

# NEWS

# &information

IAH - THE WORLD-WIDE GROUNDWATER ORGANISATION

Furthering the understanding, wise use and protection of groundwater resources throughout the world

## AUGUST 2017

Also in this issue:

- From the President
- Commissions & Networks
- Meeting reports
- Chapter updates
- New members
- Conference listing

and the usual IAH announcements and news



IAH Secretary General Bruce Misstear made a short liaison visit to Croatia, returning with glowing reports of the progress that the Organising Committee is making and of the idyllic location. Book now to avoid disappointment! *Page 26*



Name.....

Address.....



### NEW DEGREE COURSE AREA ON IAH WEBSITE

We are pleased to announce that we are compiling a new “degree course” area on the IAH website...

*Page 14*



### YOUR OPINION COUNTS - IAH SURVEY 2017

We are currently undertaking a survey to seek opinions, feedback and ideas. Find out more...

*Page 13*



**INTERNATIONAL  
ASSOCIATION OF  
HYDROGEOLOGISTS**

#### CONNECT



<http://iah.org>



Follow IAH groups on LinkedIn

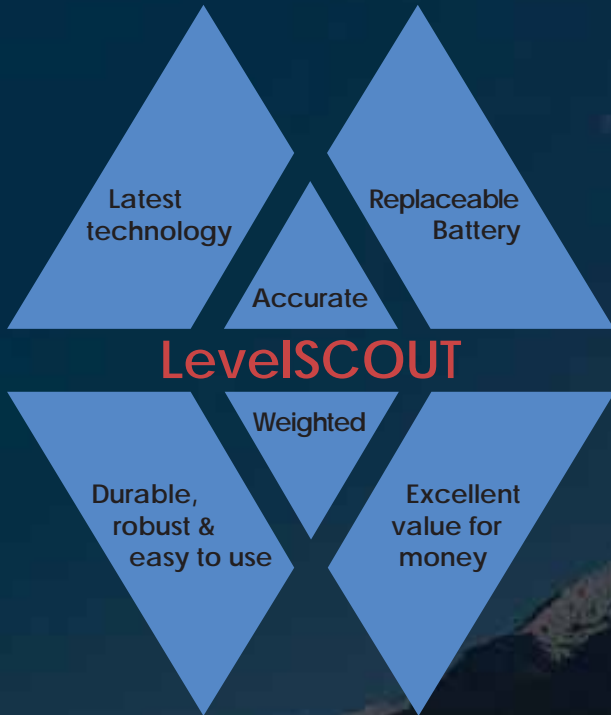


[www.facebook.com/iah.org](http://www.facebook.com/iah.org)



@iahgroundwater

AUGUST 2017



# LevelSCOUT

Level Logger of Choice

A research grade data logger for measuring and recording groundwater level and temperature.

Ranges up to 200 m. Available in stainless steel or titanium from



**VAN WALT**

monitoring your needs

## Contact us:



+44 (0)1428 661 660  
sales@vanwalt.com



+ 34 93 590 00 07  
ventas@vanwalt.com



+64 (0)3443 5326  
salesnz@vanwalt.com



[www.vanwalt.com](http://www.vanwalt.com)

# WATERLOO HYDROGEOLOGIC


## Easy-to-Use Environmental Software


Waterloo Hydrogeologic develops and distributes innovative and easy-to-use environmental software solutions. We proudly support environmental professionals, government agencies, and academic institutions around the world by providing our powerful software that offers critical insights into subsurface environments.



### Contact us for information and sales

 [www.waterloohydrogeologic.com](http://www.waterloohydrogeologic.com)

 [sales@waterloohydrogeologic.com](mailto:sales@waterloohydrogeologic.com)

 +1 519-746-1798

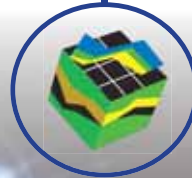
**Visual MODFLOW Flex**  
Groundwater Modeling &  
Simulations



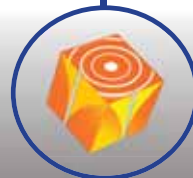
**AquaChem**  
Water Quality  
Analysis



**Hydro GeoAnalyst**  
Environmental Data  
Management & Visualization



**AquiferTest**  
Pumping & Slug Test  
Analysis



**Waterloo**  
HYDROGEOLOGIC

**NX** NOVA  
METRIX

AUGUST 2017

# PICTURE OUR IAH



It's back! Win £100\* with our competition

We continually need to add to our library of photos and over the years have come to realise that the best way of picturing our Association at work is by asking our members. Our Association has to reach out world-wide, to individuals speaking different languages and with different needs and priorities; so often a picture can express something more effectively than words.

We are therefore happy to bring back our photo competition "Picture our IAH", with submissions invited for the following four categories:

1. **Sharing knowledge:** e.g. discussions amongst or someone teaching a group of professionals, students, a team, working to help a community, etc...
2. **Working on-site:** e.g. field work, engineering activities, working commercially...
3. **IAH "family album":** e.g. chapters, commissions and networks, meetings/events, well-known colleagues...
4. **The wonder of groundwater:** e.g. scenic photographs, groundwater being put to good use...
5. **Digital world:** e.g. display of software or graphics in practical use, satellite imagery, 3D models of aquifers, office-based hydrogeologists hard at work...

Winners from each category will receive £100 (or euro/dollar equivalent)\* and a free IAH book of his or her choice. The winning photographs will be used in IAH web and printed material.

## Entry information

This competition is open to all IAH subscribed members (2017 dues paid), with the exception of the current IAH Council and the IAH Secretariat. Entrants may submit up to 2 images for each category and may submit in more than one category, but with a total of no more than 5 images.

High (print) quality images, in colour, should be zipped and sent to [info@iah.org](mailto:info@iah.org). Please give your full contact details and membership number and provide a brief explanation about your photo(s).

The winning photographs will be used for IAH-related publications and its website. IAH will therefore take it in good faith that entrants have considered copyright and privacy issues prior to submitting photographs.

The closing date for entries is 31st August 2017. Winners will be notified by the end of October, and will be announced on the IAH website and in the December edition of News and Information.

## IAH SECRETARIAT



**Entries or questions?** Email [info@iah.org](mailto:info@iah.org)

\* Prize winners will be paid via Paypal where at all possible. Those living in countries/regions where Paypal is not available may be offered alternative method. This is at the discretion of IAH's Secretariat and would be in agreement with the prize-winning individual.



[@iahgroundwater](https://twitter.com/iahgroundwater)

## Learning the ropes...

It's been quite a busy time for me since I joined the Secretariat. I'm very grateful to John Chilton for the time and care he's taken in going through all the tasks with me – and for his patience when I continue to ask for guidance on matters he's already covered.

It's great to be involved in a global movement that promotes better understanding and protection of groundwater at all levels, from education and practical application through to national and global influencing. And I've begun to discover just how much housekeeping goes on in the background to support all of this - in the National Chapters, Commissions, Networks, the Journal, Executive and Council, as well by my colleagues in the Secretariat. I hope that some of their dynamism rubs off on me. It's certainly rewarding having an active involvement in the IAH so if other members are interested in participating more, I'm sure these groups will be pleased to hear from you. As far as possible we include contact details in the newsletter and on our website, so don't be shy!

I would like to know more about what you think works well in IAH and how we can provide more member benefits. Maybe you would like more support for education and career development, or perhaps you have ideas on how we can widen our sources of income to help fund activities. Maybe there are schemes that you run in your National Chapter that we could all learn from. Take part in our online survey (see page 13) - I look forward to hearing from you.

**IAN DAVEY**

 [idavey@iah.org](mailto:idavey@iah.org)



Many of you will be taking a well-earned break at this time of year. All at the Secretariat wish you an enjoyable and peaceful time away from the rigours of work. Those of you involved in organising the Congress in Dubrovnik, and finalising presentations, may find it less easy to take time off of course. We also wish you well and look forward to seeing the results of your hard work in September. For anyone that hasn't yet registered for the Congress, there's still time – but don't leave it too late, as accommodation is filling up quickly!

**SECRETARIAT**

## IN THIS ISSUE

Picture Our IAH competition.....	4
Media Focus.....	6
From Our President.....	8
Cybersecurity.....	9
IAH News.....	10
IAH Reports From.....	16
Commissions & Networks.....	19
Chapter News.....	22
New Members.....	24
Congress Update.....	26
Conference Listing.....	28

## ADVERTISING AND COPY INFORMATION

IAH News and Information is published 3 times a year. It is distributed as an insert in Hydrogeology Journal and is also published via IAH's website and email alerts. It reaches all members and supporters of the International Association of Hydrogeologists – around 8000 people – and can also be freely downloaded by individuals worldwide for personal/ not for profit use.

We are happy to consider possible news articles from our members and others in groundwater-related professions.

We also accept commercial advertisements.

Advertising rates are €300 per full-page advert and €200 per half page. These rates apply for one issue. If you take an advert in two successive issues then the third is offered free of charge.

Corporate sponsors and corporate members of IAH are entitled to 50% off the above rates.

All copy must be provided electronically - please contact [knicholson@iah.org](mailto:knicholson@iah.org) for acceptable formats.

Copy dates are 1 March, 1 June and 1 October.

Email [knicholson@iah.org](mailto:knicholson@iah.org) for further details.

**AUGUST 2017**



# MEDIA FOCUS

A selection of groundwater features from around the world

## RESEARCH: 'FOSSIL' GROUNDWATER'S MODERN SECRET

Although it has been assumed that “fossil” reserves of groundwater found hundreds of metres underground would be largely untouched by modern water sources, the world’s oldest and deepest waters are not immune from contamination. A new isotope study of sampling from some 10,000 wells shows this not to be the case, showing that about half of the deep groundwater has had contact with rains and snows that fell in the past 60 years. And that means the aquifers are also at some risk from pollution if waste disposal and land management practices are defective. It is an issue of significance because fossil waters are an important resource, providing drinking supplies and irrigation for millions of people across the globe.

The results were presented at the recent EGU meeting in Vienna and have been published in the journal Nature Geoscience.

<http://www.bbc.co.uk/news/science-environment-39715738>

## INDIA USES UP MORE GROUNDWATER THAN US AND CHINA

On average, it receives a million cubic metres of rainfall on every square kilometre. But Naujhil block is a declared “dark zone”, that is, its groundwater extraction far exceeds the recharging rate and use of electricity for pumping water is not permitted. Because of heavy withdrawal, the groundwater is very saline now.

<http://timesofindia.indiatimes.com/india/india-uses-up-more-groundwater-than-us-and-china/articleshow/58797399.cms>

## USA: NEVADA WATER LEGISLATION MAY IMPACT GROUNDWATER AND ECOSYSTEMS

Environmental groups expressed grave concerns today in a hearing of the Nevada Senate Natural Resources Committee over proposed legislation . . . to allow construction of a massive water pipeline, devastating ecosystems and putting already imperiled wildlife at risk of extinction. . . . would pave the way for massive groundwater export projects that would harm desert water features like springs and wetlands.

[http://www.biologicaldiversity.org/news/press\\_releases/2017/nevada-groundwater-05-16-2017.php](http://www.biologicaldiversity.org/news/press_releases/2017/nevada-groundwater-05-16-2017.php)

## IAEA PROJECT MAPS GROUNDWATER RESERVES IN AFRICA'S SAHEL REGION

Spreading over a 7-million square kilometre area, the Sahel is home to 135 million people across West, Central and North Africa. The area has suffered from extreme drought in recent decades, affecting agriculture and causing widespread hunger. Without many rivers to draw water from, groundwater systems are the region’s main source of fresh water.

<http://www.unwater.org/iaea-project-maps-groundwater-reserves-africas-sahel-region/>

Watch video here: [https://youtu.be/YpG\\_Avof03I](https://youtu.be/YpG_Avof03I)

## US: GOOGLE'S THIRST FOR WATER...

Google's thirst for water is causing controversy near Charleston, South Carolina. The company wants to draw 5.5 million litres per day from groundwater to help cool the servers at its data centre complex in Berkeley County. The centre already uses about 15 million litres of surface water per day, according to local newspaper the Post and Courier.

Some residents, conservationists, and local water utility leaders say South Carolina officials should hold off on granting Google's groundwater request. The region's aquifers are already under stress due to the recent residential and commercial boom. New industries, corporate farms, and an influx of residents are apparently pumping out water faster than the aquifers can replenish, spurring "water wars" in South Carolina, the newspaper reported. State and federal scientists are assessing how much water can be drawn without exhausting the region's groundwater supplies.

Google isn't the only tech company to grapple with water issues. Facebook's data centre in Prineville, Oregon competes for freshwater with farmers and a growing local population. In Utah, which has just come out of a six-year-long drought, eBay's facility in Salt Lake City uses increasing amounts of water.

<http://mashable.com/2017/04/23/google-data-center-south-carolina-water-wars/#t6QrwPJNEaqR>

## ...SUBSEQUENTLY: REGULATORS OK AQUIFER PLAN, CLEARING WAY TO ACT ON GOOGLE'S REQUEST TO WITHDRAW MORE GROUNDWATER

A plan that facilitates the decision on Google's request to draw up greater quantities of groundwater per day from the Lowcountry's chief aquifer was approved by the state's regulatory board in May. The South Carolina Department of Health and Environmental Control board unanimously approved the measure, despite legal efforts by the Mount Pleasant Waterworks to halt the vote.

[http://www.postandcourier.com/news/regulators-ok-aquifer-plan-clearing-way-to-act-on-google/article\\_f8aa2ef0-364b-11e7-a882-b7dcd690ac42.html](http://www.postandcourier.com/news/regulators-ok-aquifer-plan-clearing-way-to-act-on-google/article_f8aa2ef0-364b-11e7-a882-b7dcd690ac42.html)



AUGUST 2017



## Groundwater on global agendas...

Over its 60 year history IAH has been involved with many international agencies, associations and other institutions concerned with water. As such it is acutely aware, just as many readers will be, that groundwater is often a forgotten part of the hydrological cycle. It is down to the knowledge from each of us, and as a universal whole, to ensure that groundwater is effectively represented and understood in all the national, regional or international meetings we attend. I therefore want to appeal to all our members and supporters to be particularly sensitive to this and to use your voices within the water community in greater defence of our science, our profession and our values. The same must be done with regard to our politicians and stakeholders, government bodies, as well as with national and regional agencies dealing with water. In simple terms, to make it our goal to place groundwater on the agenda whenever we are representing our profession.

You may have read that IAH recently signed an agreement with the International Association for Promoting Geoethics (IAPG), creating a bond between hydrogeology and ethics. In a time where our profession is called to solve, or to comment upon, sensitive groundwater issues such as groundwater mining, hydraulic fracturing, overexploitation, etc, we intend that this agreement will serve to remind us about an important aspect of our profession. We anticipate holding a joint meeting with IAPG about hydrogeoethics - look out for further news on this - we urge you to participate.

I would also like to mention the work of the various IAH groups. The evolution of our science is reflected in the efforts of our Commissions and Networks and through their leaders' and members' proactivity, ideas, and their development of groundwater related science and in outreach. I am pleased to see the vitality and increasing number of our National Chapters, as indicated by the news we receive from them and from the number of requests we are receiving to organise our future congresses and national meetings. Globally, as you will read, our groups of networks, commissions and national chapters are organising and contributing to a whole variety of national, regional and international scientific events; such action contributes to information and experience sharing on a wealth of topics in all different reaches of the world.

IAH's Hydrogeology Journal continues to be a strong flagship of the association, thanks to its dedicated Executive Director, Cliff Voss, deserving our support and acknowledgement. Nick Robins, our Editor-in-Chief for the IAH book series also deserves due credit. Again, as you will be aware, the world of publishing is changing, so this is something that will receive IAH's attention in forthcoming years.

The beginning of 2017 marked a change for IAH's Secretariat, with retiring Executive Manager John Chilton handing over to new Executive Manager Ian Davey. IAH owns a great part of its success in the last years to John, a highly dedicated colleague who led our Secretariat with sense and creativity, aiding the Executive throughout. Transition has been smooth; Ian now has all the responsibilities, albeit involving now very occasional contact with John. Thank you both, for your cooperation and help in our work for our Association.



Last but not least, I would like to call your attention to our congress in Dubrovnik. IAH's congress is the annual meeting-point for its members, associates and hydrogeologists from all over around the world. This year's location is a beautiful area of the Croatian coast, in the middle of a beautiful and famous karstic area. Dedicated to the topic "Groundwater Heritage and Sustainability," we hope you agree this looks to be another excellent event and that you will attend. Our thanks to our colleagues of the Croatian National Chapter. See you there!

ANTÓNIO CHAMBEL

---

## CYBERSECURITY

There are many horror stories in the media about the dangers that hide in cyberspace. Hopefully you haven't been held to ransom by Wannacry or other malicious software, though in recent months the Secretariat has received a number of reports of attempts to defraud members of IAH by email. In the main, risks in the "real world" are probably far greater than in cyberspace – but in both cases, although we can't avoid all risks, we can try to manage potential threats.

Our website and email service provider agrees that fraudulent emails are a continuing nuisance, a common case being an urgent email request for money, from a colleague who has supposedly lost both wallet and passport in a location far from home. They advise that we should routinely be on the watch for scam emails. Although often it is clear that these emails have come from fake addresses, sometimes they can look convincing. They also emphasise the risks of opening attachments or links in potentially suspicious emails and encourage everyone to take the normal steps to secure themselves by using safe computing practices, such as keeping security up to date and regularly changing passwords.



The Secretariat has reported the recent scams to the UK national fraud service, Action Fraud, and contacted the police force about how information on international crime and scams is shared via Interpol. Interpol actively looks into these scams and the one that has been perpetrated on us is very common, so they will already be taking action as far as possible. The President, Antonio Chambel, also reported the issue to the authorities in Portugal. If you receive scam emails please report them to the authorities in your own country, to help ensure that the information can be used in the worldwide fight against cyber-crime.

### SECRETARIAT

 <https://iah.org/privacy-and-cookies-policy>

## EXECUTIVE MEETS IN PARIS

IAH's Executive Committee met at UNESCO's offices in Paris to review current IAH business ahead of Council and IAH's Annual General Meeting (AGM), both taking place during congress in Dubrovnik.

### FINANCIAL MATTERS

The Executive reviewed the draft financial report for 2016 and considered the budget for 2017. Although our income is mainly in euro, our formal accounting is undertaken in pounds sterling to meet with IAH's regulatory obligations as a UK based charity and company. As widely reported in the media the Brexit vote has led to uncertainties in the UK - the result of this from 2016 being that the fall in the value of sterling against the euro resulted in a small overall surplus. This result was despite a "planned" small operational loss, continued over a number of years, reflecting an agreed policy since 2010 to take advantage of a healthy bank balance that existed at that time, thus allowing a period of modestly increased expenditure on the Association's charitable activities. Our finances remain sound, though careful budgeting will now be needed to manage future expenditure to ensure the continuing financial security of the Association. We are also exploring ideas for increasing and diversifying income streams to enable us to continue in our charitable activities. For now, given the continuing instability of UK, European and global markets a rather more conservative financial policy has been adopted.

### FORWARD LOOK PROGRESS

IAH's Forward Look was established in 2010 to progress the key aims and ambitions of the Association. Given that the Executive comprises a number of new members, the committee took the opportunity to review progress and achievements, which include:

- Developing a new IAH website and related membership/supporter application
- Restructuring of Commissions and Networks
- Establishing an Early Career Hydrogeologists Network
- Updating the IAH rules to better reflect current practice
- Increasing membership to over 4,000, and increasing the number of National Chapters
- Launching the mentoring scheme
- Preparing a series of Strategic Overview papers (7 papers to date)
- Increasing the size, quality and citation index of Hydrogeology Journal

With 3 years remaining of the envisaged period covered by the Forward Look, the Executive considered that there was still scope to achieve more. A number of priority actions will be identified under the originally defined headings, which covered education and development of groundwater science, influencing global policy and enhancing alliances with other agencies, and the continued development of IAH.



## EDUCATION

The Executive discussed how to provide more support for education, including: establishing an international panel of experts for contributing to training courses; hosting webinars and providing links to webinars established by National Chapters and external groups; and listing information on hydrogeology degree courses. It was proposed that members should submit information on courses and programmes that focus on groundwater, which could be posted on a “How to become a hydrogeologist” page, though this should not necessarily be taken as an endorsement of the courses. It was proposed that the education working group should be reinvigorated to develop these proposals further. The Executive thought that this could also usefully take account of experience gained by National Chapters that have active education and outreach programmes. The website is already being updated with further information on education, knowledge and communications. In addition, different formats and platforms for the best way of presenting information are also being considered for use within the IAH website. Look out for further news and announcements.

## AWARDS

The Executive discussed proposals for IAH’s annual awards. These are: the Presidents’ Award, which is determined by the current and past presidents; Honorary Member, for which candidates are elected, following a recommendation by Council; the Distinguished Associate Award, which is made by the IAH Executive Committee in consultation with the Council; and the Applied Hydrogeology Award, for which recommendations are made by a panel - the Executive thanked Willi Struckmeier, Jane Dottridge and Callist Tindimugaya for taking on the role this year. Presentation of the awards will take place at the General Assembly, during Congress.

## INTERNATIONAL ENGAGEMENT AND REPORTS FROM EXEC MEMBERS

There was a wide-ranging discussion on this item, particularly how IAH could improve co-operation with other like-minded organisations. It was agreed that improving connections with organisations such as GRIPP (Groundwater Solutions Initiative for Policy and Practice), IWMI (International Water Management Institute), IGRAC (International Groundwater Resources Assessment Centre) and INBO (International Network of Basin Organisations) would be beneficial. We are also members of the World Water Council (WWC) and more active participation would help raise the profile of groundwater in this important forum. As far as resources will allow, IAH will continue to contribute to discussion and participate in suitable meetings and events.

Blanca Jimenez Cisneros and Alice Aureli of UNESCO joined for part of the meeting. They see IAH as a valuable partner, for example in helping to promote consideration of groundwater under the 2030 agenda (IAH had developed its Strategic Overview Series to support the Strategic Development Goals). IAH input to UN Water Week would be seen as worthy and the Executive agreed to see who might already be attending and able to support. UNESCO is supporting the Dubrovnik Congress, including the proposed karst workshop. They referred to a number of projects they are currently considering and suggested it would be valuable for IAH to be involved in some way.

## IAN DAVEY



From left: Bruce Misstear (Ireland); Dave Kreamer (USA); Blanca Jimenez Cisneros and Alice Aureli (UNESCO); Teodóra Szöcs

# DEVELOPING IAH'S INCOME STREAMS

Since mid-2016 IAH's Executive and colleagues have been considering how to greater strengthen the way the Association generations its income. Currently we are largely dependent on members' subscriptions; in response to your comments we try to maintain low fees, with periodic increases kept to a minimum. Our intention is that we can develop our other sources of revenue to set our finances onto a sounder basis and, just as importantly, help us to meet our educational and charitable objectives more effectively.

Generating additional funds will give us greater scope to:

- Support training of hydrogeologists in developing countries
- Run strategic workshops on groundwater management in target countries
- Support developing country participation at congresses
- Prepare additional learning resources and advocacy materials
- Provide external support for profile raising, communication and advocacy
- Provide support to the work of Commissions and Networks
- Support other specific initiatives, including conferences
- Support the Secretariat staffing in meeting the current increasing demands

Clearly we need to make sure that in developing our income and working with others in this way, we take account of potential risks and avoid conflicts of interest. As a registered charity in the UK, we are expected to carry out all of our business in a way that protects our reputation and encourages public trust and confidence in our Association. As well as following the law and complying with recognised standards, we need to protect the IAH from undue risk and show respect for all members, other supporters, donors, and the public.

Our values are focussed on the sustainable global management of groundwater, which can be seen clearly in our mission statement and aims. Where we look to support from others they should be able to show that their activities are compatible with and will not compromise our values or obligations. Preferably they should be able to show this through their written policies, or statements about their activities and behaviours, for example in regard to corporate social responsibility and sustainable environmental management.

A team led by Robbie Dow (British Chapter) and Dave Kreamer (VP Science and Programme, North America), and supported by the Secretariat, is currently working on how to put these plans into operation. We are intending to have some further information available in Dubrovnik so come and see us on the IAH stand and give us your thoughts on how we can achieve our aims. You may already have successful schemes in your National Chapters that you can tell us about. You may have funds available that could be set to good use in accordance with our aims. In any case, we look forward to hearing from you.

## SECRETARIAT

 [info@iah.org](mailto:info@iah.org)

 [www.facebook.com/iah.org](http://www.facebook.com/iah.org)

# YOUR OPINION COUNTS! 2017 IAH SURVEY

We are currently undertaking a survey to seek opinions, feedback and ideas for new benefits and services IAH might provide to its members and supporters.

The survey will be open until the end of August 2017. We are seeking representation from far and wide, so please do pass the message on. The results will be published later in the year and will be considered carefully by IAH's Executive and Council. Look out for reports and next steps on our website and in newsletters.



## SECRETARIAT

 <https://www.surveymonkey.co.uk/r/IAHsupporterssurvey2017>

# DOWNLOAD IAH'S OUT OF PRINT BOOKS

Did you know that many of IAH's out-of-print books are available free to download? Listed below, all can be accessed via the "Learning Resources" page of our website, <https://iah.org/knowledge/learning-resources>:

Hydrogeological Maps, A Guide and a Standard Legend (1995); Guidebook on Mapping Groundwater Vulnerability (1994); Hydrogeothermics (1994); Annotated Bibliography of Karst Terranes, Volume Five (1993); Hydrogeology of Selected Karst Regions (1990); Hydrology and Management of Hazardous Waste by Deep Well Disposal (1990); Hydrogeology of Salt Water Intrusion; A Selection of SWIM Papers (1991); Hydrology of Limestone Terranes; Annotated Bibliography of Carbonate Rocks, Volume Four (1989); Well Logging in Groundwater Development (1989); Groundwater Recharge, A Guide to Understanding and Estimating Natural Recharge (1990); Hydrogeological Mapping in Asia and the Pacific Region (1985); Theoretical Background, Hydrogeology and Practice of Groundwater Protection Zones (1985); Impact of Agricultural Activities on Groundwater (1986); Hydrogeology of the Dinaric Karst (1984); List of Terms of Hydrogeology, Geochemistry and Geothermics of Mineral and Thermal Waters (1984); Hydrology of Limestone Terranes (1986); Hydrogeology of Karstic Terrains, Case Histories (1984); Selected Papers on Hydrogeology from the 28th International Geological Congress, Washington D.C., USA, July 9-19, 1989 (1990); Selected Papers on Environmental Hydrogeology from the 29th International Geological Congress (IGC) Kyoto, Japan, August 24-September 2 (1992); Selected Papers on Aquifer Overexploitation from the 23rd Congress of the IAH, Puerto de la Cruz, Tenerife, Spain April 15-19, 1991 (1992)

## SECRETARIAT

 <https://iah.org/knowledge/learning-resources>

*[... we also welcome suggestions and submissions for our "Learning Resources" page; you can do this quickly and easily using our submission form here: <https://iah.org/knowledge/submit-a-resource>]*

AUGUST 2017

# EDUCATION/PERSONAL DEVELOPMENT

## New Degree Course Area on IAH website

We are pleased to announce that we are compiling a new “degree course” area on the IAH website. This is intended to list details of Primary or Masters degree taught courses in Hydrogeology, Groundwater Hydrology or training courses in closely related disciplines, in a similar style to that of our other listings. Details can be submitted using a form via “Survey Monkey” - the link is below.

Over the coming months we will be adding further education pages to our website - as always we would welcome comments and input; email the education group via [education@iah.org](mailto:education@iah.org).

**BRUCE MISSTEAR, SECRETARY GENERAL**



Degree course providers' form: <https://www.surveymonkey.co.uk/r/IAHeducation>  
Questions/Comments: [education@iah.org](mailto:education@iah.org)



## Latest news on IAH Mentoring Scheme

We have almost completed tying up the suitable “matches” received in the 2016 call; this includes some of the un-allocated reserves we had been holding since the last round of registrations. Please be patient; this process takes time - we often have to wait for responses from individuals undertaking field work. Thanks to those mentors who are already actively supporting members by providing advice and the benefit of their own experience. Your help is appreciated! At present the scheme is closed to new applications - look out for further calls later in 2017.

**SECRETARIAT**



<http://iah.org/knowledge/mentoring>



# FROM THE IAH BOOK SERIES...



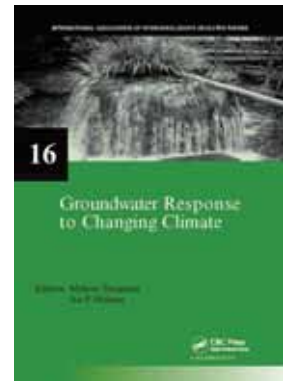
## Selected Papers on Hydrogeology

Series editor Nick Robins, formerly of British Geological Survey, Wallingford, UK

### Groundwater Response to Changing Climate

Edited by Makoto Taniguchi, Ian P. Holman

Groundwater systems are vital to both society and the environment, supporting food production and many other ecosystem services. Sustainable management of this vital resource for future generations requires a sound understanding of how groundwater might respond to the inevitable changes in future climate. In this volume, recent developments within the interlinked areas of the response of groundwater systems to climate variability and climate change are highlighted, using contemporary field investigations and monitoring of aquifers, numerical simulations of aquifer response to climate change predictions and paleohydrogeological studies of ancient groundwater systems. The book provides an up-to-date description of the relationship between groundwater behaviour and ancient, historical, current and future climates for a range of diverse aquifer systems around the world.



ISBN 9781138112599 - CAT# K35189

Published prices: Paperback: £59.99; Hardback: £85.00; eBook: £59.50; eBook Rental: £35.00 (60% discount for IAH members)

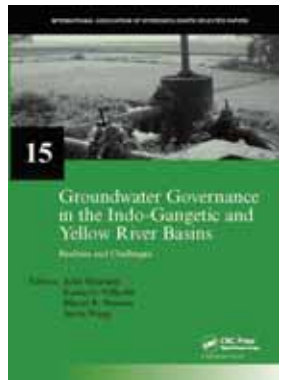
<https://www.crcpress.com/Groundwater-Response-to-Changing-Climate/Taniguchi-Holman/p/book/9781138112599>

### Groundwater Governance in the Indo-Gangetic and Yellow River Basins: Realities and Challenges

Edited by Aditi Mukherji, Karen G. Villholth, Bharat R. Sharma, Jinxia Wang

The book provides an interdisciplinary perspective on groundwater governance, based on primary data that are very difficult to find in other literature. All chapters have a policy focus, making it a useful resource for policy makers.

One of the key features of agricultural development in the last five decades has been intensive groundwater use in the Indo-Gangetic Basin (Pakistan, India, Nepal and Bangladesh) and in the Yellow River Basin (China). Groundwater irrigates almost 60% of the net irrigated area in South Asia and 70% in the north China plains. Groundwater use for agriculture is still increasing. Despite the growing significance of groundwater to agricultural growth, food security and rural livelihoods globally, and at the same time significant signs of limitations and constraints for further use, knowledge of the subject has remained limited. The subject includes the wider issues of socioeconomic impacts, political economy, groundwater institutions, access to other resources like energy and land, approaches to resource governance and management and specifically integrating evidence-based science into management decisions.



This book addresses these information shortfalls and provides a consolidated and cross-disciplinary source of information and documentation of realities and challenges of contemporary agricultural groundwater use and management in poverty-prone areas of Asia. It draws on primary data collected in the course of an innovative, cross-coordinated and inter-disciplinary fieldwork programme, covering those regions in Asia that significantly depend on groundwater for agricultural livelihoods. This work is essential reading for hydrogeologists, socio-economists, agro-economists and water managers working in poor countries. Donors and implementers, both government and NGO, will also learn from the experiences described in this book.

ISBN 9781138113923 - CAT# K35293

Published prices: Paperback: £59.99; Hardback: £95.00; eBook: £66.50; eBook Rental: £38.00 (60% discount for IAH members)

<https://www.crcpress.com/Groundwater-Governance-in-the-Indo-Gangetic-and-Yellow-River-Basins-Realities/Mukherji-Villholth-Sharma-Wang/p/book/9781138113923>

 <https://iah.org/iah-book-series>

AUGUST 2017

# IAH REPORTS FROM...

## MinWat2017, Luso, Portugal



The 2nd International Multidisciplinary Conference on Mineral Waters: Genesis, Exploitation, Protection and Valorisation (MinWat2017) took place in Luso, Portugal, from 26-31 March 2017. The conference was chaired by Professor José Manuel Marques, CERENA's Researcher/IST, with the support of IAH and the Portuguese Chapter.

The conference brought together 120 delegates from 25 countries from Europe, North America, South America, Africa and Asia. The format was somewhat unusual as it combined the three main strands of mineral and thermal waters, namely: Hydrogeology (in the field of hydromineral resources characterization), Industry (in relation to bottling and storage); and Medical Hydrology (in its most varied aspects). Thus, the resulting themes of this International Conference were:

- i) Hydrogeology, hydrogeochemistry and hydrogeophysics – Origin, protection and management of mineral and thermal waters;
- ii) Bottled water: Key characteristics and market trends, and
- iii) Mineral and thermal waters – Health issues, balneology, balneotherapy and balneotechnics.

There were 84 Abstracts, divided between 6 Keynotes, 46 Oral Communications and 32 Posters, as well as midweek technical excursions, led by Portuguese experts, which featured the hydrogeology of the aquifer system of Luso mineral waters; the Sociedade de Água de Luso/Quinta do Cruzeiro bottling plant and the Luso Spa.

Present at the conference were: Dr Jim LaMoreaux, Chair of the IAH Commission on Mineral and Thermal Waters; Dr Patricia Fosselard, the Secretary General of the European Federation of Bottled Waters; Dr Pedro Cantista, President of the National / International Society of Medical Hydrology and Climatology; IAH President António Chambel; IAH VP for Finance and Membership Teodora Szocs; and VP for Eastern Europe and Central Asia Natalia Vinograd.

The organisers are grateful to the Luso Water Society, which was fundamental to the development and success of the conference, as well as for the support of the Tourism Center and Mealhada Municipality.

JOSÉ MANUEL MARQUES AND ANTÓNIO CHAMBEL

 <http://www.minwatportugal2017.org>

## GwFR'2017, Chaves, Portugal

The International Conference on Groundwater in Fractured Rocks (GwFR'2017) was held from the 5-7 June in Chaves, Portugal. The initiative was raised by the Chair of the Network on Fractured Rock Hydrogeology, Prof. Uwe Troeger, and IAH President Prof. António Chambel, with organisation by IAH's Network on Fractured Rock Hydrogeology as well as the Portuguese and Spanish National Chapters.

As with previous years, the aim of the conference was to bring together internationally-based groundwater specialists in fractured rocks. This year a special session was held dedicated to honour the memory of our dear colleague Jirí Krásný, who was a key inspiration and founder of the original IAH Commission related to fractured rocks.

The host town of Chaves in the north of Portugal was known in ancient times as AquaeFlaviae. The environment was perfect for the conference theme, being situated in a complex fractured rock region where mineral and thermal waters coexist with





groundwater from common fractured aquifers. In fact, one of the high points of the meeting was the visit to a recently discovered almost intact Roman Thermal Bath in the heart of the city which gave the city its Roman name.

The conference was attended by 40 participants from 15 different countries, with strong participation from early career hydrogeologists, many of whom co-chaired the scientific sessions along with senior fractured rock hydrogeologists. There were 24 oral presentations.

The conference included field trips. In the morning we visited the hydromineral and geothermal field of Chaves, providing an overview of the geological setting, some exploitation wells, and the Roman Thermal Bath. In the afternoon, we visited Pedras Salgadas and Vidago, well-known areas for their CO<sub>2</sub> rich waters.

We'd like to thank the Municipality of Chaves, ISEP (Instituto Superior de Engenharia do Porto) for their support, and also Prof. José Martins Carvalho and Dr. Manuel Antunes da Silva, for the organisation of the field trips.

Participants were each given an abstract book and field guide in electronic format, edited by Raquel Sousa, Manuel Abrunhosa, and António Chambel (ISBN 978-989-96523-1-6)

[ANTÓNIO CHAMBEL AND UWE TROEGER](#)

## Characterizing regional groundwater flow systems, Calgary, Canada

This two-day symposium was organised by the Regional Groundwater Flow Commission in cooperation with the Canadian National Chapter of IAHR. It comprised 65 oral and poster presentations and 2 keynote lectures: Okke Batelaan talked about the past, present and future of flow systems, and Grant Garven presented geofluids leakage along an active plate boundary. Distinguished guest Prof. Joe Toth – claiming himself as being “the dinosaur of hydrogeology” – summarised the take away message of the fruitful and scientifically rich Symposium: “The theory is very much alive and it is broadening”.

[ÁDÁM TÓTH](#)



*[continued over...]*

**AUGUST 2017**

# Flowpath 2017, Cagliari, Italy

The 3rd Edition of FLOWPATH, the National Italian Meeting on Hydrogeology, organised by the Italian Chapter of the International Association of Hydrogeologists (IAH) took place on 14-16 June 2017 in Cagliari (Sardinia). As on previous occasions, the conference proved an opportunity to promote dialogue and exchange of scientific knowledge among researchers and professionals, particularly early career hydrogeologists.

The conference was sponsored by different companies and had the patronage of various agencies, with special support provided by the University of Cagliari (Dipartimento di Scienze Chimiche e Geologiche).

The conference was organized in 4 sessions over two days (14 - 15 June), with oral and poster presentations of the 77 abstracts accepted. The four sessions were:

- Session 1- Groundwater quality protection
- Session 2 - Hydrogeology of fractured rocks and karst aquifers
- Session 3- Groundwater flow and transport modelling
- Session 4- Groundwater management in arid and semi-arid region (dedicated to Prof. Zuppi)

Each session started with a keynote lecture by international experts (Rosa Cidu, Robert Wyns, Albert Soler Gil and Viviana Re).

IAH Italy was fully involved in the organisation of the conference and also chairing the sessions, together with the members of the scientific committee. During the meeting, the 3rd Zuppi award for the best PhD thesis on hydrogeological issues was awarded with the winner (member Chiara Caschetto) presenting her research. Moreover, we must highlight the very interesting ECHN event on Hydrogeology in Urban areas: Challenges and Opportunities, and the yearly General Assembly of the IAH Italian Chapter.

On the last day of the conference there was an excellent field trip to the mining sites of Porto Flavia and Nebida coast, where the participants were able to see the spectacular port, suspended between the sea and the sky, on a rock face rocks and to enjoy the



buffet lunch at the “Tonnara of Portoscuso”.

The conference was attended by around 120 participants from Italy and beyond. All showed great enthusiasm for the scientific content and we are grateful for the hospitality of the local organizers, IAH members: Stefania Da Pelo, Giorgio Ghiglieri and Gabriele Uras.

The proceedings are published on the open-access platform of the University of Cagliari (<http://ojs.unica.it/index.php/flowpath2017/index>)

**DANIELA DUCCI**

# COMMISSIONS & NETWORKS

Activities of IAH's commissions and networks include contributing to the science of groundwater and undertaking outreach, education and training. Most will be running, or involved with, sessions at this year's IAH congress, co-convene technical meetings and field excursions with other societies, host workshops and training courses and prepare educational material. We encourage you to find out more and to make direct contact with them. You do not have to be an IAH member to participate. In fact we encourage wide involvement from the groundwater community, as this will help the groups to thrive and give greater authority to their work. We also welcome suggestions for new topics or activities.

## SECRETARIAT



<https://iah.org/groups/commissions-networks>

Questions, ideas or comments? email [info@iah.org](mailto:info@iah.org)

## EARLY CAREER HYDROGEOLOGISTS

ECHN is getting ready for this year's IAH Congress!

As in previous years, we will be running the prize for the best Early Career Oral and Poster presentation. If you are an Early Career presenting at the congress look out for information on how to be considered for the award, and please do download the ECHN logo from our website for inclusion on your poster or presentation.

On Monday 25 September from 8pm the ever popular ECHN social function will be held at the congress hotel's disco. Don't forget to register if you haven't already! This event is open to everyone, so don't be too shy to join us, it's always a great opportunity to meet fellow minded groundwater enthusiasts.

On Tuesday 26 September at 11:30am we will have a side session for ECH's, this year's theme being "Successful projects: from application to management - tips from seniors hydrogeologist from the government, industry and academia sectors to early career hydrogeologists". This will be a great opportunity for early career individuals to gain insight into challenges and solutions when managing projects, whether it will be managing a research team, an applied consulting project, or even your PhD thesis!

Finally, on Thursday 28 September at 14:00 at Room Mare 1 we are proud to announce the first keynote lecture with two early career hydrogeologists as invited speakers. ECHN

and IAH's Council hope that this will become a new tradition during congress, showcasing the work being undertaken by the new generation of groundwater professionals as well as strengthening the interaction between early career and senior hydrogeologists.

Keep up to date on ECHN activities through our website and social media. We are also happy to receive questions on comments through our email: [echn.iah@gmail.com](mailto:echn.iah@gmail.com).

Looking forward to seeing you in Dubrovnik!

## ECHN STEERING COMMITTEE



<http://echn.iah.org/>

## BURDON GROUNDWATER NETWORK FOR INTERNATIONAL DEVELOPMENT

Look out for IAH-BGID at congress:

Monday 25 September annual meeting, from 5pm-7pm in Room Kokpit - feel free to drop by to find out latest plans and activities for the network.

We are also participating in the following session: The role of groundwater in reducing poverty. Check congress programme for time/details.

## IAH-BGID COMMITTEE



<https://burdon.iah.org/>

*[continued over...]*

AUGUST 2017

### MANAGING AQUIFER RECHARGE

#### MARVI Declaration

On 30-31 May 2017 an Indian National Workshop titled 'Groundwater Monitoring, Planning, Recharge and Sustainable Use: Village Level Participatory Approaches and Tools' was run in Ahmedabad by the MARVI project team led by Basant Maheshwari (Western Sydney University). The workshop was attended by over 120 policymakers, researchers, planners, government officials, NGOs, farmers and community groups. The aim was to demonstrate and discuss ways to strengthen the institutional capacity and frameworks for effective village-scale groundwater management in rural areas of India. Methods and tools developed in the MARVI project to effectively implement managed aquifer recharge (MAR), assist communities craft cooperative strategies for village level demand and quality management. Outcomes are summarised in the Workshop Declaration: <https://recharge.iah.org/marvi>

#### Commission and GRIPP activities at 43rd Congress

IAH Congress 25-29 September, Dubrovnik, Croatia includes several sessions on MAR and a Commission Plenary. There will also be a special meeting of UNESCO with Commission working group leaders and GRIPP to discuss future publications in this domain.

GRIPP will be having a meeting on 28 Sep at 19:00 in the Cockpit meeting room at the Congress venue. The meeting will be open to all for the first 1 hour, followed by a closed Partners' meeting.

1. Agenda for the open meeting:
2. Revisiting: What is GRIPP?
3. Latest news and activities in GRIPP
4. How to get involved
5. Feedback and discussion

Check for further details on the congress programme - we look forward to seeing you there!

#### Recharge to the Rescue! Managed Aquifer Recharge as a Water Management Tool

16th Biennial Symposium on Managed Aquifer Recharge, 5-7 March 2018, San Diego, run by Groundwater Resources Association of California and the Arizona Hydrological Society with IAH as an associated organization. Call for abstracts (due 1 Nov 2017) and full information is at: <https://www.grac.org/events/99/>.

#### Free Webinars on MAR and a Workshop in Perth, Australia

ICEWaRM (International Centre of Excellence in Water Resources Management) <http://www.icewarm.com.au/> runs a free webinar series and this year three focus on MAR. A week or two after each webinar the video and powerpoints are available from the associated website:

1. Hardrock Groundwater Recharge using Check-Dams in Rajasthan and its relevance to South Australia. Yogita Dashora (MPUAT, Rajasthan, India) led this webinar on 15 June <http://www.icewarm.com.au/australian-water-school/short-courses/course/webinar-groundwater-recharge-hard-rock-area-rajasthan-india-relevance-south-australia/>
2. MAR for Water Utilities Greg Ingleton of South Australian Water Corporation led this webinar on Thurs 6 July –at <http://www.icewarm.com.au/australian-water-school/short-courses/course/mar-water-utilities/> and view later.
3. MAR essentials – a two day workshop in Perth, Western Australia on 26 and 27 October will be preceded by a free webinar on 7 Sept.

The Australasian Groundwater Conference 2017 - Groundwater Futures: Science to Practice. <http://www.groundwater.com.au/events/1116> 11 - 13 July, 2017, Sydney, featured a number of papers on MAR.

PETER DILLON



<https://recharge.iah.org/>



## REGIONAL GROUNDWATER FLOW COMMISSION

### EGU General Assembly 2017

Our Commission co-convened a session entitled “Groundwater Vulnerability and Circulation” at the European Geosciences Union (EGU) General Assembly 23-28 April 2017, Vienna, Austria. The session attracted 6 oral presentations and 18 posters. During the oral presentations, around 40 people attended the session. The session included a broad range of techniques such as hydrochemistry, environmental tracers, and numerical modelling. These methods have been applied in countries in Europe, Asia, America and Africa to examine groundwater vulnerability and circulation problems.



RGFC Secretary Ádám Tóth, Co-Chairs Okke Batelaan and Xiao-wei Jiang, Richard Martel, Session Co-Conveners Daniela Ducci, Judit Mádl-Szőnyi (RGFC Chair) and Manuela Lasagna, Session Convenor Jim LaMoreaux

### 44th IAH Congress

During the annual IAH Congress held in Dubrovnik this year, RGFC will be organising a session entitled T1.2. “Groundwater management and energy source development in a changing climate” where the main focus is on the groundwater flow systems under the stress of changing climatic conditions. Water management, energy source development and also ecological issues will be discussed in oral and poster presentations.

### Seeking Active supporters for RGFC-IAH

The Final Report of the RGFC was submitted at the end of its 6-year-long licence and we would like to continue our activities under the aegis of the Commission of IAH. One of the main tasks of the Board for the future: “It is still a great challenge for the RGFC to involve more hydrogeologists in the activity of the Commission. The RGFC intends, therefore, to maintain its emphasis on building further the community of friends of regional groundwater flow.” Feel free to contact us to help in the Activities of the Commission.

### ÁDÁM TÓTH

*See page 17 for report from Calgary Symposium, held jointly with Canadian National Chapter*



<https://regionalgwflow.iah.org/>

## Other IAH Commissions & Networks

Commission on Groundwater and Climate Change: <http://www.gwclim.org>

Commission on Groundwater and Energy: contact Grant Ferguson, [grant.ferguson@usask.ca](mailto:grant.ferguson@usask.ca)

Commission on Groundwater Outreach: contact Andrew Stone, [astone@agwt.org](mailto:astone@agwt.org)

Commission on Karst Hydrogeology: <http://www.iah.org/karst>

Commission on Mineral and Thermal Waters: contact Jim Lamoreaux, [JLamoreaux@pela.com](mailto:JLamoreaux@pela.com)

Commission on Transboundary Aquifers: <http://www.isarm.org/IAH-TBAcommission>

Network for Coastal Aquifer Dynamics and Coastal Zone Management: <http://www.iah-cad-czm.net/>

Network on Fractured Rock Hydrogeology: contact Uwe Troeger, [uwe.troeger@tu-berlin.de](mailto:uwe.troeger@tu-berlin.de)

Network on Groundwater and Ecosystems: contact Joseph Gurrieri, USA [jgurrieri@fs.fed.us](mailto:jgurrieri@fs.fed.us)

Urban Groundwater Network: website: <http://www.scar.utoronto.ca/~gwater/IAHCGUA/index.htm>

AUGUST 2017



## IRAQ

### March meeting and workshop

On 6 March 2017 the Iraqi National Chapter convened a meeting at the Department of Building & Construction Engineering, University of Technology. The meeting discussed the sustainability of water resources and groundwater in Iraq with special focus on the current, national and international challenges as well as evaluating the environmental impacts of the development of surface and underground waters.

The meeting was followed by a workshop entitled “Development of Water Resources in Iraq for Sustainable Development”. The workshop was attended by almost 150 participants, including representation from other Iraqi universities, the Ministry of Water Resources, the Ministry of Environment and many other specialists on the related field.

The main lectures and research discussed through the presentations of the workshop were: Mosel Dam, the most dangerous dam in the world and the effect on the environment and effect on ground water, Prof. Dr. AQEEL AL-ADILI; The future strategy of water resources and lands in Iraq, Ministry of Water Resources; Lowering of ground water at heritage city of Babylon, Dr. Ebtisam Kareem Raheem; The challenges of water resources and environment in Iraq, Prof. Dr. Abdul Hameed Al-Ubaidy; Effect of waste water on the ground water and environment at Baghdad City, Prof. Dr. Riyadh Al-Anbari and Dr. Zainab Bahaa.

At the end of the workshop the following recommendations were agreed:

- The need for risk assessments of liquid and solid wastes drained into rivers and in groundwater, quality and plants, especially in large cities;
- Enforcing the various legislation concerning water resources; contributing to and/or supporting the application of such law; improving media and public awareness;
- Greater emphasis on integrated water management;
- Collaboration between relevant ministries in the sustainability of water resources;
- Focus on the solutions and treatments adopted to minimize the threat of the Mosul dam, as raised in the workshop;
- Contribute to studies concerned with the assessment of water as a resource in Iraq and the impact of neighbouring countries’ water policies on the water in Iraq, particularly the source countries;
- Focus on the economical use of the Marshlands’ waters and its interaction with groundwater;
- Study the influence of retaining and extending the Marshes on the climate change in Iraq and the region.

**DR AQEEL AL-ADILI**





## Japan

### Joint seminar held

On 19 May the IAH Japanese chapter and the Japanese Association of Groundwater Hydrology (JAGH) co-hosted a joint seminar “Current Status and Tasks of Global groundwater studies” at the college of humanities and sciences, Nihon University, Tokyo. Around 40 participants attended.

The seminar featured guest speaker Dr. Yoshihide Wada, senior researcher and Deputy Director of the Water Programme, International Institute for Applied Systems Analysis (IIASA), Austria. Dr. Wada discussed his current research concerning global assessment of the sustainability of future food production under socioeconomic and climate change and water scarcity. He also talked about the current status of global groundwater studies, encouraging subsequent discussion.

Prof. Makoto Taniguchi, IAH VP for Asia and the president of JAGH, gave the opening speech.

Overall, the seminar provided opportunity to share ideas and global perspectives, as well inform others of IAH’s activities, with hydrogeologists in Japan.

**PROF. DR. MASAYA YASUHARA**



 [masaya-yasuhara@ris.ac.jp](mailto:masaya-yasuhara@ris.ac.jp)



## USA

### Student sponsorship scheme

Once again, the USNC is sponsoring a group of one-year, graduate-student memberships via its general funds and through generous individual contributions of members.

Nominated by their faculty advisors or professors, those chosen represent a diverse, ambitious, and accomplished selection of graduate students with strong international hydrogeology interests.



Mackenzie Cremeans,  
Ph.D. Candidate (Geology),  
Department of Geology,  
University of Kansas

**SECRETARIAT/USNC**

*[Ed: IAH welcomes such initiatives, funded locally through national chapters and meetings. Email [ideavey@iah.org](mailto:ideavey@iah.org) with suggestions and comments.]*

**YOUR FLAG HERE!** More Chapters Wanted

IAH is always keen to establish more chapters and it may be that we have other interested individuals in your country or region hoping to establish one. Recent discussions have been undertaken with individuals from Democratic Republic of Congo, Finland and Uganda. IAH provides full information and support to help guide you in the process. Chapters retain 10% of the IAH membership fee to help support their own activities, which include technical meetings, field visits and social events, and many even collect fees in local currency for the convenience of their members. National chapter committees are run on a voluntary basis by members and we are very grateful for their efforts.

**SECRETARIAT**

 [info@iah.org](mailto:info@iah.org)

*[continued over...]*



# NEW MEMBERS

A warm welcome to the following new members who joined our Association in the period 31 March - 21 June 2017:

## ANGOLA

Natalia Capingano

## AUSTRALIA

Ms Julia BAUER  
Graeme BEARDSMORE  
Tony BERNARDI  
Fang BIAN  
Brayden BRIGGS  
Andrew BUCHEL  
Amanda CLEMENTS  
Andrew COSSEY  
Nicholas COULSON  
Russell CROSBIE  
Haydn FRANKLIN  
Kate HOLLAND  
Karen JOHNSTON  
Susan MACOLINO  
Mariah MURPHY  
Thomas NEILL  
Brenton NICHOL  
David POST  
Andrew ROSS  
Mattia SACCO  
Ivan SCHRODER  
Miss Sarah SHALSI  
Gretchen SITES  
Dr Magnus SKOLD  
Simon TANT  
Claire THOMAS  
Zac VAN HAAFTEN  
Samantha WALSH  
Ms Alexandra WOLHUTER  
Sienna XUE  
Mahdi ZOORABADI

## BELGIUM

Serge KALBUSCH

## BOTSWANA

Mr Mosimanegape ANDERSON

## BRAZIL

Daniela Dantas De Menezes RIBEIRO

## CANADA

Prof Paul BAUDRON  
Dr Steven BERG  
Jason DIXON  
Kristian DOERKEN  
Michael FABIUS  
Mr David FERRIS  
Ms Laura-Lee FINDLATER  
Kushan GANDHI  
Jacob GEORGE  
Mr Jacques GROENEWALD  
Michael HARRISON  
Laura MAHARAJ  
Kerry MULCHANSINGH  
Ms Victoria PETERS  
Arianna PIAZZA  
Ms Melanie RADTKE  
Dr Robert WALSH

## CHILE

Dr Claudio MOYA  
Matias Ugarte DAIBER

## CHINA, PEOPLE'S REPUBLIC

Dr Xuehao LIU

## COLOMBIA

Mr Heladio GUIO

## CONGO, DEMOCRATIC REPUBLIC

Mr Luke ADAMS

## CUBA

Lemuel Carlos RAMOS ARZOLA

## CZECH REPUBLIC

Mr Arnošt MRÁZ

## DENMARK

Dr Carlos DUQUE

## FINLAND

Dr Daniele PEDRETTI

## FRANCE

Hubert BONIN  
Emmanuel DUBOIS  
Anne JOHANNET  
Boudjema Abdallah KHAMMARI  
Daniel PIERRE

## GERMANY

Babette GABRIEL  
Muhammad Shahid MANZOOR

## INDIA

Dr Subash CHANDRA  
T MADHAV  
Dr Pandith MADHNURE  
Hemixa PATEL  
Dr Thambidurai PONNUGOUNDER  
Dr Sahebrao SONKAMBLE

## INDONESIA

Mr Ahmad TAUFIQ

## IRELAND

Ms Fiona CAHILL  
Ms Aine MC ELHINNEY

## ITALY

Ms Sonia C. Aldana MARTINEZ  
Dr Ciro APOLLONIO  
Claudio ARRAS  
Prof Piero BARAZZUOLI  
Marco BONAT  
Dr Silvia BRIGIDA  
Dr Alberto CARLETTI  
Loris COLOMBO  
Giovanna DE FILIPPIS





Dr Antonella DI MODUGNO  
Dr Maria DI MODUGNO  
Mr Matteo DIBISCEGLIA  
Mr Fabio Antonio FUSSI  
Anna Matzeu  
Neha MEHTA  
Alice MURGIA  
Dr Mauro PAGNOZZI  
Stefania PASSARETTI  
Maria Chiara PORRU  
Dr Giovanni RUGGIERI  
Sara SCOLIERI  
Felice TATANGELO  
Mr Alessandro VALERIO  
Sergio VERNOCCHI  
Luca VETTORELLO  
Mr Alessandro VIOLETTI

#### JAPAN

Prof Kei NAKAGAWA

#### KOREA, REPUBLIC

Dr Sun Woo CHANG  
Dr Il-Moon CHUNG

#### MALAWI

Mr Ulaya MWALE

#### MOROCCO

Dr Anasse AIT LEMKADEME  
Bahija ALABJAH  
Naima EL ASSAOUI  
Halima JOUNAID  
Taoufiq KOUZ  
Faiza MENJOUR

#### NAMIBIA

Ms Nangula NDAKUNDA

#### NETHERLANDS

Mrs Daniela Benedicto VAN DALEN

#### NORWAY

Katherine AURAND

#### PERU

Bruno GIRALDO

#### POLAND

Katarzyna PIETREWICZ

#### PORTUGAL

Mr Flávio da Silva DIAS  
Mr José FERREIRA  
Ms Doroteja GOŠAR

#### ROMANIA

Dumitru NEAGU

#### SLOVENIA

Blaz KOGOVSEK

#### SOUTH AFRICA

Mr Jacques DU PREEZ  
Mrs Surina ESTERHUYSE

#### SPAIN

Dr Enrique Aracil ÁVILA  
Julio BERBEL VECINO  
Mrs Ángela María Blanco CORONAS  
Sara ESPINOSA MARTÍNEZ  
Julià GARCIA MINGUEZ  
Señor Rubén Miguel JIMÉNEZ GARCÍA  
Ms Mireia JIMENEZ LLOBET  
Alejandro MARTÍNEZ MORENO  
Concepción PLA BRU  
Agnès SALETA DAVÍ  
Mr Juan Pedro SÁNCHEZ ÚBEDA

#### SWEDEN

Erika HOLGERSSON  
Mr Pirouz SHAHKARAMI

#### SWITZERLAND

Mr Sean FUREY  
Thobias VOGT  
Mrs Marie-Louise VOGT

#### TUNISIA

Dr Hajer AZAIEZ  
Chayma SAIDI

#### UNITED KINGDOM

Mr James GRUNDY  
Mr Chris HARVEY  
Mr Oliver HUTTON  
Michelle LANZONI  
Dr Donald John MACALLISTER  
Ms Renee MARTIN-NAGLE  
Miss Helen WARREN

#### UNITED STATES OF AMERICA

Ms Lilly CORENTHAL  
Mr Roberto Luis SANCHEZ  
Mr William TAYLOR  
Mrs Sarah VITALE

### Check your details

Ensuring that our members receive their IAH entitlements such as the HJ is important to us. Please take a moment to check/edit your details at <https://iah.org/members/edit-details...> we'd hate you to miss out!

### SECRETARIAT

AUGUST 2017

# 44TH IAH CONGRESS



## Update from Croatia

Preparations by the Croatian National Chapter for the 44th Congress “Groundwater Heritage and Sustainability” (25-29 September 2017) are now moving into their final weeks. The deadline for ‘early bird’ registrations was at the end of June, by which time the organisers were well on their way towards their target for delegates. But if you haven’t yet been able to register there is still time. Remember though that Dubrovnik will still be very popular with tourists (and maybe those filming ‘Game of Thrones’) so many hotels will soon be booked up. Book now to avoid disappointment!

IAH Secretary General Bruce Misstear made a short liaison visit to Croatia to provide support and advice to the organising committee. He returned with reports of the excellent progress that the Organising Committee had made and of the idyllic location. The congress will be held at the Dubrovnik Palace Hotel, which nestles on the scenic seafront between a pine forest and the turquoise coastal waters of the Lapad Peninsula. It is just a few minutes’ by car or bus from the medieval Dubrovnik Old Town, the jewel of Croatian tourism, which occupies a spectacular location on the eastern Adriatic coast. It was declared a World Heritage Site by UNESCO in 1979. Dubrovnik is also, without doubt, one of Europe’s most fashionable conference destinations.

The organising committee has established nine main topics under the congress theme: 1) Groundwater heritage - passing benefits to current and future generations; 2) Sustainable management of groundwater resources - Special subtopic: Sustainable Management of Groundwater Resources in Central Europe – 3rd IAH Central European Groundwater Conference; 3) Groundwater modelling; 4) Groundwater monitoring - new approaches; 5) Groundwater in karst systems; 6) Island and coastal hydrogeology; 7) Groundwater and dependent ecosystems; 8) Hydropower and geothermal energy; 9) Mineral waters and human health.

The scientific committee has been reviewing the abstracts received and advising authors of the outcome. Nearly 550 abstracts were received, including 341 oral presentations. The list of approved abstracts is published on the congress website.



Four pre-congress courses have been confirmed: 1) Water resources management and engineering challenges in karst aquifers, 2) Groundwater remediation: From hydrogeologic site concepts to applied numeric models, 3) KARSYS, KarstALEA and KarstMOD: applied and innovative methods for the management of karst environment and 4) Applied groundwater modelling using Visual MODFLOW Flex. Further details of these are now available on the congress website.

Mid-congress excursions are planned to several hydrogeologically-diverse and interesting localities, including the Dubrovnik hinterland, the beautiful islands of the Elafiti archipelago and the Mljet National Park (now fully booked).

For those of you who are fortunate enough to be able to spend more time in the region details have now been firmed up for excursions before and after the congress, which will offer a chance to visit to some of the most famous localities in the Dinaric karst including the Jadro spring which is used to supply Split, the Plitvice Lakes National Park (tufa barrier lakes), the Blue and Red Lakes (famous sinkholes) and the Buna Spring (the largest karst spring in the Dinarides) and other sights across Croatia, Bosnia and Herzegovina, Montenegro, Serbia and Slovenia. Details of all of these are available on the congress website.



The patronage of the President of Croatia has been confirmed and the committee have been enlisting other potential supporters and sponsors. The community of Croatian hydrogeologists invites colleagues to attend the congress and share their ideas, experiences and knowledge. We all look forward to seeing you there!



**SECRETARIAT AND 44TH CONGRESS ORGANISING COMMITTEE**

 [Congress website - http://iah2017.org/](http://iah2017.org/)

### **2017 IAH ANNUAL GENERAL MEETING**

Notice is given that the 2017 Annual General Meeting of the International Association of Hydrogeologists will be held in the Dubrovnik Palace hotel, Dubrovnik, Croatia on Tuesday 26th September from 19.00-20.00. All members of the Association who have fully paid their subscriptions for the current year are entitled to attend and participate in the proceedings. Guests are welcome.



**AUGUST 2017**

# 2017 - SELECTION

28-31 August – Bogota, Colombia

International Conference on Groundwater – ICGW2017

La Conferencia Internacional de Aguas Subterráneas – Sesquicentenario de la Universidad Nacional de Colombia ICGW 2017, organizado por la Facultad de Ingeniería de la Sede Bogotá y el capítulo Bogotá de la Red de profesionales Jóvenes de la Asociación Internacional de Ingeniería e Investigación Hidroambiental (YPN IAHR Bogotá), con el auspicio de la Sociedad Internacional de Medios Porosos (INTERPORE), es un evento que busca presentar a la comunidad académica y profesional, los últimos avances. <http://www.icgw2017.unal.edu.co>

 1-2 September 2017 – Glasgow, UK

Early Career Hydrogeologists' Conference 2017

Practical Field Hydrogeology & Policy Relevance for Water Resources Management. Organised by University of Strathclyde, Scottish Government, Geological Society, IAHR/ECHN.

Website: <https://www.strath.ac.uk/engineering/civilenvironmentalengineering/echc2017/>

 3-6 September – Terceira Island, Azores, Portugal

III Workshop HydroVolcanic 2017

In this event we will: communicate and discuss significant aspects of production, availability, quality, use and management of water resources in island environments of volcanic origin; and we will consider how integrating socio-economic, environmental, institutional and regulatory issues related to water resources needs to be taken into account. Organised by University of Azores and Portuguese Chapter of IAHR.

<http://hydrovolcanic2017-en.weebly.com/>

 25-29 September – Dubrovnik, Croatia

44th IAHR Congress: Groundwater Heritage and Sustainability

Eight main congress topics have been established under this theme: 1) Groundwater heritage - passing benefits to current and future generations; 2) Groundwater modelling; 3) Groundwater monitoring - new approaches; 4) Groundwater in karst systems; 5) Groundwater and dependent ecosystems; 6) Hydropower and geothermal energy; 7) Sustainable management of groundwater resources; 8) Mineral waters and human health. Organised by the IAHR National Chapter of Croatia.

Website: <http://iah2017.org/>

4-6 October 2017 – Agricultural University of Athens / Athens-Greece

11th International Hydrogeological Congress of Greece

The protection of aquifers against the qualitative and quantitative degradation and to the limitation of their vulnerability. Enabling the exchange of ideas and experience, as well as the dissemination of knowledge relating to the contribution of the natural environment to the protection of aquifers against the qualitative and quantitative degradation and to the limitation of their vulnerability. Organised by Hellenic Committee of Hydrogeology.

Website: <http://www.hydrogeologycongress.gr>

 <http://iah.org/events>

For a fuller list of conferences, events and meetings and to submit an event

CONFERENCE LISTING

