iwahq.org/26d/events/iwa-events/2014/let2014.html

1 – 5 June 2014
SIWW WATER Convention 2014
Singapore
www.siww.com.sg/water-convention

19 - 21 June 2014
5th International Slow Sand and Alternative Biological Filtration Conference
Nagoya, Japan
5ssabc.jp/en/index.html

21 - 26 September 2014
IWA World Water Congress
Lisbon, Portugal
www.iwa2014lisbon.org

20 - 25 September 2015
IWA-HRWM Watermicro 2015
Lisbon, Portugal

IWA Specialist Groups Leaders Forum—Empowering SGs

The IWA secretariat has organized the IWA Specialist Groups Leaders Forum the 7-8, November 2013 in Valencia, Spain, with Jean-Luc Bertrand-Krajewski as a Chair and the IWA organizers Enrique Cabrera and Hong Li. Rosina Girones, HRWM Secretary, represented our Specialists Group.

The main objective has been to have the opportunity for IWA Specialist Group leaders to communicate with each other and with IWA office, as well as discuss issues relating to Specialist Groups (SG) activities, IWA strategies and linkage with all other IWA vehicles. The SG Leader Forum is not only aiming to improve the cooperation among the IWA SGs and the IWA secretariat, but it will also be focusing on the long-term SGs strategic planning, improved secretariat supports to SGs, consultation of IWA's strategic plan 2014-2018, and cross-links among SGs, etc.

The main objectives of the meeting have been:

- To exchange experiences on activities, showcase SGs, TGs, WGs and Clusters, and discuss on cross-linking of groups.
- To update group leaders on IWA's on-going activities and new initiatives, and to discuss on how to better engage the SGs and/or IWA specialists in these activities.
- To consult SG leaders on IWA next strategic plan 2014 -2018.

New tools for cooperation between SGs have been suggested and discussed. In addition to Task groups (TG) and Working groups (WG) that are useful structures for cooperation in a SG, IWA Clusters incorporating key members of different SG and outside IWA if necessary, are been structured and until now four have been proposed: IWA Cluster on Resource Recovery, IWA/ISME Bio Cluster, IWA Networks Cluster and IWA Alternative Water Resources Cluster. The possibility of establishing more informal "coalitions" between different SGs to organize joint evens or other activities was also introduced and briefly discussed.
IWA secretariat has suggested a role of IWA for the coordination in different programs and projects that will need to be externally funded. IWA may contribute to the big projects of the members connecting partners and in communication and dissemination activities.

AquaRating has been introduced as a new service, a new rating system for water facilities. At the present a pilot version in Spanish has been produced and in 2014 it is expected that an English version will be available. Different parameters related to the quality of the service offered in water facilities will be quantified by answering on line the questionnaires and having also external auditory.

Research Spotlight

Microbial Source Tracking

Findings of an international multiple laboratory comparison study of 41 microbial source tracking methods was just published in a special issue of Water Research. The special issue contains 12 contributions, in which many of our group members were involved, ranging from comparison of current technologies to the establishment of standardized operating protocols. MST is an important tool in establishing and monitoring watershed microbial quality. A great number of these methods are based on published *Bacteroidales* assays and others involve bacteriophages and viruses; all methods were tested by one to seven laboratories in a single-blinded study that involved 27 laboratories from 7 different countries. Specific assays to identify and quantify human-, ruminant-, canine- and gull-associated feces were evaluated side by side. The papers show the need for normalization and standardization of methods before they can be applied in watershed-wide MST studies. They also lead the way in striving for method equivalency and define the steps needed to reach the goal of assigning percent fecal host contribution in an unknown sample. Adapted from editorial in Water Research

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Research Spotlight

The Joint Danube Survey 3

An international research endeavour to raise awareness of water quality issues on Europe's second longest river

The Joint Danube Survey 3 (JDS3) is the world's biggest river research expedition in 2013, the UN International Year of Water Cooperation. JDS3 catalyzes international cooperation from all 14 of the main Danube Basin countries and the European Commission, coordinated by the International Commission for the Danube River (ICPDR). This year's JDS was the third of its kind after JDS1 in 2001 and JDS2 in 2007. For six weeks between August 13 and September 26, 2013, three JDS3 research vessels travelled 2,375 km downstream the Danube River, from Germany through 10 countries to the Danube Delta. The main objectives of JDS 3 were (1) to ascertain the ecological status of the Danube based on the European Union Water Framework Directive (2) to collect information on parameters not covered in on-going monitoring, (3) to provide readily comparable data for the entire river measured in one laboratory and (4) to promote the work of the ICPDR and raise awareness for water quality management. An international Core Team of 20 scientists from 7 countries was responsible for sampling, sample processing and on-board analyses. Investigations included biology (fish, phytoplankton, macrozoobenthos, phytobenthos, macrophytes), hydromorphology, chemistry and microbiology. Samples were taken at 68 sampling sites along the river.

The overall microbiological investigations are headed by Alexander Kirschner (Medical University Vienna, Austria) and Andreas Farnleitner (Vienna University of Technology, Austria). The on-board core-team members were Stefan Jakwerth (Medical University Vienna), Stoimir Kolarevic (University of Belgrade, Serbia) and Georg Reischer (Vienna University of Technology). Microbiological investigations included pollution microbiology (faecal indicators *E. coli*, intestinal enterococci, *Clostridium perfringens* and faecal source tracking markers) and microbial ecology (bacterial numbers, bacterial heterotrophic production, deep amplicon sequencing of bacterial community structure). The main objectives were the investigation of anthropogenic influence on river water quality and its effect on bacterial community composition.

Further information can be found at the JDS3 website (http://www.danubesurvey.org) and the website of the Interuniversity Cooperation Center Water & Health (http://www.waterandhealth.at)

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