

NEWS

& information

IAH - THE WORLD-WIDE GROUNDWATER ORGANISATION

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

AUGUST 2016

Also in this issue:

Software review
Chapter news
President's message
IAH'S 60th anniversary
GRIPP initiative
Meeting and project reports
New members
Publications
In the media...
Conference listing

and the usual IAH
announcements and news



ECHN is continuing to support the establishment of national branches around the world. Recently five new branches have been established in addition to the previous three, the latest being Brazil. Thanks to chair Rodrigo Mazione for this great photo, providing such Olympian timing!

Commission and Network news, pages 18-21

STRATEGIC OVERVIEW SERIES - NEW RELEASE



Another available, concerning Global Change and Groundwater, bringing the total to six. *Page 12*

VOTING OPENS FOR IAH COUNCIL ELECTION



We have an excellent group of candidates and voting could not be easier! *Page 2*

**INTERNATIONAL
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HYDROGEOLOGISTS**

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IAH COUNCIL ELECTIONS

Now is your chance to vote

IAH is run by a Council of 13, elected every four years by the membership. IAH is a charitable, incorporated organisation and so the members of its Council are its directors and also the trustees of the charity. Twelve posts are up for re-election in 2016 and Ken Howard will hold the thirteenth as Past President.

The process of electing the new IAH Council began with a call for nominations at the beginning of 2016. Nominations closed at the end of March after which nominees were checked against the criteria specified in the Association's rules. The list of candidates was made available to members in the May newsletter and is reproduced here. There are candidates nominated for all of the posts, of which two are being competed.

Position	Name of Candidate
President	António Chambel, Portugal
Secretary General	Bruce Misstear, Ireland
Vice President, Science and Programme	Dave Kreamer, US
Vice President, Finance and Membership	Teodóra Szócs, Hungary
Vice President, Sub Saharan Africa	Callist Tindimugaya, Uganda
Vice President, Middle East and North Africa	Ralf Klingbeil, Lebanon Ahmed Fekri, Morocco
Vice President, Western Europe	Marco Petitta, Italy
Vice President, Eastern Europe	Natalia Vinograd, Russia
Vice President, Asia	Makoto Taniguchi, Japan DK Chadha, India Yongje Kim, Korea
Vice President, Latin America and the Caribbean	Carlos Molano, Colombia
Vice President, Australasia and the Pacific	Wendy Timms, Australia
Vice President, North America	Joanne Thompson, Canada

As for the last election in 2012, the Association has entered into partnership with Vote-Now, a US based company, to help conduct the voting process. The Secretariat has provided Vote-Now with details of the current membership and will provide regular updates so that those who renew or join during the voting period will be able to vote. Members with current email addresses will have received instructions for on-line electronic voting, including access to the candidate biographies and personal statements, which are also on the IAH website. The relatively small number of members without email addresses in our database will receive printed ballot papers and the candidate brochure together with instructions for returning their voting papers. If you have not received election material, please contact jchilton@iah.org.

Voting commenced on 8 July 2016 and is well underway, and the poll closes on 23 September. During this period, members will receive reminders to vote. The results will be declared at the Annual General Meeting of IAH in Montpellier on 26 September. All IAH members may vote for all posts; which means that you are not restricted to voting only for the vice president of the region in which you live. Members are strongly encouraged to use this opportunity to exercise their democratic right to vote for the Council that will serve the Association's members from 2016 to 2020.

JOHN CHILTON ELECTION RETURNING OFFICER

A time of change for IAH...

You will be able to see from some of the contents of this issue that we are entering a time of change for the Association. Council elections come around every four years, and you are urged to use your democratic right to ensure that the new council is as representative of the IAH membership as possible. This time of change is also reflected in the farewell messages from our President Ken Howard and Secretary General Shammy Puri, both of whom have given enormous amounts of their time and energy to IAH over many years. It is also seen in my own decision that it is nearly time for your Executive Manager to move on, although I will certainly be here to see through the elections and the anniversary year and to help the new Council and Executive settle in to their tasks.

But also of continuity...

On the other hand, a sense of continuity for the Association is reflected in the considerable work that is being undertaken to document our 60 year history with written material and photographs. The Editors' Message and history article in the Hydrogeology Journal are now published and the full documentation of IAH's history since 1956 under the guidance of Willi Struckmeier is still receiving support from many directions, for which we are very grateful. Some of this valuable material will soon be placed on an updated history section of the main

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IAH website. A number of IAH chapters have taken the opportunity of the 60th anniversary to document their own histories and to hold celebratory meetings, some of which are reported in this newsletter and more are planned.

JOHN CHILTON

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 associated members of the International Association of Hydrogeologists, reaching more than 4000 people and can also be freely downloaded by individuals worldwide.

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. Why not contact us now?

All copy must be provided electronically - please contact knicholson@iah.org for acceptable formats.

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

Email knicholson@iah.org



Thank you, and au revoir...

I've said it before, and I will say it again. IAH owes a huge debt of gratitude to its workforce of member volunteers at local, national and international levels, and this is no better illustrated than by the historical review articles that have been published in HJ during our 60th anniversary year, documenting our journey since

1956 and charting our future. 60 years of growth and development is a proud achievement for which we should all take credit. Anniversary festivities have taken place in many countries during the year and the 43rd Congress in Montpellier this September promises to be a celebration no IAH member should miss! If you haven't already, you should register now (<http://www.60iah2016.org>)!

2016 is also election year, an exciting opportunity for renewal and fresh vision, but also a time when we say a sad farewell to members of Council who have served us so well in the past. This year we say goodbye and sincere thanks to Willi Struckmeier, who completes his Council role as IAH Past-President, and to Mohammed Aboufirass, VP - North Africa and the Middle East, Luiz Amore, VP - Latin America and the Caribbean, and Jun Shimada, VP - Asia. To all of you, you may no longer be on Council but we very much welcome (and expect!) your continued involvement in IAH activities! We also gratefully acknowledge the outstanding contribution of Igor Zektser, VP - Eastern Europe and Central Asia, who passed away a short time ago after dedicating so many years to furthering the goals of IAH. Igor is well remembered for his global influence on hydrogeology and will be sorely missed.

I am also saddened to report that Shammy Puri will be relinquishing his position as IAH Secretary General, a post he has fulfilled with great insight, energy and professionalism for almost a decade. I've no doubt that Shammy will continue to work with us, and especially with the Early Career Hydrogeologists Network (ECHN) and the Commission on Transboundary Aquifers, to ensure that the "forward look" initiatives he helped to inspire stay on track. Thank you Shammy!

On a more positive side, I'm delighted to see such a strong slate of candidates for the new IAH Council. I encourage you all to read the biographies of each candidate – you can't fail to be impressed! All members, wherever you may reside, can vote for every position, so please do so, thereby showing respect for the candidature, even if the position is uncontested! I appreciate that the US Elections and the UK "Brexit" Referendum have, for most of us, turned the democratic process into something of a "spectator sport", but elections have been an important part of IAH history and go a long way to explaining our 60 years of progress and development. So please cast your vote!

Finally, as President, I should say my own goodbye. It has been a great honour and pleasure to serve you, our members, these past four years and I look forward to contributing in future in any way I can. IAH is quite an incredible association, an international "family" that shares a strong appreciation for the importance of groundwater at the global scale, and recognises the need for all of us to work together, exchanging our ideas and sharing our energies if we are to ensure the world's groundwater resources are appropriately managed and protected. These challenges are not unique to any one country or region and will not be resolved without a united, international effort. We may still have a

long way to go, and a lot of work to do before the global importance of groundwater is appropriately recognised and our efforts bear the fruit they deserve, but the continued work of IAH, supported by the still to be fully tapped energies of our commendably enthusiastic early career hydrogeologists will go a long way to ensure our goals are achieved.

KEN HOWARD, IAH PRESIDENT



...AND EIGHT YEARS A SECRETARY GENERAL *

In its 60th anniversary year, I am almost a decade older than the Association, though my first IAH recollections go back to 1971. I managed to attend the International Geological Congress (IGC) in Montreal, where then President Stevenson Buchan encouraged me to join IAH – probably the earliest precursor of today’s ECHN? As a student at Warsaw University, I had almost gone to the 1968 IGC in Prague, but the tumultuous political events of that year prevented me from doing so. Since those days IAH has been a constant companion in my career, but it was not until 1999, with veiled threats from the then Secretary General that I became more deeply involved, setting up the Transboundary Aquifers Commission and then being elected in 2008. My eight years as Secretary General have been the ‘icing on the cake’ of my professional experience as a hydrogeologist. As I stand down in 2016, I ask your indulgence in sharing a few thoughts looking back and looking ahead.

Soon after taking office in 2008, President Willi Struckmeier set me crystal ball gazing by asking ‘what will IAH look like in 2020?’ That was the start of the Forward Look for the period 2010 to 2020. Crystal ball gazing was becoming second nature to me, having recently helped to prepare the UNESCO IHP’s future strategy for their Phase VII, which required guessing six years ahead what the burning issues in water science would be. I must say that for the “IAH of the Future” I let my imagination run wild and developed a strategy paper ‘Forward Look 2020’, fully expecting it to be torn to shreds by the Council and the membership. The Forward Look strategy meeting in Reading in 2010 was a unique and a pleasurable experience for me – rather than my ‘future look’ being thrown out, it was adopted and adapted by a superb group of dedicated members! It has been a very satisfying five years to have been at the centre of this process that builds on the legacy of all those past efforts by so many IAH members. This is well described in the new history article in Hydrogeology Journal (Struckmeier, et al 2016). At the midway point in the 2010-2020 strategy I am leaving it in safe hands to achieve the targets that we set ourselves.

Holding the post of IAH Secretary General has been a remarkable opportunity. Through it I have strengthened our relations with UNESCO-IHP, a key international agency that explicitly supports hydrogeology. Working closely with the IAH Executive, Council and Secretariat, we have raised the profile of the Association in GEF, in UN WATER and with other UN Agencies, such as the International Law Commission and FAO. Taken together with so many improvements such as the ECHN, the newly dynamic Commissions and Networks, new national chapters, I have had the honour of participating in the growth and flowering of the Association and through it a change in the global ‘water community’s’

* with apologies to Solomon Northup.
https://en.wikipedia.org/wiki/Twelve_Years_a_Slave

[continued over...]

(...EIGHT YEARS A SECRETARY GENERAL)

[...continued from previous]

recognition that the role aquifers play in environmental sustainability cannot be ignored. I believe that I can say with cautious optimism that the hydrogeologists of the 2020s will turn to IAH as their preferred international organisation for professional development and global networking.

However, the caution I mentioned has to be an essential ingredient in future planning. I write this within a week of BREXIT, whose full scale implications are not yet clear. The Association is moving into a period of dynamic changes which could have impacts on our financial stability. It is for this reason that I started looking at the issue of income diversification in 2015. Forecasting income ahead into the 2020's is another crystal ball gazing exercise. Good old EXCEL is available to develop forecasts – a rather imperfect model much like earliest finite difference groundwater flow codes ... but in time they have improved. So too will the income diversification 'model'. I leave these efforts in the good hands of the new Council and my successor. Although I stand down in September from official duties in the service of IAH, I will continue to support the efforts being made, and wish to thank the membership for their confidence in my efforts as we look forward to the continuing development of IAH.

SHAMMY PURI, IAH SECRETARY GENERAL

UK VOTES TO LEAVE THE EU - IMPLICATIONS FOR IAH

On 23 June, voters in the United Kingdom chose by a narrow majority of 52% to 48% to leave the European Union. As an international professional association with a global distribution of members, IAH obviously has to keep an eye on major political events especially if, as in this case, they are likely to have significant economic and financial implications.



One of the consequences of becoming truly global is that we need to operate in sterling, US dollars and euros. As a part of IAH's overall risk management strategy, and especially since the financial crash of 2008, we have maintained a close watch for likely major currency fluctuations and managed our funds in the three currencies accordingly. During the last few months in the run-up to the referendum, the IAH Secretariat has taken care to distribute IAH funds broadly in anticipation that, in the event of a "leave" vote, short term political and economic uncertainty would be quickly reflected in currency values. This is now happening.

In the longer term, there should be no major implications for the way in which IAH can work as a UK registered company and charity, although we will of course be monitoring events as normal and consulting with our accountant, bank and the Charity Finance Group as required. Members can be reassured that we are making every effort to ensure the security of our funds, of which their fees make up the major component.

SECRETARIAT

NEW IN THE IAH BOOK SERIES

Selected Papers on Hydrogeology (IAH-SP)

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



Solving the Groundwater Challenges of the 21st Century

Edited by Ryan Vogwill, University of Western Australia

Groundwater is integral to many human and environmental systems but there are significant challenges in dealing with the impact of anthropogenic activities on groundwater systems. These challenges need innovative solutions.

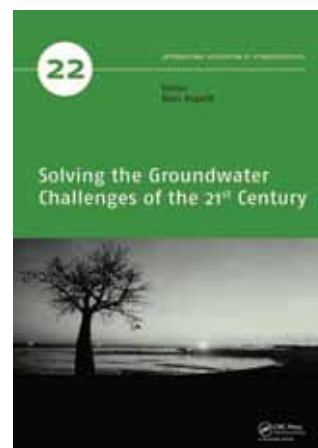
This book contains a wide range of content, from a discussion of the Australian regulatory framework for unconventional hydrocarbons, the extraction of which has the potential to significantly impact groundwater systems, to the best way to apply numerical models to help solve complex, real world problems. The impact of urbanisation on groundwater systems in the developing world is also discussed, at both a local scale in Nigeria and at a world scale. The use of innovative tools such as managed aquifer recharge, a critical tool in solving the groundwater challenges of the 21st century, is also discussed. The framework used to manage the legacy of agricultural contamination in Denmark, covering investigation to regulation and remediation, is also presented, focussing on how the many challenges in implantation were solved.

This book is targeted at professional hydrogeologists, experts in governance, law and policy as well as other professionals who need to incorporate an understanding of groundwater. The book will also appeal to politicians, resource managers, regulators and others interested in sustainable water supply.

April 2016: 128 pp; ISBN 9781138027473

Published price £63.99 (60% discount for IAH members)

<https://www.crcpress.com/Solving-the-Groundwater-Challenges-of-the-21st-Century/Vogwill/9781138027473>



Karst without Boundaries

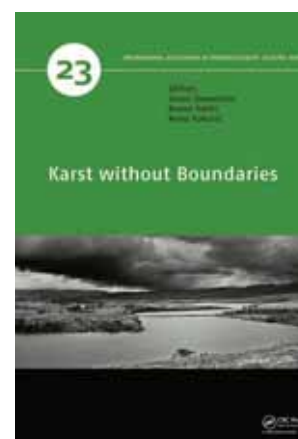
Edited by Zoran Stevanović, Neven Krešić, Neno Kukurić

Karstified rocks of different lithologies cover more than 10% of the continental surface of our planet. Some 20% or even a few percent more of the global population depends on karstic groundwater but in many karst areas all over the world there are limited natural resources including absence of drinking waters. The problems of water shortage, equitable water use or water protection from pollution become more acute in to transboundary regions. The Dinaric region is a classical karst area in which the borders of the countries newly established in the 1990s resulted in an urgent need to create an ambience for sustainable water management. The DIKTAS Project is one of the first attempts to establish sustainable integrated management principles in a transboundary karst aquifer of the magnitude of the Dinaric Karst System. This volume presents selected papers from the conference held in June 2014 in Trebinje, Bosnia & Herzegovina, including presentations of some of the project's achievements but also the results of a number of other research activities conducted in karst environments worldwide.

April 2016: 376 pp; ISBN 9781138029682

Published price £108.00 (60% discount for IAH members)

<https://www.crcpress.com/Karst-without-Boundaries/Stevanovi-Krei-Kukuri/9781138029682>



About the IAH book series

Books published by the CRC Press/Ballema - Taylor and Francis Group currently lie within two series titles: International Contributions to Hydrogeology (blue books) and Selected Papers on Hydrogeology (green books). IAH members receive a 60% discount.

<https://www.crcpress.com/IAH---International-Contributions-to-Hydrogeology/book-series/TFIAHICH>
<https://www.crcpress.com/IAH---Selected-Papers-on-Hydrogeology/book-series/TFIAHSEPAHY>
<https://iah.org/members/book-discount>



MEDIA FOCUS

A selection of groundwater features from around the world

CALIFORNIA, USA: STUDY OF DEEP GROUNDWATER SPARKS DEBATE

California is in the fifth year of its worst drought in more than a millennium, sparking wildfires, stunted harvests and water prices that have risen 10-fold for farmers. In response, the state is pumping millions of cubic metres of water from the ground, depleting natural water reserves faster than they can be replenished. Now, a controversial new study suggests that aquifers in the state's Central Valley may actually hold three to four times more freshwater than thought. The catch? Up to 35% of it could be vulnerable to oil and gas development—and much of the water is so deep that it currently isn't practical to extract.

The new study, the first to measure California's groundwater below 300 m (the depth of a typical well), has inspired both skepticism and cautious support among the state's scientists. "Any claim of a great increase in available freshwater for California is naive and wildly misleading," says Jay Famiglietti, a hydrologist at the University of California (UC), Irvine. But Thomas Harter, a hydrologist at UC Davis who was also not involved in the study, says it is "an important first step."

No one actually knows how much water California's aquifers contain. Satellite imaging can reveal how quickly these reservoirs are being depleted, but they can't reveal how much water these porous aquifers contain in the first place, says study co-author Robert Jackson, an earth scientist at Stanford University in Palo Alto, California. To accurately measure that, scientists need samples of water and rock taken directly from deep within the aquifers, which can reach depths of thousands of meters. Such samples are expensive and technically challenging to get, so the team of researchers decided to turn to a different source: public records.

<http://www.sciencemag.org/news/2016/06/first-study-california-s-deep-groundwater-sparks-debate>

NEPAL: KATHMANDU VALLEY GROUNDWATER LEVELS DRASTICALLY DOWN

A report prepared by the Groundwater Resource Development Board of Nepal reveals that a fall of eight metres in water level was measured in Pepsicola from 2008 to 2013, with significant declines also observed in Lubhu, Mulpani and Kirtipur. According to Kathmandu Upatyaka Khanepani Limited (KUKL), water demand in the Kathmandu Valley is 360 million litres per day, but due to inadequate availability of water, KUKL supplies only 95 million litres per day during the summer and winter and 154 million litres in the rainy season. It obtains 50 per cent from groundwater sources by means of shallow and deep tube wells. Part of the shortfall is made up from abstraction by numerous private wells, causing the decline in levels in parts of the city.

<https://thehimalayantimes.com/nepal/valley-groundwater-level-dramatically/>

HOW MUCH DOES GROUNDWATER CONTRIBUTE TO SEA LEVEL RISE?

Groundwater extraction and other land water contribute about three times less to sea level rise than previous estimates, according to a new study published in the journal Nature Climate Change. The study does not change the overall picture of future sea level rise, or the fact that future groundwater contribution to sea level will increase as groundwater extraction increases, but may provide a more accurate understanding of the interactions between water on land, in the atmosphere, and the oceans, which could help to improve future models of sea level rise.

<https://www.sciencedaily.com/releases/2016/05/160502131407.htm>

GERMANY: GOVERNMENT AGREES TO BAN FRACKING AFTER YEARS OF DISPUTE

German politicians have approved a law that bans fracking, ending years of dispute over the technology to release oil and gas locked deep underground.

<https://www.theguardian.com/environment/2016/jun/24/germany-bans-fracking-after-years-of-dispute>

JAPAN: FUKUSHIMA ICE WALL WON'T STOP ALL RADIOACTIVE GROUNDWATER

An ice wall being built at the crippled Fukushima nuclear plant won't completely prevent groundwater from flowing inside the facility and leaking out into the earth as radioactive water, according to a chief architect of the project, TEPCO's Yuichi Okamura. Gaps in the wall and rainfall will still allow water to seep into the facility and reach the damaged nuclear reactors, which will create as much as 50 tons of contaminated water each day. The wall, which will be 1.5 km long, will consist of an underground pipe network stretching 30 m below the surface, around the reactor and turbine buildings. The pipes are designed to transport refrigerant cooled to -30° C to chill the nearby soil until it freezes. The barrier is being turned on in sections for tests, and the entire freezing process will take eight months since it was first switched on in late March.

<https://www.rt.com/news/341231-fukushima-ice-wall-groundwater/>



View latest at: <https://iah.org/news> (We welcome suggestions - email info@iah.org)

Get a GRIPP on Groundwater

GRIPP stands for Groundwater Solutions Initiative for Policy and Practice. It is a partnership initiative that aims to unite forces to address the global challenges of groundwater, especially in emerging and developing countries. These challenges include both situations where groundwater presents a significant resource to be developed sustainably for economic growth and livelihoods – as well as where groundwater depletion and degradation are rapidly emerging as constraints for further development and for public and environmental health. GRIPP wants to take a 'Solutions' approach, working at the interface between research and implementation and with international, national and local partners. GRIPP wants to attract partners with diverse backgrounds and expertise in tackling groundwater issues from a host of disciplines, recognizing that understanding and solving groundwater challenges need integrated and holistic approaches.

GRIPP is led by IWMI (International Water Management Institute) and represents partners like IAH, IGRAC, MetaMeta, Daugherty Water for Food Institute, Africa Groundwater Network, Kickstart, Smart Water Metering and the two research programmes under CGIAR: Water, Land and Ecosystems; and Policy, Institutions and Markets. GRIPP will be launched at the IAH Congress in Montpellier and you are invited to participate in the discussions on the work programme.

KAREN VILLHOLTH

 <http://gripp.iwmi.org/>



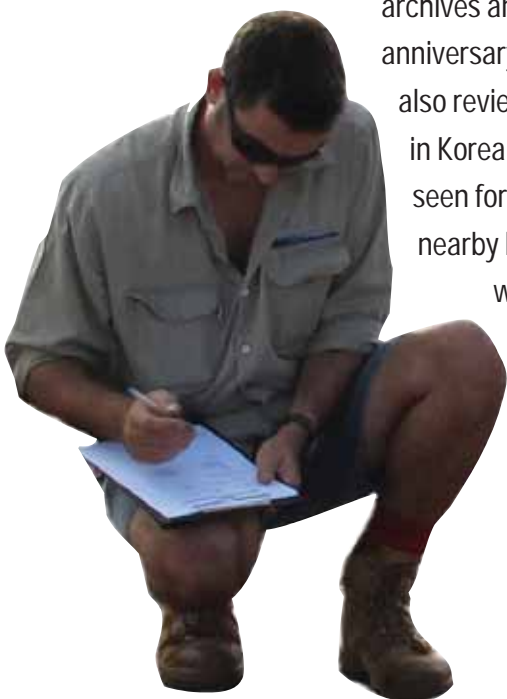
EXECUTIVE MEETS AGAIN IN UK

The IAH Executive Committee met again in Dorchester on Thames in late June. Amongst the many agenda items, the draft of the previous year's formal accounts were reviewed, indicating a provisional deficit of income over expenditure of £28,600. Some of the final details are still being checked, and full information will be provided in the 2015 accounts and annual report in the normal way.

With improvements to member benefits always in mind, an association with our educational and charitable objectives should be using its resources as fully as possible. This does not, however, mean that operating deficits can be sustained continuously and the preliminary budget for 2016 prepared for the February executive meeting indicated that, even with existing commitments, it would not be easy to balance the books for the current year. This is partly a result of a greater portion of the cost of the Hydrogeology Journal editorial team falling on the Association following the major re-organisation at Springer, as reported in the last newsletter. The IAH Executive and Secretariat are keeping a close eye on routine operating costs and on travel expenditure. We are also continuing efforts to increase and diversify IAH's income and the meeting included detailed consideration of a strategy to develop new approaches to commercial support and sponsorship, which are still being formulated. You can continue to do your part by encouraging colleagues to join or renew so that 2016, our 60th anniversary, sees another year of healthy membership.

Other prominent agenda items included the preparation of the IAH history reports, archives and papers (pages 12 and 13), and preparations for celebrating the anniversary during the year, including at Montpellier (see page 26). The Executive also reviewed preparations for the 2017 congress in Croatia (page 21) and for 2018 in Korea, to which IAH President Ken Howard had made an invited visit in April and seen for himself the high quality of the Daejeon Convention Centre facilities and the nearby hotel accommodation. Both 2017 and 2018 organising committees will be well represented in Montpellier to promote their congresses, provide further information and to answer any questions.

JOHN CHILTON



IAH Executive Manager

EXPRESSIONS OF INTEREST SOUGHT



After more than eight years as IAH Executive Manager, John Chilton has decided the time to move on is approaching.

This is a very important post for the Association, and forms the essential link between the elected Council and Executive who are our directors and trustees and the paid Secretariat. The Executive Manager is responsible for the financial management of the Association and the formal reporting to meet our obligations as a company and charity registered in the UK. The Executive Manager

also leads the Secretariat team of four based in the UK in carrying out its regular reporting tasks, administering IAH's membership, and communicating with all of the component parts of the Association – members, chapters, commissions and networks, publications team and congress organising committees.

John has greatly enjoyed working for IAH during this time and reports that it is the enthusiasm and support of the global IAH family and the hard work of the many volunteers who keep IAH's component parts running which have made the job so worthwhile.

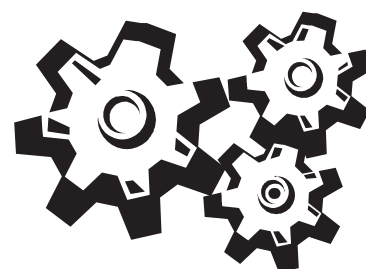
This could be an exciting opportunity and anyone who is potentially interested in this part time post should contact IAH Secretary General Shammy Puri for further information.

SECRETARIAT


 [Email ShammyPuri@aol.com](mailto:ShammyPuri@aol.com)

IAH MENTORING SCHEME

We are pleased to confirm that registration is now open to all interested IAH members, for both new mentors and mentees. Links for the registration forms are given below. Please complete the relevant form as fully as possible; this system allows everyone to provide details about their experience and interests and also to give preferences for which approaches to the provision of support may be most appropriate. We aim to make the best "matches" possible.



SECRETARIAT

 <https://www.surveymonkey.co.uk/r/2016mentorNA> (mentors/givers of advice)
<https://www.surveymonkey.co.uk/r/IAH2016mentee> (mentees/receivers of advice)
<http://iah.org/knowledge/mentoring> (general information)

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HAPPY BIRTHDAY, IAH!




RECORDING OUR HISTORY

As previously reported, we are taking the opportunity of our 60th anniversary to set down a definitive historical record of the association's first 60 years. Past President Willi Struckmeier is leading this initiative, supported by the Executive, Council and Secretariat and by the Time Capsule Project, our Early Career Hydrogeologists and our national chapters.

Drawing from the IAH archives and from personal memories, tables of councils, congresses, commissions, chapters and publications is now largely complete. In the new few months we plan check the information received and revise the history section on the IAH website. A comprehensive report which will include these tables is also being prepared. Look out for further announcements later in the year.

Two features have also been written for Hydrogeology Journal, to help bring greater understanding of IAH's history and position in the groundwater arena to a wider audience. The first was an Editors' Message announcing the 60th anniversary as the first article of 2016. The second, a longer article drawing on the assembled historical material appears in the August journal. Both are freely available to download.

 **HJ Editors' Message: IAH at sixty**
<http://link.springer.com/article/10.1007/s10040-015-1360-0/fulltext.html>

 **HJ: Reflecting on IAH's contributions to groundwater science and water management**
<http://link.springer.com/article/10.1007/s10040-016-1434-7>

We have continued to receive some interesting photographic contributions showing past IAH activities. Amongst these, below, we show one from a field visit of the Commission for Thermal and Mineral Waters, Egypt 2004; the other is of Callist Tindimugaya and Richard Taylor in Uganda during the early 1990s.



Your stories and photos wanted

As a contribution to the documentation of IAH and to celebrating the anniversary, our Early Career Hydrogeologists (ECHN) are inviting IAH members to send pictures from the beginnings of their careers. Send pictures by email with a short description, location and the photo author's name. Pictures from various times and places help a great deal to strengthen the personal dimensions of the evolution of the IAH family and we would be very happy to receive further contributions, either to the IAH Secretariat or via the ECHN.

 email: 60years@iah.org
echn.iah@gmail.com

CELEBRATING OUR BIRTHDAY

The main focus of IAH's 60th anniversary celebrations will come at the 43rd Congress in Montpellier in September. During the first day of the Congress on Monday 25th September, a morning plenary session (to follow the formal opening) is being planned in which invited presentations, panel discussions, videos and entertainments will combine to celebrate our 60th birthday, providing an opportunity to reflect on the past and look forward.

IAH Commissions and Networks will be contributing to the celebrations in Montpellier and in their own events elsewhere, as will our national chapters. In September, the British National Chapter is co-convening with the Hydrogeological Group of the Geological Society of London a two day meeting on "Groundwater: our hidden asset" at the University of Birmingham which will celebrate the IAH 60th anniversary and the Geological Society Year of Water. Please check our events listing for details. We are sure there must be more we have not heard about, so let us know about your own activities to celebrate the anniversary so that we can promote and report them in the coming months.

SECRETARIAT



<https://iah.org/submit-an-event>

<https://iah.org/events/category/iah-events>

Groundwater

Managing our Hidden Asset

13 – 14 September 2016, University of Birmingham, UK

A two-day conference to celebrate the International Association of Hydrogeologists 60th anniversary and the Geological Society Year of Water, hosted by the University of Birmingham. The conference will incorporate the **Ineson Lecture** given by **Professor Georg Teutsch**, Scientific Managing Director of the Helmholtz Centre for Environmental Research – UFZ, Leipzig, Germany and re-launch of **Groundwater our Hidden Asset** supported by the Groundwater Forum.



Groundwater is globally under significant multifunctional pressures and sustainable governance is critical for protecting our environment while also meeting our future needs.

Conference provisional programme and topics is outlined below

Provisional Programme

Tuesday 13-Sep-2016

AM: **Groundwater and energy**

- Water visioning for the oil and gas industry
- Renewable and nuclear energy
- Valuing groundwater in hydrocarbon E&P
- Shale gas and groundwater
- Carbon capture and storage

PM: **Groundwater resources**

- Groundwater drought management
- Modelling deployable output
- Managed aquifer recharge
- Groundwater and the Water Framework Directive
- Climate control and groundwater

Followed by Whitaker Medal presentation to Professor John Tellam and the Launch of revised edition of "Groundwater our hidden asset"

Drinks Reception Sponsored by



Evening Dinner Sponsored by



Further information: and registration <http://www.geolsoc.org.uk/Groundwater-Managing-our-Hidden-Asset>



Conference Contacts:
 Michael Butler
 m.b.butler@bham.ac.uk
 m.butler@imperial.ac.uk
 James Assam
 james.assam@bwhsian.com

Approximate Timings
 Registration 9:00am
 Talks 10:00am - 5:00pm
 Drinks reception and dinner on the 13th September

Venue
 Stranmillis Music Building auditorium
 University of Birmingham, UK
 For Registration see website

Follow us on twitter:
<https://twitter.com/search?q=gewmohs>

43rd IAH CONGRESS
 25-29 September 2016
 Montpellier, France
 CORUM CONFERENCE CENTER

REGISTRATION FEES (NET included)
 Registrations opens in January 2016 via the official website, with payment by credit card

Category	EARLY	STANDARD	ON SITE	CONTRIBUTION TO GALA DINNER
Full Conference (incl. breakfast, lunch, dinner, coffee breaks, water, and access to all sessions)	400 €	500 €	600 €	20 €
Student (incl. breakfast, lunch, dinner, coffee breaks, water, and access to all sessions)	250 €	300 €	350 €	20 €
Young Professional (incl. breakfast, lunch, dinner, coffee breaks, water, and access to all sessions)	300 €	400 €	500 €	20 €
Life Membership (incl. breakfast, lunch, dinner, coffee breaks, water, and access to all sessions)	1000 €	1500 €	2000 €	20 €
Life Membership (incl. breakfast, lunch, dinner, coffee breaks, water, and access to all sessions)	1000 €	1500 €	2000 €	20 €
Life Membership (incl. breakfast, lunch, dinner, coffee breaks, water, and access to all sessions)	1000 €	1500 €	2000 €	20 €

KEY DATES

- Call for abstracts: December 2015
- Registration opening: January 2016
- Deadline for abstract submission: March 31st 2016
- Acceptance for abstracts: May 10th 2016
- Deadline for Early-bird registration: June 15th 2016
- Third circular: August 2016

CONGRESS VENUE

- The Corum Conference Center

SECRETARIAT AND LOGISTICS: organizing@60iah2016.org
 • Secretariat and logistics: secretariat@60iah2016.org
 • Sponsorship: sponsorship@60iah2016.org
 • Sponsorship: sponsorship@60iah2016.org

www.60iah2016.org

SPAIN - DOUBLE ANNIVERSARY CELEBRATED IN MADRID

Responding to our call for national celebrations of IAH's 60th anniversary, the IAH Spanish Chapter (AIH-GE) organized an event in Madrid on 20th June. The event coincided with the 35th anniversary of AIH-GE, and was organized jointly with other Spanish associations - the Groundwater Club (CAS) and the Spanish Association of Hydrogeologists (AEH). After an opening ceremony session including representatives of the Spanish Ministry of Environment, Spanish Geological Survey (IGME) and the presidents of the three associations (AIH-GE, CAS and AEH), a presentation about hydrogeological experiences from the past was given by Ramon Llamas, Emilio Custodio, Andrés Sahuquillo and Juan López-Geta. Other presentations concerning the present situation and the future of hydrogeology in Spain were given by Juan Duran (investigation and administration standpoints) and Jorge Molinero (training and private companies).

A round table was organized involving participants from the three associations to discuss the role of Spanish hydrogeological associations as representatives of professionals and companies to confront society's challenges. According to a suggestion from AIH, members declared as Millennium Members in Cape Town in 2000 were nominated as Honorary Members of AIH-GE. In addition a diploma was given to all members of AIH-GE councils as recognition for their work in contributing to AIH-GE. More details can be seen on the web site recently created by AIH-GE in a similar environment to the main IAH site, particularly at the link given below.

Other major activities scheduled by AIH-GE include a training course on "Groundwater Modeling" in Valencia in July and a Spanish-Portuguese congress on groundwater in the second cycle of hydrological planning for the EU Water Framework Directive. Links with Ibero-america are always active, with the Argentine Chapter by way of Emilio Custodio and also with the 13th AHLSUD congress in Yucatan, Mexico on 22th-26th August which members of the Spanish chapter committee will be attending.

BARTOLOMÉ ANDREO

<http://www.aih-ge.org/index.php/2016/06/20/60o-aniversario-de-aih-y-jornada-de-hermanamiento-con-asociaciones-hidrogeologicas-espanolas/>
<http://www.aih-ge.org/>



IAH STRATEGIC OVERVIEW SERIES

Readers will be aware that one of the initiatives arising from the 2014 Working Group on Education report is the preparation of a series of Strategic Overview papers. The aim has been to inform professionals in other sectors of key interactions with groundwater resources and hydrogeological science, and to guide IAH members in their outreach activities. Six of these have now been prepared:



- Food Security & Groundwater
- The Energy Sector & Groundwater
- Resilient Cities & Groundwater
- Ecosystem Conservation & Groundwater
- Human Health & Groundwater
- Groundwater & Global Change

These papers are available on the IAH website. Condensing the most important aspects of a technical understanding of each topic, together with the key messages and priority actions into six illustrated pages was a tough task, but the feedback we have received so far suggests this has been successfully achieved. We would like to thank Stephen Foster and Gill Tyson especially for all their work and skill in coordinating the production of these papers, and also thank the many contributing authors. For the time being, this concludes our activity on the series, although discussions during the work have pointed towards other topics which could be considered for the series.

BRUCE MISSTEAR AND JOHN CHILTON



<https://iah.org/knowledge/learning-resources> (via IAH's Learning Resources page)

HYDROGEOLOGY JOURNAL IMPACT FACTOR RISES AGAIN

Great news for Hydrogeology Journal (HJ), whose impact factor (IF) has gone up from 1.966 (2014) to 2.028 (2015). The IF measures the yearly average number of citations to recent articles published in the journal; it eliminates the bias that can occur when counting citations/articles for large journals over smaller ones, and older journals over newer ones. Considering that HJ primarily seeks to achieve the IAH objective of furthering worldwide understanding, wise use and protection of groundwater, and to achieve a broad geographical spread of content

and authorship, the continuing steady rise of the IF is most pleasing and congratulations go to our hard-working editorial team! Updates on other journal metrics (Usage Factor, h5-index, Altmetrics, etc.) are posted on the Springer HJ website.

JOHN CHILTON, SECRETARIAT



<http://www.springer.com/earth+sciences+and+geography/hydrogeology/journal/10040>



SOFTWARE REVIEW: EEFLUX

Following a call in the May issue of News and Information to re-establish a previous newsletter feature of software reviews, IAH colleague Dawit Berhane has offered this review of EEFLux. We are grateful to him, and encourage other members to provide us with further such reviews, which could be very helpful to readers, using the same rating system derived from the former IGWMC at the Colorado School of Mines.

IAH SECRETARIAT

Agriculture is the largest user of water in all regions of the world except Europe and North America (FAO, 2002). Due to the advancement in remote sensing techniques, estimation of evapotranspiration (ET) at a regional scale has improved during the last two decades.

EEFLux (Earth Engine Evapotranspiration Flux) is a package for the calculation of evapotranspiration at 30 m resolution for the entire world. The software is available on the Google Earth Engine (<http://eeflux-level1.appspot.com/>). Computation of ET is based on the METRIC (Mapping Evapo Transpiration at high Resolution with Internalized Calibration) methodology, and uses Landsat satellite images in conjunction with weather data to compute and map ET (Allen, R.G., M. Tasumi and R. Trezza. 2007).

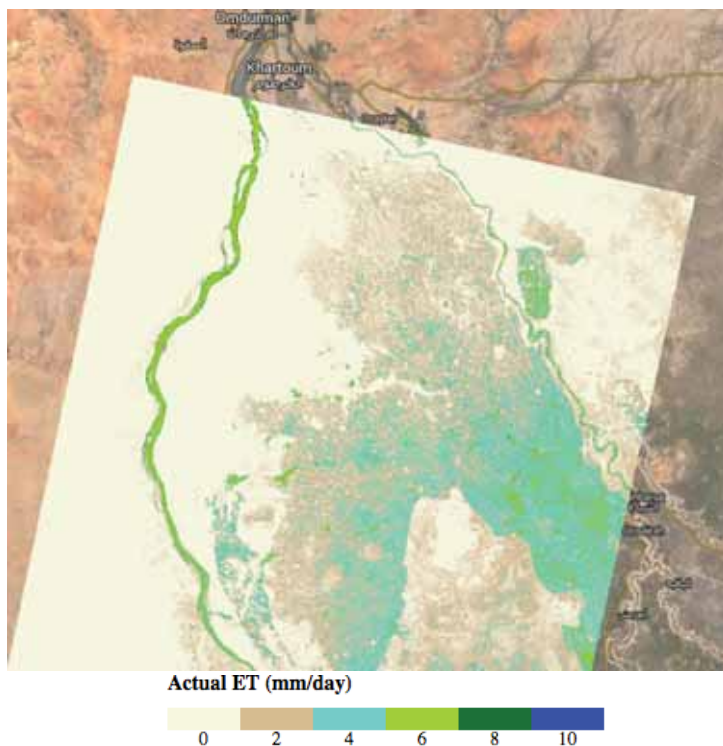


Figure 1. Regional ET for an area south of Khartoum, one of the largest irrigation systems in Africa. At Omdurman, the Blue Nile meets the White Nile. The extensive irrigation systems show high ET.

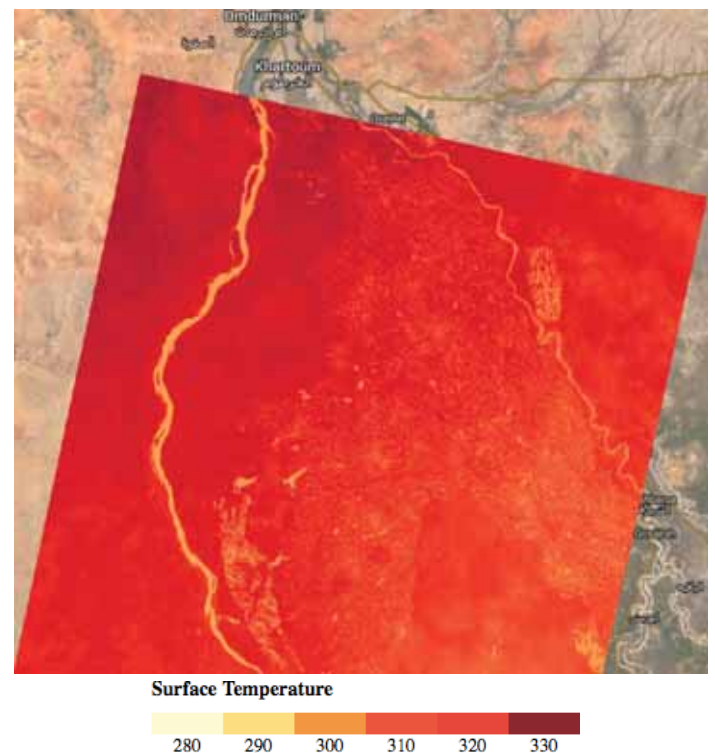


Figure 2. Land surface temperatures (LST) on irrigated parcels are lower when compared to non-irrigated areas.



Rating System 5=Excellent, 4=Very Good, 3=Good, 2=Satisfactory, 1=Poor			
Documentation	N/A	GUI	N/A
Application	5	Output/Plotting	5
Ease of Use	5	Best Feature	Production of ET maps at 30 m resolution with repeat coverage every 16 days. Ancillary maps: NDVI, ALBEDO, LST, ETref
Speed/accessibility/repeatability	3.5	Worst Feature	Accessibility depends on local internet speed and traffic; Estimation of ET on cloudy days is elusive; File export in raster format (storage hungry)
Overall Rating		5	

REFERENCES

Allen, R.G., M. Tasumi and R. Trezza. 2007. Satellite-based energy balance for mapping evapotranspiration with internalized calibration (METRIC) – Model. ASCE J. Irrigation and Drainage Engineering 133(4):380-394

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http://dnrc.mt.gov/divisions/water/management/docs/training-and-education/7.allen_et_al_metric_et.pdf

https://c3.nasa.gov/water/static/media/other/Day1_S2-5_Kilic.pdf

DAWIT BERHANE



CAN YOU HELP WITH SOFTWARE REVIEWS?

We are looking for individuals suitably skilled to provide us with short reviews of freely available technical software that might be useful to IAH members. We are not expecting long contributions every issue, but short pieces now and again. If you could help, please contact jchilton@iah.org.

JOHN CHILTON



[email jchilton@iah.org](mailto:jchilton@iah.org)

COMMISSIONS & NETWORKS

EARLY CAREER HYDROGEOLOGISTS (ECHN)

ECHN national branches

As part of its commitment to improve the involvement of early career hydrogeologists in the association's activities at both international and national level, ECHN is supporting the establishment of national branches around the world. Thanks to the work of young hydrogeologists worldwide and the support of national chapters, in 2016 the following new branches have been created: ECHN-Brazil (chaired by Rodrigo Mazione), ECHN-Canada (Carlos Maldaner), ECHN-Colombia (Karol Parra), ECHN-Portugal (Luis Costa), and ECHN-US (Adam Milewski). These new groups, together with the ones created in the previous years (ECHN-Australia, ECHN-Italy and ECHN-South Africa), will represent ECHN at local level and will work closely with national chapters to strengthen the role of early career hydrogeologists in IAH initiatives and to provide support to their professional development.

ECHN wish all the best to these newly established groups for the success of their activities and remains available to support both existing and future national branches. Are you considering creating a branch in your country? Have a look at the guidelines available on our website.

The photo shows a group of students from Brasil, taken by Rodrigo Manzione.



The IAH ECHN 'Coolest Paper' Competition

ECHN is happy to announce that the winner of the Coolest Paper Award 2015 is Professor Fred Ogden from the Department of Civil and Architectural Engineering, University of Wyoming, Laramie, Wyoming, USA, with the paper Ogden, F. L., W. Lai, R. C. Steinke, J. Zhu, C. A. Talbot, and J. L. Wilson (2015), A new general 1-D vadose zone flow solution method, *Water Res. Research*, 51, 4282–4300, doi:10.1002/2015WR017126. This paper, presenting an alternative to the one-dimensional partial differential equation (PDE) attributed to Richards that describes unsaturated porous media flow in homogeneous soil layers, has been recognized by many hydrogeologists worldwide as the "coolest of 2015".

Professor Ogden will receive the award during the forthcoming IAH congress in Montpellier, where he will also be invited to present his work in one of the parallel sessions. In addition, he will receive one year free IAH membership and a book of his choice from the IAH series.

ECHN's activities at IAH2016, Montpellier

ECHN is looking forward to meeting you in Montpellier in September! As for previous congresses, we are working in close collaboration with the local organizing committee to prepare a series of interesting activities targeted (but not exclusive) to early career hydrogeologists. Details will be announced soon on both the congress and ECHN websites. All early career hydrogeologists attending the congress are invited to include the ECHN logo (available for download from the congress website) in their poster and power point presentations to be eligible for the award of the best ECHN presentation at the congress.

VIVIANA RE AND CARLOS MALDANER



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



<https://www.linkedin.com/groups/3717583>



MANAGING AQUIFER RECHARGE (MAR)

ISMAR9 was organised by the IAH Commission on Managing Aquifer Recharge (MAR) in Mexico City between 20 and 24 June 2016. This was a significant and highly enjoyable event for the Commission and its partners, UNESCO, ASCE, BSMAR15, AHA and GRAC (Groundwater Resources Association of California). The MAR Commission thanks UNESCO for providing partial support to delegates from developing countries, which contributed to the success of this conference.

The event attracted around 250 participants from 23 countries, including a very strong Latin American contingent and received the contributions of 2 invited speakers, 80 oral presentations and 30 posters. The MAR Commission is fortunate to have a large camaraderie of scientists and engineers willing to share their experiences with each other so all may benefit. It is also grateful to a number of sponsors, notably CONAGUA, ANEAS, and UNAM and exhibitors for making ISMAR9 possible.

Recognising the huge opportunities for MAR, focus was given to overcoming the barriers to its adoption, by pointing to the large number of sites around the world (>1200; MAR Inventory Working Group, led by Catalin Stefan, TU Dresden and Nienke Ansems, IGRAC), and the value created at representative sites (MAR for Development Working Group led by Yan Zheng, UNICEF), including in financial and economic terms (in a new working group to be led by Andrew Ross, ANU). These working groups are complemented by another looking at the advances in MAR over the last 60 years. The Commission is also addressing the challenges of predicting clogging in MAR installations (Clogging Working Group led by Russell Martin). There are many other areas requiring greater attention, including the fate of pathogens in aquifers, and the thorny issue of balancing upstream and downstream benefits of stormwater harvesting in rural catchments. Open access special issues of J Water and Sustainable Water Resources Management will be produced to widely disseminate the scientific outputs of the meeting. The notes of the IAH-MAR Plenary meeting will be available from the MAR website in due course (URL, right).



Adriana Palma Nava took the lead in organising a fantastic conference in all aspects including the scientific programme and in engagement with CONAGUA, GRAC, AHA and IAH to discuss and develop a groundwater management declaration, which is currently being finalised for release. A highlight was the presentation of the Herman Bouwer Award to Mario Lluria and his gracious acceptance speech. The stunning venue, the Palace of Mines, was a great plus, and choosing the culturally vibrant historical city centre was a great idea (and transformed perceptions of Mexico City). A variety of practices that could be of benefit in Mexico City to slow further subsidence were discussed and presented in the technical exhibition.

The social programme was amazing – really raising the bar with the conference dinner and UNAM Engineering Faculty Orchestra, plus a mariachi dinner and tours. Delegates climbed up steep steps on pyramids and enjoyed the views from the top. The technical tour of one of the world's largest wastewater treatment plants was impressive. Overall this was a very warm and friendly conference that really helped to advance progress on the science and practice of MAR and expand friendships and networks.

The organisers were delighted to welcome António Chambel, IAH Vice-President for Programme and Science Coordination as a special guest to this excellent conference, which showed the vitality of the MAR Commission, and the utility of all IAH Commissions and Networks to fulfil important roles in leading the scientific work of our Association.

PETER DILLON AND ANTONIO CHAMBEL



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

[continued over...]

COMMISSIONS & NETWORKS

[...continued from previous]

REGIONAL GROUNDWATER FLOW (RGFC)

The Commission is pleased to announce that Professor József Tóth, the Lifetime Honorary Chair of RGFC, has been elected as a member of the Hungarian Academy of Sciences. IAH joins the Commission in offering congratulations to him!

The Commission is organising a session entitled “Verification of conceptual patterns and expected natural effects of regional groundwater flow by interpretation of relevant field observations” at the Montpellier congress. The RGFC will celebrate IAH’s 60th anniversary with a student competition on regional groundwater flow, and is pleased to announce the results of the first round of the competition held in May. Firstly we would like to congratulate all of the teams for their efforts to learn more about regional groundwater flow. The following teams (in random order) qualified for the second round to be held in Montpellier, where different regional groundwater flow topics will be presented by each of them: team of University of Rouen (France), University of Miskolc (Hungary), Institut Teknologi Bandung (Indonesia), China University of Geosciences (Beijing), Ecole Nationale Supérieure en Environnement, Géoressources et Ingénierie du Développement Durable (Bordeaux, France), University of Alberta (Edmonton, Canada), Eötvös Loránd University (Budapest, Hungary), TU Dresden (Germany), University de los Andes (Bogotá, Colombia) and University Laval (Québec, Canada). We are looking forward to meeting you in Montpellier in September!

The RGFC is co-sponsoring a session at the 2016 meeting of the Geological Society of America (25–28 September, Denver, Colorado). The session, entitled Approaches to Characterizing Groundwater Flow Systems at the Watershed-Scale for Water Management and Regulation, will explore characterization techniques and modelling methods to better understand groundwater systems in the context of the watershed-scale hydrological cycle, with an emphasis on integrating surface water, shallow groundwater, and deep basin-scale groundwater systems.

The chairs are Brian Smerdon and W. Payton Gardner and the sponsors are GSA Hydrogeology Division, IAH–RGFC, GSA Geology and Society Division.

JUDIT MÁDL SZŐNYI AND ADAM TÓTH



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



<https://www.linkedin.com/groups/8191261>

BURDON GROUNDWATER NETWORK FOR INTERNATIONAL DEVELOPMENT (IAH-BGID)

African groundwater Atlas for Africa launched

IAH-BGID and IAH members across Africa have been working closely with the British Geological Survey for the past three years to develop an online Africa Groundwater Atlas (see URL at end). For each of 51 African countries, the Atlas provides overview geology and hydrogeology maps and summarises the key aquifers in each country. There are sections on groundwater status, use and management, including groundwater monitoring, and the Atlas provides a gateway to the hydrogeology of each country. This has been an enormous task – but it’s not the final word. Some of the pages still have limited information, and for many others there may be more details to be added or updates to be made. If you have, or know of, information or resources that could help improve the Atlas, please get in touch.

IAH-BGID LinkedIn page launched

IAH-BGID is working to increase networking activities among members interested in groundwater and international development. For this reason the network recently launched a LinkedIn group which is gradually becoming the main pathway for communication and networking. All IAH members are invited to join the group and contribute to the different discussions and issues raised within the network.



www.facebook.com/iah.org

IAH-BGID is also developing a new website and other social media (e.g. Facebook, Twitter) which will be used to increase information sharing, networking and discussion with members and sister societies/groups.

IAH-BGID at the 43rd IAH CONGRESS in Montpellier

The network is getting ready for the forthcoming IAH congress in Montpellier, where the network chair, Alan MacDonald, and co-chair, Viviana Re, will contribute to a session targeted towards groundwater issues in developing countries. In addition, IAH-BGID is teaming up with ECHN and the IAH Secretariat to organize the 3rd edition of the IAH Book Exchange. All participants to the congress are invited to bring some spare books to be shared at the IAH booth.

IAH-BGID would like to invite all interested members to attend its Annual General Meeting in Montpellier at which the network's activities will be presented, together with possibilities to collaborate with us!

ALAN MACDONALD AND VIVIANA RE



Email Alan MacDonald- amm@bgs.ac.uk



<https://www.linkedin.com/groups/8468964>



<http://www.bgs.ac.uk/africagroundwateratlas/index.cfm>

Croatia - 2017 Congress Update

Although there is not so much news to report from Croatia, this does not mean that nothing is happening! The Croatian National Chapter of IAH is busy working on preparations for the 44th Congress "Groundwater Heritage and Sustainability" to be held at the Dubrovnik Palace Hotel from 25th to 29th September 2017. The organising committee has established eight main congress topics 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.

The city of Dubrovnik is the jewel of Croatian tourism, occupying a spectacular location on the eastern Adriatic coast and was declared a World Heritage Site by UNESCO in 1979. Mid-congress excursions are being planned to several hydrogeologically-diverse and interesting localities, including the Dubrovnik hinterland, the beautiful islands of the Elafiti archipelago and the Mljet National

Park. Post-congress excursions 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 localities.

At present the organising committee are working on an outline programme for the congress and refining the budget so that the registration fees can be set. The patronage of the President of Croatia has been confirmed and the committee are in discussion with other potential supporters and sponsors. The congress website has plenty of information about the congress, the venue and region, and the first circular can be downloaded. The organising committee will be coming to Montpellier to provide much more information and to tempt us to join them in Dubrovnik in September next year.

TAMARA MARKOVIĆ AND THE 2017 CONGRESS ORGANISING COMMITTEE

Congress website - <http://iah2017.org/>



NEW MEMBERS

A warm welcome to the following new members who joined our Association in the period 29 March - 22 June 2016:

ALGERIA

Prof Mohamed Redha MENANI

ARGENTINA

Prof Ornella MALASPINA

AUSTRALIA

Mrs Danielle PRINGLE

Ross CARRUTHERS

Chris GIMBER

Trevor LLOYD

Mr Scott RATHBONE

Samuel T EDMONDS

Mr Kevin O'CONNELL

Mr David MONAHAN-NEWTON

Mr Steven ROSS

Mr Matthew WILSON

Ms Hannah SHARP

Rachael CIESIOLKA

India CYWINSKI-JAN

Riccardo DIVITA

Rebecca DOBLE

Anusree KASARLA

Christopher SKINNER

Dr Phil HAYES

Gyembo GYELTSHEN

Mr Jorge MARTINEZ

Aminreza MEGHDADI

Dr Sue VINK

Nevenka BULOVIC

Mr Dean NEWBORN

Mr Tim BLAKE

Ms Susan WILD

Grant COZENS

Fiona DIXON

Olga FILIPTSOVA

Alexander KOEMAN

Adam ROGAN

Miilo SIMONIC

Professor Anthony JAKEMAN

Ms Megan SEBBEN

BELGIUM

Céline LAGARD

Dr Zainab ZOMLOT

BRAZIL

Dr Marcelo SOUSA

BULGARIA

Dr Lazar BEROV

CANADA

Mrs Debora JANOS

Sarah DIGNARD

Philip MAHER

Nikolai MATTISON

Mr Arman POLATBEKOV

Ms Judit DERI-TAKACS

Mr Kiene Antonio Barroso CHULVE

Dr Sandra RICHARD

Mr Jamie EMERY

HOSKIN SCIENTIFIC (c)

Mr Corey LUNMAN

Mr Rod MCKEOWN

Mr Peter PARE

Mr Shawn TERNAN

Mr Dick VERLAAN

Michael KILLAM

Mike WILTON

CHILE

Berta P ROJAS FERRADA

Patricio WALKER

Victor ALFARO

Carolina AMIGO F

Christian Antonio Avila SALAS

José Ignacio Diaz-Valdés COSTA

David Jiménez GÁMEZ

CHINA, PEOPLE'S REPUBLIC OF

Dr Xianwen LI

Mr Peng ZHAO

Dr Wei FENG

COLOMBIA

Mr Carlos Alberto Puentes ROMERO

Paula Andrea Aguilar DIAZ

Monica Del Pilar Alfonso PEREZ

Angie Milena Bello LEMUS

Carlos Esteban Benavides GUERRERO

Carolina DUENAS

Luis Felipe Fajardo GUIO

Laura Estefania Garzon ROJAS

Diego Fernando Jacome JULIO

Bryam Felipe Molano BARRAGAN

Miguel Angel MORENO

Miss Karol Parra CASTRO

Luz Angie Patino BALLESTEROS

Adriana Patricia Pina FULANO

Antonio PREZIOSI-RIBERO

Julian David Rojas DELGADO

Mr Edwin Yesid Saavedra CIFUENTES

Ivan Andres Vargas TINJACA

Jose Augusto Villegas IBAGON

Mr David FAJARDO

COSTA RICA

Mr Jorge Suarez MATARRITA

ECUADOR

Dr Benito Guillermo Mendoza TRUJILLO

FRANCE

Alexis GUTIERREZ

Dr Cristiana ARCIDIACONO-BARSONY

Dr Belle PIERRE

Dr Nicolas ROUX

Dr Sophie GUILLON

Mrs Christine BARBET

GERMANY

Prof Dr Randolf RAUSCH

Mr Frank MUELLER

Dipl.-Geoökol. Wolfgang DEINLEIN

Dr Martina aus der BEEK

Mr Markus GIESE



HUNGARY

Mr Tamás ÁCS

INDIA

Dr Surajit CHAKRABORTY
Dr B C JOSHI
Prashant RAI
Mr Vinod KUMAR SINGH
Pinky TANEJA
Ms Madhumita CHAKRABORTY
Mr Kousik DAS
Mrs Srimanti DUTTAGUPTA
Mr Pragnaditya MALAKAR
Mr Pramod ROKADE
Prof (Dr) Saumitra MUKHERJEE
Rumi MUKHERJEE
Mr Soumendra BHANJA
Ms Swati VERMA
Mr Palash DEBNATH
Dr Nidhi DIDWANIA
Mrs Anita GIRDHAR
Dr Sarita SACHDEVA
Dr Abhilasa SHOURIE
Tajesvi Bala CHADHA
Dr Veena SRINIVASAN

INDONESIA

Ms Anggita AGUSTIN

IRAN

Mr Pooria HOSEINI

IRAQ

Prof Abdul Hameed ALOBAIDY

IRELAND

Mr Pete RODGERS
Mr Luka VUCINIC

ITALY

Nazzareno DIODATO
Dr Ivana La LICATA

JAPAN

Dr Hiroaki ABE
Dr Jun YASUMOTO
Mr Shohei KANEKO

KENYA

Mr Maxwell Barasa WAFULA

MONGOLIA

Mr Batjargal DAMBA

MOROCCO

Mr Yassine ECHELFI

NEW ZEALAND

Joseph BYRON-JOYCE
Mr Tony REYNOLDS
Mr Robert BOWER
Mr Tony CUSSINS

PERU

Ms Margaret Acuña GONZALES

POLAND

Mr Krzysztof RACZYŃSKI

PORTUGAL

Dr Ana Paula PEREIRA

SERBIA

Vojin POPOVIC

SLOVENIA

Teja KERSMANC

SOUTH AFRICA

Ms Diana DUTHE
Dr Ricky MURRAY
Mr Johan SMIT
Ms Nthabeliseni SIGIDI

SPAIN

José Manuel Nieto LÓPEZ
Miguel RODRÍGUEZ
Francisco Moral MARTOS
Manuel Argamasilla RUIZ
Dr Alejandro Garcia GIL
Alfonso Garcia de Cortazar Ruiz de AGUIRRE
Jorge Garcia TASCÓN
L. David Rizo DECELIS
Pedro Agustín Robledo ARDILA
Rebeca Ruiz MARTÍNEZ

SWITZERLAND

Javier Garcia HERNANDEZ

TAIWAN

Mr Po-Yu CHUANG
Professor Yeeping CHIA

TOGO

Rachid BARRY

TUNISIA

Amira ZIADI
Dr Imen HASSEN
Dr Fairouz SLAMA

TURKEY

Uğur BOYRAZ
Prof Halim MUTLU
Dr Ali BÜLBÜL

UNITED KINGDOM

Helen L ROBINSON
Mrs Debbie WHITE
Mr James WATSON
Mrs Megan DURRANT
Miss Viktoria NEMETH
Dr Arnaud DURANEL
Mr Martin COLLING
Mr Michael RHODES
Mr Daniel O LEARY

UNITED STATES OF AMERICA

Dr Aristides PETRIDES
Dr Erin BROOKS
Mr Michael SCHOFIELD
Madan MAHARJAN
Kimberly BEISNER
Dr Farid ACHOUR
Dr Racha EI KADIRI
Dr Tess RUSSO

NB: Those marked (c) are new IAH corporate members.



Portugal

The “Lessons in Hydrogeology” is an annual series of itinerant lectures recently established by the IAH Portuguese Chapter with the support of hosting institutions. The aim is to promote the knowledge, potential and competence of hydrogeology as a scientific and technological discipline amongst academic and professional communities connected to groundwater. The Lessons are focused particularly towards future or early career hydrogeologists with the intention of stimulating them by bringing together professors and professionals in a broadly convened event. Each lecture deals with a specific subject or case study and also includes information about IAH and ECHN, followed by a period of open discussion. For the students, these will be participative “classes” which will stand out from their normal curricular activities and challenge them to interact with the other participants and to look at hydrogeology from different perspectives and experiences, testing their scientific creativity and critical thinking. For the established professionals, the Lessons present an opportunity to enhance connections between the academic and research community and the real-world application of hydrogeological knowledge and technology.

Chapter member Rui Hugman explains that the same Lesson will travel to several institutions in Portugal over the coming year. The first edition of the Lesson, “From impossibility to achievement: the Osso da Baleia (Pombal) water well-field project”, was presented in May at the University of Porto by Manuel Abrunhosa, educated in geology (University of Porto - 1980) and later specialized in groundwater hydrology at the Polytechnic University of Catalonia - Barcelona (CIHS - 1988). The audience was composed of students from the Master in Mining and Geo-Environmental Engineering, students from other institutions as well as colleagues from related public and private institutions.



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[...ed: this seems like an excellent idea that could be easily tried by other chapters.]



Belgium

Our national chapter for Belgium has recently launched a new website, patiently helping us to trial a multi-language plugin (Dutch, English and French languages used). The URL is below.

Along with this, the chapter has also recently hosted a study day “Groundwater and Climate Change”.



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



Iraq

We are pleased to be able to report on further activity by the new IAH chapter in Iraq. The General Commission of Groundwater of Iraq held a workshop with the cooperation of the IAH- Iraqi chapter on 4th June 2016, entitled: "The technology and management of groundwater exploration". Participants were from the Iraqi Ministry of Water Resources, the Iraqi Ministry of Oil, the Iraqi Geologist's Union, and from some Iraqi universities.

Presentations were: groundwater investigations and water well drilling techniques; activities of Al-Sharaq Iraqi company for drilling equipment and chemicals; climatic change impact on groundwater resources in the northern part of Iraq; water quality index as an effective tool for water quality assessment; environmental preservation and selection of best remediation method for contaminated water and soil; the resources of groundwater and pollution in the middle and southern parts of Iraq and their treatment.

At the end of the technical sessions, some recommendations were prepared and sent to the relevant directorates in the Iraq Water Resources Ministry.



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Greece

The Greek national chapter informs us that, following recent elections, the new committee consists of President Konstantinos Voudouris, an Associate Professor at Thessaloniki University, Vice President George Stamatis, Professor at the Agricultural University of Athens, Secretary Vassilios Perleros, consultant geologist, Treasurer George Stournaras, Emeritus Professor at Athens University and member Kimon Fountoulis, also a consultant geologist. In October 2017 the chapter will support the organization of the 11th International Hydrogeological Congress of Greece. We look forward to continuing to work with the new committee.



<http://www.iah-hellas.geol.uoa.gr>



Tunisia

The most recent General Assembly of the Tunisian association "Association Eau et Développement (AED)" was held on 2nd June. The President, Mr Rachid Khanfir, reported on AED activities carried out during the last two years:

- organization of several workshops related to groundwater overexploitation, treated wastewater reuse, the project of water code in Tunisia, water, employment and intensified irrigated agriculture;
- participation in several actions such as water governance (FSM2015), Arab Water Day, World Water Days, environment and climate changes, socio economic and cultural rights, water integrity, water policy in Tunisia, national day on water saving;
- participation in several projects such as MEWINA, SWIM-SM, WADIS MAR.

The activity report and the financial report presented by the treasurer, Mr Elyes Gaubi, were both approved by the members present who then elected the new bureau for the next two years: Mrs Faten Jarraya Horriche: President; Mrs Awatef Larbi Messai: Vice-president; Mr Rachid Khanfir: Treasurer; Mrs Raqya Al Atiri: General Secretary; Mr Haykel Mosrati: General Secretary Assistant; Mrs Mounira Zammouri: Member in charge of scientific research.

At the previous General Assembly in February, all participants had agreed that AED should represent IAH in Tunisia as the National Chapter; following the proposal from Faten Jarraya Horriche. Discussions to establish an IAH national chapter in Tunisia were initiated at the Marrakech Congress, and we are very grateful to Faten and to Regional Vice President Mohamed Aboufirass for their help in bringing these to a successful conclusion. We welcome this new chapter to the IAH family and look forward to continuing to support the chapter as much as we can.



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FUTURE CONGRESSES



Groundwater and Society - 60 years of IAH Montpellier, France

The French and German National Chapters of IAH are proud to host our 43rd Congress in Montpellier from 25 to 29 September 2016 and at the same time celebrate 60 years of IAH. It is completely appropriate that our French colleagues, who were so instrumental in establishing the association should host our anniversary meeting. Moreover, at their invitation, the German National Chapter, who also played an essential role in setting IAH on its way, have joined in organising the congress.

PROGRAMME

To recognise our 60th anniversary, the Congress programme will include a session of invited presentations, videos and discussions to reflect and celebrate the achievements of IAH, which will include an invited keynote lecture by Professor Craig Simmons from Australia. The session will also look forward to the further development of IAH and to the hydrogeological science of the future. This is being combined with a conventional technical programme of parallel sessions and poster presentations in eight congress themes, within which sessions are currently being established, some in collaboration with IAH commissions and networks. Details of sessions and conveners are given on the website and the provisional detailed programme will be available at the end of July. An exciting programme of ten congress field visits included within the registration fee has been prepared for 29 September. At the start of July over 700 participants from 77 countries had registered for the congress, and some of the field visits are already fully booked.

FURTHER INFORMATION AND KEY DATES

The congress website now has a considerable amount of information about the field visits, accommodation arrangements and other local information. The outline programme for the congress is given on the website and the detailed planning of the technical sessions is still underway at the time of writing. Congress registration is open and early bird registration closed on 21 June. A second circular with a provisional programme is planned and the final programme will be available at the beginning of September. The local organising committee are working hard to provide an excellent scientific programme and memorable social experience for IAH members and we look forward to seeing you in Montpellier to help us celebrate our 60th birthday.

CONGRESS ORGANISING COMMITTEE AND SECRETARIAT

 Congress website - <http://www.60iah2016.org>

BOOK EXCHANGE AGAIN IN MONTPELLIER

Wishing to continue the success of the free book exchanges at the last two congresses, the IAH Secretariat and the ECHN are planning to repeat this in Montpellier. During the congress, at a specific time to be decided, delegates will be invited to select a free book from those displayed at the IAH stand. So far we have had many satisfied (and a few disappointed) recipients, so we would urge members coming to France to look out groundwater-related books which they (or their colleagues along the corridor) no longer require and bring them to donate for the exchange. Almost everything was taken by grateful colleagues last year, so please find some space in your suitcase to bring along some books you no longer need for our free book exchange! We look forward to your support to make this a success again.

SECRETARIAT



Please find space to bring along groundwater-related books you no longer need for our free book exchange!

2016 IAH ANNUAL GENERAL MEETING


Notice is given that the 2016 Annual General Meeting of the International Association of Hydrogeologists will be held in the Corum Convention Centre, Montpellier, France on Monday 26th September from 18.45 to 20.15. 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.



Professor David Lerner is retiring and as a celebration of his academic career, the Department of Civil and Structural Engineering at The University of Sheffield are holding a symposium: 'Protecting our Water Environment' on Tuesday 20th September in The Diamond.

The symposium will be part of the Department's Centenary celebrations, celebrating 100 years of Civil and Structural Engineering. The symposium will be chaired by Professor Bob Harris and speakers will celebrate David's academic career, and showcase the past, present and future research undertaken by the Groundwater Protection and Restoration Group.



 https://docs.google.com/forms/d/1Qt44WKIFbE-CeDhbzbHnozJgT0DnjaFshuNYJlZL270/viewform?dm_i=13NC,4B5OT,NBXUO3,FURPZ,1

2016 - SELECTION

27 August - 4 September, Capetown, South Africa
35th International Geological Congress

The core topics for the Congress are Geoscience for Society, Fundamental Geoscience and Geoscience in the Economy. A total of 49 themes covering all disciplines in the geosciences will form the basis of the technical programme. Organised by IUGS and the South African Council for Geoscience, together with the Geological Society of South Africa and other collaborators from academia and industry.

Website: <http://www.35igc.org>



5-7 September – Neuchatel, Switzerland
Eurokarst 2016

The conference covers all topics related to Karst Hydrogeology and Carbonate Reservoirs. Organised by The Universities of Neuchatel, Franche-Comte and Malaga, The Swiss Institute of Speleology and Karstology and the IAH Karst Commission.

Website: <http://www.eurokarst.org/>

5-9 September – Valencia, Spain
X International Geostatistics Congress

Geostatistics with specific sessions on groundwater applications. The International Geostatistics Congress takes place every four years to gather researchers and practitioners in all fields with an interest in geostatistics. Organised by Technical University of Valencia.

Website: <http://geostats2016.upv.es> Email: jgomez@upv.es



13-14 September – Birmingham, UK
Groundwater: managing our hidden asset

A two-day conference to celebrate the International Association of Hydrogeologists 60th anniversary and the Geological Society Year of Water, hosted by the University of Birmingham. The conference will incorporate the Ineson Lecture and re-launch of "Groundwater our Hidden Asset", supported by the Groundwater Forum. Organised by British Chapter of the International Association of Hydrogeologists, The Hydrogeology Group of the Geological Society of London and the University of Birmingham.

Website: <http://www.geolsoc.org.uk/Groundwater-Managing-our-Hidden-Asset>



25-29 September – Montpellier, France
43rd IAH Congress: Groundwater and Society.

This year's IAH congress will celebrate the International Association of Hydrogeologists 60th anniversary while using ample opportunities to reflect, take stock and to assess the current state of hydrogeology within societies worldwide. Organised by The French and German National Chapters of IAH.

Website: <http://www.60iah2016.org>



28-30 November 2016 – Madrid, Spain
Congreso Hispano-Luso sobre las aguas subterranas en el segundo ciclo de planificación hidrológica
Organised by Asociación Internacional de Hidrogeólogos - Grupo Español y Grupo Portugués.
Email: congresos-aih-ge@aih-ge.org

29 Nov - 1 Dec 2016 – Abidjan, Ivory Coast
7th RWSN Forum - Water for Everyone

The Forum will explore how we are going to reach the Sustainable Development Goals (SDGs) in rural areas and small towns. What has worked well in the past? What needs to be done differently in the future? RWSN Forums have a unique character, with an emphasis on learning and sharing, and a practical rather than political focus. The event will be held in English and French. Organised by RWSN at the Skat Foundation, SDC, UNICEF, World Bank, WaterAid, IRC and the African Development Bank.

Website: <http://rwsn7.net/>



<http://iah.org/events>

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



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